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GROWTH AND DEVELOPMENT CENTRES IN REGIONAL DEVELOPMENT AND PLANNING IN SAUDI ARABIA: THE POTENTIAL IMPLICATION OF POLICY WITH SPECIAL REFERENCE TO THE AL-BAHA REGION

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This Thesis is submitted to the Centre for Planning University of Strathclyde, as a requirement for the Ph. D. in Urban and Regional Planning

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DEDICATION

To: My Parents

My Wife, Hamdah

My Son, Mohammed

My Daughters, Areej and Raja

ABSTRACT

The purpose of this study was to evaluate the potential viability of the proposed approach of hierarchical growth and development service centres in Saudi regional development and spatio-economic planning. This approach was proposed to minimise regional economic-development disparities, to provide for work-to-worker conditions, to help rural areas to retain their populations, to help in diversifying the Saudi economy, and to stimulate more effective integration and co-ordination of inter-ministerial programmes at regional and local levels.

After reviewing the theoretical and pragmatic basis of the theories which originally gave birth to the concepts of hierarchical centres and industrial concentrations - the central place and growth centre theories, the thesis considers the application and performance of similar policies - with particular emphasis on industrial growth centres in developed and developing countries. This enabled the extraction of issues for the purpose of speculating about the potential viability of the proposed hierarchy of centres in Saudi backward areas, for whose help the policy was primarily proposed. The extracted issues are then filtered and disaggregated into economic, social, settlement and institutional disciplines, to match the multi-disciplinary aims of the policy outlined in the Saudi national plans.

The thesis then derives lessons for the proposed development policy and for Al-Baha - the selected study region - from surveys of the Jeddah Industrial Estate and Yanbu Industrial City.

These lessons were primarily formulated in light of the analysis made from the information obtained via a questionnaire

survey (carried out by the researcher in April and May 1988) of 14 factories in Yanbu and 43 factories in Jeddah, which are the two geographically closest industrial areas to Al-Baha.

This thesis also reports the results of questionnaire surveys carried out in various locations in the Al-Baha study region: 4 hotels; 7 local wealthy people; 8 manufacturing industries; 50 Shieks (or heads) of villages; 116 local heads of household; and 149 metal, car and carpentry shops. These surveys indicate social, economic, settlement and institutional restraints on policy.

Bearing in mind the multi-disciplinary aims stated by the the Third Plan (1980-1985) for the policy, the thesis demonstrates the limited viability of backward Saudi regions for the policy of the proposed hierarchy of centres as spatial bases for industrial developments, for concentrations of other economic developments and for concentration of development services (e.g. agricultural banks) and ministry offices. Among the demonstrated limitations are the following:

i Factors of production (labour, capital, raw materials) are potentially insufficient to justify the viability of the hierarchical centres as an approach to massive industrialisation in Saudi backward regions (refer to P. 10.10);

ii Marketing and other linked conditions (e.g. costs of transporting imported raw materials) are potentially too inefficient for industries - should they initially establish - to continue to function in Saudi backward regions (refer to P. 10.12);

iii The rural industrial centres – should they be implemented – would be potentially unable to attract out-of-region enterprises, stimulate creation of enterprises from scratch, spread benefits to their backward spatial surroundings, or to stimulate the generation of external economies. They could not perform the role of Perroux's propulsive industries (refer to P. 10.15);

iv Potentially the policy of central concentration of other economic activities (e.g. tourism, agriculture) in the Saudi backward areas is likely to overlook the social and settlement aims of the Saudi regional policy in the context of upgrading or degrading centres' ranks in the hierarchy;

v The central concentration of development services and ministry offices in Saudi backward areas would potentially lead to cumulative causation of development in favour of centres at the expense of the backward peripheries. This will not provide for work-to-worker conditions, as the policy is aimed at doing, and will therefore be biased in favour of efficiency at the expense of social equity, particularly in the light of the demonstrated unwillingness of people to move from the non-central to central places, and the inefficient transport links in some backward areas. This would be unlikely to meet the expectation of a compromise between social equity and economic efficiency as advised by Islamic Principles (refer to Figure Two, Chapter Ten); and

vi Although the hierarchy of centres might lead to identical spatial distribution of ministry offices throughout the

country, it would be unable to stimulate more effective functional co-ordination of the inter-ministerial development programmes by this means alone.

From this analysis, the thesis concludes that the proposed hierarchy of growth and development service centres faces considerable difficulties to live up to the objectives stated for it by the national plan. However, within those same objectives, the thesis proposes, evaluates and concludesthat it would be feasible to adapt the policy with the following four complementary refinements:

i Concentrate non-oil manufacturing in the port cities, and encourage the establishment of rural industries whenever and wherever there are viable links with effective local factors of production (labour, raw materials, markets);

ii Relax the hierarchical approach to economic development, and target investments to real local potentials in the context of comprehensive regional plans;

iii Distribute relevant development services and ministry offices in Saudi backward regions, with locational priority to those areas with no or negligible potentials for economic development; and

iv Let the MOP and MOMRA also operate at regional levels. Meanwhile – for potentially more effective co-ordination of planning – introduce two new units to the Saudi institutional system: a Co-ordinating Committee and comprehensive regional plans (refer to Figure Two, Chapter Eleven).

Finally, the thesis briefly comments on how to get the

refined policy effectively implemented on the ground. It recomends also some further studies, in order to broaden and/or generalise the findings of the thesis.

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ABBREVIATIONS AND TERM DEFINITIONS

CPO : Central Planning Organisation

DAs : Development Areas

EZs : Enterprise Zones

MOMRA : Ministry of Municipal and Rural Affairs

MOP : Ministry of Planning

OECD : Organisation for Economic Co-operation and Development

REDF : Real Estate Development Fund

SAAB : Saudi Arabia Agricultural Bank

SIDF : Saudi Industrial Development Fund

ADMINISTRATIVE REGION: An area the boundaries of which are administratively – rather than functionally or geographically – delineated.

BACKWARD REGION: A region – whether administrative, functional or geographical – which probably has potentials which are not yet proven and programmed for development. It may be characterised by comparatively low rates of employment and economic developments. Although probably sharing such features with a region that is depressed, the backward region differs in being as yet not proven unable to retain employment and economic generators (e.g. various enterprises).

CENTRAL PLACE: A place that is naturally developed or artificially intended to provide for services (e.g. education, health) and probably small-scale employment generators which can be used by surrounding non-central areas.

DEVELOPMENT AREAS: Disadvantaged areas, characterised by comparatively high rates of unemployment and depopulation, which are favoured by public incentives in order to enhance their ability to stimulate the creation and attraction of enterprises, as both employers and spatio-economic development stimulators.

DEVELOPMENT SERVICES: Institutional services provided for the purpose of facilitating economic activities (e.g. agricultural banks and advisory centres).

ENTERPRISE ZONES: A new fashion with a trace of the growth (development) area concept, but applied in tightly defined geographical areas. They enjoy various incentives and exemptions from a wide range of taxes and financial levies. This is intended to enhance their ability to stimulate the creation and polarisation of enterprises.

EQUITY: A concept used in this thesis to imply minimization of differences in per-capita incomes, through improved accessibility to employment and opportunities to increase the incomes of disadvantaged groups of people.

GROWTH CENTRE: Natural or artificial concentrations of industries which can potentially, or are designed to, polarise enterprises and/or spread benefits to their geographical surroundings. It is not necessary, however, for a growth centre to be a central place of services in order to be so termed.

GROWTH POLE: The areas where industries are naturally concentrated (under purely free-market regulatory conditions) and from where benefits are diffused via various channels (factors of production: labour, raw materials, ...) to the surroundings. Probably for simplicity, Perroux (1955) related his analysis to abstract space - space as a field of forces - rather than to geographical space. Accordingly, except when reading about Spain (where industrial areas are called Poles) and/or quoting from others, the concept of growth pole will be relaxed from Chapter Two onwards, and replaced by the concept 'growth centre'.

HIERARCHY: A natural or artificial stratification of settlements, with each order (i.e. at the same level of stratification) defined according to the characteristics of the settlements within it. Normally, as we move up the hierarchy, we expect the number of settlements to decrease and the size of market and/or service area to increase.

INDUSTRIAL CITY: A city built for industrial developments as a prime function. It tends to be self-sufficient; comprises residences, markets, recreational areas, ports, schools, health services, etc. It tends to enjoy various concentrated industrial incentives. They are usually built for national economic rather than for social equity aims.

INDUSTRIAL ESTATES: These can be termed 'artificial growth centres', since they are usually intended to stimulate the mechanisms attributed by the growth centre theory to the naturally

concentrated industries (polarisation, spread of benefits, external economies). Unlike industrial cities, industrial estates tend to rely on their surrounding areas in terms of almost all services (education, shopping, etc.).

KEY SETTLEMENTS: A concept applied in the British rural planning. It represents – at least in principle – a centrally located rural settlement, in which some services (schools, health clinics, etc.) may be concentrated – mainly for economic efficiency purposes (i.e. less costs) – in order to be used by inhabitants of the key and the surrounding non-key settlements.

PROPULSIVE INDUSTRY: Consult P. 1.76.

RANGE OF GOODS: Consult P. 1.15.

THRESHOLD: Consult P. 1.17.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

INTRODUCTION: THE RESEARCH PROBLEM AND THE THESIS APPROACH

I.01 *This introduction is aimed at defining and justifying the research problem as well as describing the intended organisation of the thesis.*

THE RESEARCH PROBLEM

I.02 Although the first major oil discovery was in 1938, the Second World War prevented the full development of the oil resources in Saudi Arabia.

> "Until 1364 (i.e. 1944) the Kingdom's revenues were less than U.S. $4 million each year, but by 1368 (i.e. 1948) they had risen to the appreciable level of U.S. $85 million, ... , and for the first time, the Kingdom of Saudi Arabia had some, albeit limited, capital to invest in national development. Before then, the Government had limited revenues from an economy which was poor, with an estimated 90% of the population subsisting as nomads and peasant farmers." (MOP, 3rd Plan, 1980-85, p.8).

I.03 The flourishing oil market conditions noticeably enhanced the revenues of the Saudi Government since 1952 (Chapter Six will elaborate on the role of the Saudi oil revenues). This put the issue of introducing long and medium-term planning on the agenda of the Saudi Government. Consequently, the key structural characteristics and development requirements of the Saudi economy became identified in the context of the First Five-Years Development Plan (1970-75). However, three main constraints affected the implementation of this plan: inadequacy of infra-structural facilities, shortage of manpower and financial instability of oil revenues dictated caution for setting the pace of future growth. Nevertheless, the Plan's period witnessed sectoral shifts from agricultural employment to secondary and tertiary sectors like construction, trade, transportation and government.

I.04 The Second Five-Years Development Plan (1975-80) was prepared and approved in very different conditions from those prevailing five years earlier. Financial constraints became almost absent, as a result of the further enhanced oil conditions and hence revenues. Nevertheless, economic growth was still limited by a variety of manpower and infrastructural constraints.

I.05 Despite the noticeable attention paid by the Second Plan to extending inter-regional roads and to the provision for distributing health and educational services throughout the country, the Plan encouraged concentration of industrial and governmental investments in few urban areas. The Industrial Estates of Jeddah, Riyadh and Dammam as well as the industrial cities of Jubail and Yanbu were all established in 1975: the first year in which the Plan was put into action (this will be elaborated in Chapter Five). It was a strategy of the Second Plan to ensure the:

> "Encouragement of internal migration from rural areas with surplus manpower to urban areas with industrial employments" (the Second Plan, 1975-80, p. 13.)

I.06 As will be demonstrated in Chapter Eight, the cumulative causation mechanisms helped the development policy in favouring urban areas at the expense of rural areas. Rural Saudi Arabia remained backward as far as economic developments are concerned. The young active rural population migrated to cities where job opportunities were more available. Thus, rural areas were deprived of their active labour force to continue manning the existing agricultural projects. On the other hand, major cities suffered from spontaneous massive rural-urban migration. In the absence of effective urban planning, migrants illegally possessed pieces of land (the phenomenon of squatting) on which they built randomly:

such areas present a challenge to urban planning, development and redevelopment in some Saudi cities (e.g. the Sabil, Suhaifah, Karantina and Kandarah districts in Jeddah). Furthermore, tremendous pressures on infrastructure facilities in cities were experienced as a consequence of such massive rural-urban migration.

I.07 The Third Five-Year Development Plan (1980-85) came to realistically view the impact of such massive rural-urban migration on both rural (e.g. some agricultural lands surrendered to obsolesence) and urban (e.g. overcrowding and squatting problems) areas as merely symptoms for a real background cause: that is the economic development policy being in favour of urban areas at the expense of rural areas. The Plan implicitly suggested that the cure should be directed to the cause rather than to the symptoms. Therefore, the Plan proposed a hierarchical pattern of growth and development service centres throughout Saudi Arabia. This proposed policy was aimed mainly at helping the Saudi backward regions in order to reverse the factors which led to the massive rural-urban migration, and hence to help in curing some of their consequences. The policy is proposed for economic, social, settlement and institutional aims: they will be documented from relevant government publications in Chapters Six, Seven, Eight and Nine. Having described the problem, the question then is: What is the aim of the research?

THE AIM OF THE RESEARCH

I.08 Although the hierarchical pattern of growth and development centres in Saudi Arabia was proposed in 1980, it has not been, as yet, clearly implemented. However, studies for possible complications from the policy are underway, under the supervision

of many concerned governmental institutions. It is hoped that this thesis will be valuable in illuminating facts which might help in shaping the final proposals regarding implementation and/or refinement of this policy in Saudi Arabia.

I.09 In order to effectively and positively contribute to the current attention and efforts given to speculating about possible implications of the proposed hierarchy of centres, the aim of this thesis is as follows:

'TO EVALUATE THE POTENTIAL VIABILITY OF THE PROPOSED HIERARCHICAL PATTERN OF GROWTH AND DEVELOPMENT SERVICE CENTRES AS AN APPROACH TO REGIONAL PLANNING AND DEVELOPMENT IN SAUDI ARABIA, WITH PARTICULAR REFERENCE TO POTENTIAL IMPLICATIONS OF THE POLICY ON AL-BAHA — ONE OF THE BACKWARD REGIONS FOR WHICH HELP THE POLICY IS PRIMARILY PROPOSED'.

I.10 The term 'policy viability' will be defined in Chapter Ten. The term 'potential' is repeatedly mentioned in the context of the objective due to the fact that this research is pro-active rather than reactive to the policy implications. In other words, as the policy has not yet been comprehensively implemented, and the study will speculate about the policy's potential factors of success and/or failure, and hence to suggest proposals which may enable better achievement of the objectives stated for the policy.

I.11 Having described the research problem and precisely spelled out the research aim, the next section will illustrate and describe the intended studies and organisation of the research.

THE ORGANISATION OF THE THESIS

I.12 This section will describe and justify the overall

organisation of the intended studies, and the aims and contents of Parts One, Two and Three.

ORGANISATIONAL MODEL

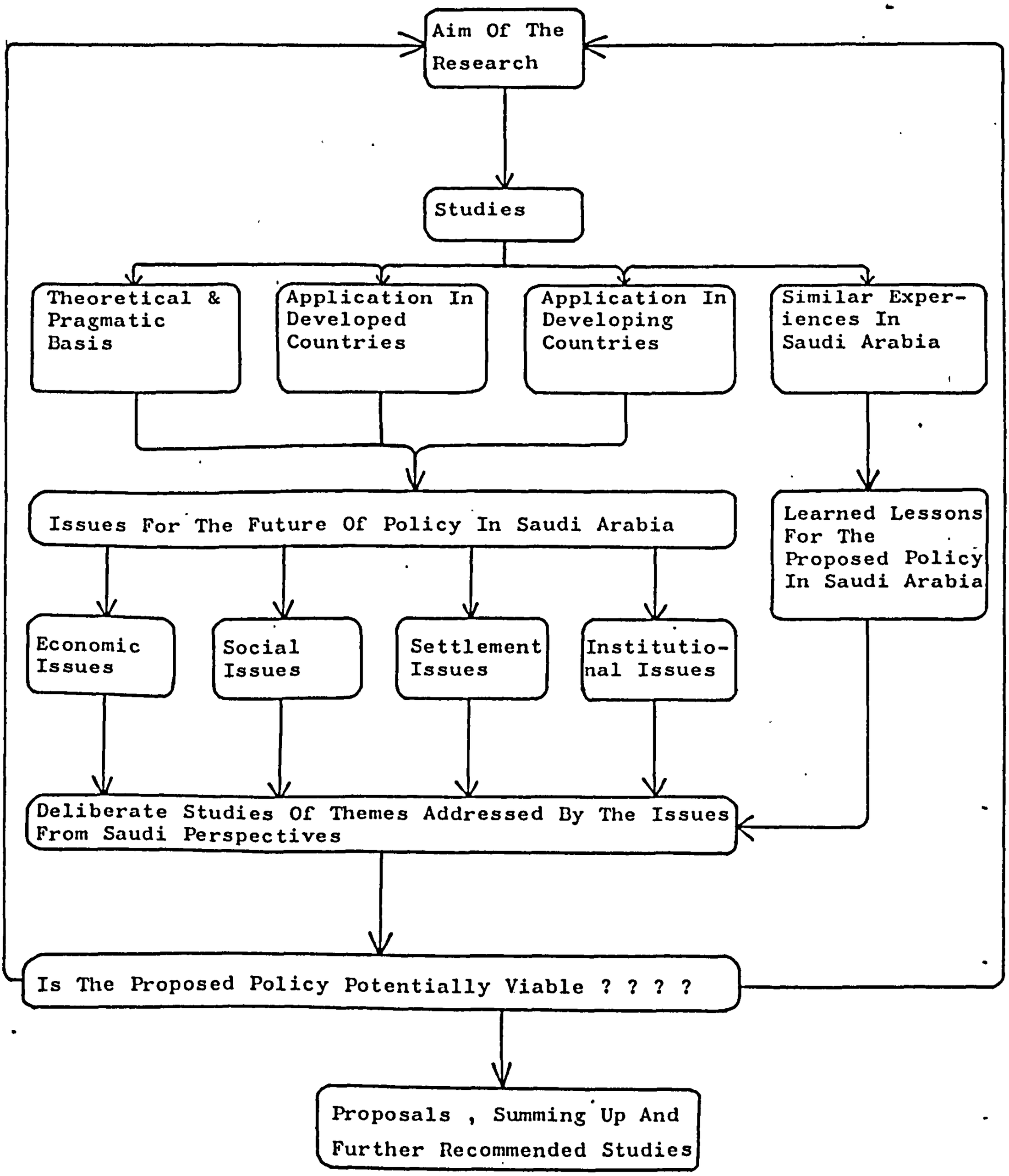
I.13 Figure One illustrates diagramatically the type and sequence of studies which it is deemed essential to carry out in order that this research will satisfactorily fulfill its aim.

I.14 The Model (Figure One) has the aim of structuring the research precisely and clearly. This is deemed a vital step in the light of which other research steps can be reasonably decided upon and stratified.

I.15 The aim of this research has been clearly outlined (refer to P. 1.09). It refers to the evaluation of the viability of the proposed hierarchy of growth and development service centres in Saudi Arabia. Clearly this policy has not been pioneered from scratch in Saudi Arabia. Some developed and developing countries have applied policies of a similar nature. Did those policies succeed or fail? What were the factors which led to policy performances in those countries? Are those factors and policy performances likely to be the same in Saudi Arabia? Does the policy have the potential ability to fulfill its aims in Saudi Arabia? These are only some of the questions which need to be carefully explored in order to ensure that this policy is the right one, at the right time and with promising potential for fulfilling the economic, social, settlement and institutional aims laid out for it in Saudi Arabia.

I.16 The Model (Figure One) suggests that some theoretical studies are essential for understanding the philosophies which initially gave birth to the concepts suggested by the policy (i.e.

Figure One : Organizational Structure Of The Intended Studies



growth centres and hierarchical centres). Theories of central places and growth centres are relevant to the research theme, with promising positive inferences to later detailed studies. They should, therefore, be critically studied. However, learning direct lessons from others' experiences, for Saudi Arabia, should be done with caution; factors of policy success and/or failure in other countries may not be exactly the same or directly comparable with those in Saudi Arabia. Rather, issues should be extracted from others' experience in order to be evaluated from Saudi perspectives.

I.17 The extracted issues will be disaggregated into economic, social, settlement and institutional disciplines: these will match the areas on which the policy is deemed capable of exerting positive impacts. The overall studies made for the issues should then be capable of helping to answer the paramount question: Is the proposed policy potentially viable?

I.18 Having briefly described and justified the framework for the research (with reference to Figure One), it is worthwhile to highlight, in the context of the next three sub-sections, the aims and contents of each of the intended three parts in the thesis.

PART ONE: AIMS AND CONTENTS

I.19 This part is a fundamental one which will attempt to fulfill the following aims:

i Speculating about theories which gave birth to the concepts of growth and hierarchical centres;

ii Studying the application and performance of similar concepts in justifiably selected developed and developing countries;

iii Deriving, filtering and disaggregating issues which will be

studied from the perspective of conditions in Saudi Arabia;

iv Describing and justifying the methodologies of the applied survey and data gathering techniques; and

v Learning lessons for the proposed policy and for Al-Baha (the study region) from similar experiences in Saudi Arabia.

I.20 In order to meet these objectives, Part One comprises Five Chapters. Chapter One will study growth centre and central place theories: they are deemed relevant to the research aim, with a potentially promising contribution to later studies in the thesis. Having speculated about their individual theoretical and pragmatic bases, Chapter One will proceed to highlight the issues on which these theories agree theoretically, but disagree pragmatically.

I.21 Chapter Two researches the application and performance of similar concepts in some developed countries: namely, Norway, Britain and Spain. The study of these cases in particular will be justified in the study of each particular section. Furthermore, the chapter examines the application and performance of similar policies in selected developing countries: namely, India, South Korea and Nigeria and miscellaneous experiences.

I.22 The experiences studied in Chapter Two are then employed in an attempt to answer the question: Is the growth centre policy successful? By this means, Chapter Three concludes with a statement of principle conclusions about growth centre and central place policy in practice. Thereby, using filtering questions (see Figure Two, Chapter Three), relevant issues are extracted for examination in the Saudi context. These are then be disaggregated into economic, social, settlement and institutional disciplines in order to be deliberately and individually studied in the context of Part Two.

I.23 Methodologies of sampling and data gathering can significantly influence the gathered information. Therefore, Chapter Four will describe and justify the applied methodologies in the data gathering and field survey. First of all, the selection of Al-Baha as a region of study will be justified. Choosing to speculate on the experiences of the Jeddah Industrial City and the Yanbu Light Industries' Park in particular will then be justified: in this context the planned and actually achieved sample sizes will be described. The agreed samples of workshops, factories and hotels in Al-Baha will then be spotlighted. Selection of the study village within Al-Baha will be justified: in this context information about the physical and socio-economic structure of the village will be provided. In conclusion, this Chapter will underline the practical limitations of the applied techniques of sampling and data gathering.

I.24 Having in Chapter Four justified their selection and the agreed sample from each, Chapter Five will utilise the collected data pertaining to the Jeddah Industrial Estate and the Yanbu Light Industries' Park in deriving lessons for Al-Baha (the study region) and for the proposed centres in general. These lessons will be determined from detailed studies for employment and employees' structure, market conditions and other miscellaneous matters. As illustrated in Figure One, these lessons have positive inferences formatters in the later detailed studies outlined in Part Two.

PART TWO: AIMS AND CONTENTS

I.25 Part Two has a single aim to achieve: to study matters addressed by the economic, social, settlement and institutional issues extracted from the experiences investigated in Part One. To

achieve this aim this part will comprise four Chapters.

I.26 Chapter Six will explore the previously filtered economic issues. It will commence by quoting from relevant government publications the economic aims and justifications of the proposed policy in Saudi Arabia. The trade-offs between regional equity and national economic efficiency will then be briefly described. The financial commitments and abilities to maintain fostering the proposed policy in Saudi Arabia will be examined. Afterwards, market conditions (demand, raw materials) and potential implications on the policy will be speculated upon. Finally, the potential ability of the proposed centres to stimulate polarisation and creation of enterprises will be objectively tested.

I.27 Chapter Seven will research social issues and their potential implications for success and/or failure of the policy. The Chapter will commence by quoting from relevant governmental publications the social aims and justification of the proposed hierarchy of centres. Afterwards, availability of Saudi workforce is a vital issue which this Chapter will explore. The current social conservatism against immediate effective participation in industrial activities in the Saudi backward areas is a workforce-related issue which will be objectively studied. Finally, the potential ability of the centres to achieve the aim of stimulating migration of inhabitants from non-central to central places will be tested.

I.28 Chapter Eight will explore the issues which concern the potential settlement implications of the proposed policy. The Chapter will commence by speculating about the inevitability of the occurrence of regional disparities as a natural phenomenon in economies of many kinds. Having done this, the next section will

then speculate about and highlight regional disparities in Saudi Arabia, as one of the conditions which led to the policy of hierarchical centres which aim to assist Saudi backward areas. The Third section of this chapter will then speculate about the applicability of the concept of hierarchical centres as spatial bases for economic developments throughout Saudi Arabia: reference will be made to the theoretical studies made in Chapter One. This, however, will be preceded by studies relating to the selection criteria and the intended functions of the proposed centres. Afterwards, potential implications of other settlement issues (transportation linkages, landforms and land ownerships) on the proposed policy will be objectively studied.

I.29 The proposed policy has institutional aims as well. Therefore, Chapter Nine will be devoted to speculating about the potential institutional implications of the proposed policy. The chapter will commence by providing a brief historical background about the Saudi institutional system. It will then focus on studying the structure and functions of the Saudi planning institutions and the extent to which vertical (between national strategies and local actions) and horizontal (between inter-ministerial programmes) co-ordination occurs. Later, the institutional justifications and aims of the proposed policy will be quoted from relevant government publications. The need for institutional refinements in Saudi Arabia will then be highlighted. In order to illuminate such need, the structure and planning functions of Scottish local government will be critically referred to as a case study of some relevance.

I.30 Part Two will accordingly study the economic, social, settlement and institutional issues which will have been filtered

in Chapter Three. Speculating about these multi-disciplinary implications will effectively assist the final evaluations and formulate the final proposals, in Part Three.

PART THREE: AIMS AND CONTENTS

I.31 This part attempts to achieve two objectives: first, evaluating the potential viability of the proposed policy and; second, formulating relevant and realistic proposals.

I.32 Chapter Ten concentrates on answering the question: Is the proposed policy potentially viable? It will start by defining the term 'policy viability', from the view of the purpose of this research. Because the proposed hierarchy of centres is intended for different functions (as will be described in Chapter Eight), Chapter Ten will evaluate the potential viability of the policy from four viewpoints:

i The policy as industrial centres;

ii The policy as hierarchical concentrations for development services and ministerial offices;

iii The policy in view of other economic functions: the case for tourism in Al-Baha; and

iv An aggregate view: the centres, bearing in mind all the functions attributed to them.

I.33 Chapter Eleven will come to formulate, evaluate and select from possible alternative refinements. It formulates institutional refinements, and spotlight the roles of institutional bodies in getting the proposed refined policy effectively implemented on the ground. Finally, further recommended studies will be provided in the context of the final conclusion of the whole thesis.

PART ONE: CONCENTRATION APPROACH TO ECONOMIC DEVELOPMENT; THEORIES AND EXPERIENCES

This part has several aims to fulfill (refer to P.I.19). However, they can be aggregated into two fundamental objectives: first, extracting from theories and similar experiences issues which should be studied from Saudi perspectives in order to clarify the evaluation of the potential viability of the proposed hierarchy of growth and development service centres in Saudi Arabia; second, learning lessons for the proposed policy from similar Saudi experiences.

CHAPTER ONE: CENTRAL PLACES AND GROWTH CENTRES; THEORY, PRACTICE, CHANGE IN FACE OF TECHNOLOGY AND ROLE IN PLANNING AND DEVELOPMENT

1.01 *Reading about growth centre and central place theories seems to be of potential benefit for later analyses and evaluations. This is mainly because the two concepts of growth and hierarchical centres (both are embodied in the proposed policy in Saudi Arabia) have been initiated by the theories of growth centres and central places, respectively. However, this chapter will study each theory independently, and then speculate in the third section about the issues on which both theories agree in theory but disagree when adding geographical space to the game.*

CENTRAL PLACE THEORY

HISTORICAL BACKGROUND

1.02 Al-Mugaddasi, a Moslem geographer, was perhaps the first to describe urban settlements in purely hierarchical terms. He visited most of the Moslem world and, as long as 1000 years ago

(i.e. in 985-86), he reported his findings - during twenty years of travel - in his book: The Best Classification for the Knowledge of Regions. (Berry, Conkling and Ray - 1976)

1.03 Al-Mugaddasi used the hierarchical levels in the army - as a tangible hierarchical classification - to express the pattern of settlements which he visited. According to Berry, Conkling and Ray (1976, p.226), he reported:

> "In my grading system of Settlements, The Amsar (singular Misr) are comparable to kings; the Qasabat (singular Qasabah) are comparable to Ministers; the Mudun (singular Madinah) are comparable to Cavalrymen; and the Qura (singular Qaryah) are comparable to soldiers."

1.04 Two points can be implicitly extracted from the above quotation:

i Al-Mugaddasi believed that places are structured in a hierarchical pattern just like the levels in the army; and

ii In the army, the soldier can become a Cavalryman, the Cavalryman can become a Minister - although more difficult - and the Minister can become a King - although even more difficult. Likewise the settlements of lower orders can achieve a higher order, although this comes on rare occasions as we go up the hierarchy.

Al-Mugaddasi did not explain the reasons behind the tendency of settlements to be formed in a hierarchical pattern. This can be attributed to his interest as a geographer: he was interested in the question of 'what' rather than 'why', like most geographers. However the thoughts of Al-Mugaddasi largely disappeared for about 900 years until, in 1933, the German scholar Walter Christaller attempted to answer the question: Are there laws controlling number, sizes and distribution of settlements? He studied the structure of settlements in Southern Germany, pragmatically, and

initiated his famous theory: Central Place Theory. (Baskin, translation for Christaller 1966).

1.05 King (1984) argued that the intelligent thing about Christaller's theory is its ability to describe places as hierarchical to central settlements and with different roles and importances. He also argued that Christaller's hexagonal market areas might not be found in many cases other than Southern Germany. Accepting Leslie's arguments, the intelligent part of the theory was initiated by Al-Mugaddasi as far back as 1000 years ago. However, Christaller introduced concepts like 'threshold' and 'range of goods' which contributed to speculating about laws that regulated locational decisions of services and goods throughout the agricultural area where he made his analyses. Therefore, Al-Mugaddasi's ideas were simply descriptive while Christaller's were analytical and of great help in casting light on the factors influencing the selection of a location for accelerated growth.

1.06 In 1939 – just six years later than Christaller's theoretical propositions, another German scholar in the person of August Losch came to analyse the locations of goods in urban settlements, through applying advanced mathematical calculations. His work will be highlighted later in this chapter.

1.07 Many other pioneers contributed to analyses and interpretation of reasonings behind firms' selection of locations – some of whom are: Von Thunnen, Walter Isard, Palander, Weber and many others. Nevertheless, Christaller (1933) and Losch (1939) were the two eminent figures, who dealt with central places in general rather than dealing only with singular functions.

1.08 The theories of Christaller and Losch came to influence significantly the politico-economic support given to growth centre

and central place policies applied in regional development and policy in many Western countries in the 1950s, 1960s and 1970s. Many other newly industrialising and under-developed countries applied such concepts for different aims. Therefore, the details of these theories will be outlined, analysed and evaluated in the following sections.

THEORETICAL PHILOSOPHIES

1.09 The central place theory has played an important role in urban, rural and regional planning and policies all over the world. Many planners, economists and geographers have written about the different aspects of this theory. As previously spotlighted, this thesis aims at examining viability of the central place concept – besides that of growth centre – as a development policy in the form of the proposed hierarchy of growth and development service centres throughout Saudi Arabia. Therefore, it is a logical approach to introduce, discuss and evaluate the theories of central places and growth centres in the introductory sections of this thesis. To do so, the work of the two German scholars (Christaller and Losch) should be respectively and critically outlined.

Walter Christaller's Theory

1.10 Christaller's book (1933) attempts to answer the previously mentioned question: Are there laws which determine the number, sizes and distribution of towns? Christaller believed that there were such laws and that they should be of "special economic – geographical nature". (Christaller, translated by Baskin 1966, p.3). According to Christaller (translated by Baskin 1966), no researchers prior to him had tried to relate classical economic

theories to geographical or spatial distribution of places except Von Thunen, Alfred Weber and Englander.

1.12 Von Thunen sought to find out about the laws according to which spatial distribution of different agricultural production units is established. Alfred Weber approached the same task but in relation to location of industries. Englander put forward valuable analyses of how the location of markets and raw materials influence the location of industry. He placed great emphasis on the cost of transportation in such cases. Therefore he was able to relate some economic factors (cost of transportation) to spatial terms (decisions upon the selection of a location). (Christaller, translated by Baskin 1966).

1.13 Accepting these arguments, Christaller made a giant step towards studying the effects of purely economic factors on spatial locations and patterns. Nevertheless, he argued that:

> "It should be stressed that the theory offered here is not complete. We set forth such relationships as are of considerable importance for the clarification of the concrete questions asked here. Therefore, the theory is not developed strictly systematically, but rather pragmatically". (Christaller, translated by Baskin 1966, p.5).

1.14 To find out about the laws which determine the number, size and distribution of towns, Christaller applied some pragmatic studies and analyses to a plain agricultural area (with no natural constraints to developments and with only homogeneous market towns), in Southern Germany. However, according to the above quotation, his pragmatic study was only for " ... clarification of the concrete questions asked ... ". He believed that his theory was "incomplete" and he left the door wide open for researchers to test his findings in other parts of the world, and maybe to complete what he called an "incomplete" theory.

1.15 Prior to dealing with pragmatic analyses of the structure of settlements in Southern Germany, Christaller – as argued previously – introduced two important concepts: the 'range of goods' and the 'threshold'. He divided the former into an upper limit and a lower limit range. The upper limit range represents the demand side, and is defined as:

> " ... The distance up to which the dispersed population will still be willing to purchase a good offered at a central place" (Christaller, translated by Baskin 1966, p. 50).

1.16 The lower limit range represents the supply side, and is defined as:

> " ... minimum amount of consumption of this central good needed for the production or offering of the central good". (Christaller, translated by Baskin 1966, p.54).

According to King, L.J. (1984), Christaller acknowledged that density and distribution of population would affect the range concept. This implies Chtistaller's awareness of the possibility of obtaining different results if pragmatic studies were based on an area other than Southern Germany – with different population density and distribution.

1.17 The second important concept introduced by Christaller is the 'threshold' value for a central place's function. It is strongly related to the lower limit of the 'range' discussed above. In other words, the 'threshold' concept stands mostly to express the minimum level of demand required to sustain the existance of a certain function.

1.18 Having introduced these two important concepts, it is worthwhile summarising the ways in which Christaller used them to interpret the arrangement of places in a hierarchical pattern in Southern Germany, as follows:

i The 'market town' is the smallest unit in the region in Christaller's analysis. He acknowledged the existence of towns which are not built on a purely marketing principle (e.g. mining towns, holy towns, ports, ... etc.): no such towns were encompassed in the plain agricultural land on which Christaller built his analyses. The main function of a 'market town' is to provide goods and services for its surrounding market area. The boundaries of the market areas can be determined by the 'range' of goods existing in such market towns. Therefore, such market towns locate centrally within their market areas, and hence they can be called 'central places';

ii Expensive goods tend to be distributed from centres where they can be exposed to large numbers of customers, so that their 'thresholds' can be high enough to economically justify their existence. Functions tend to locate in centres where profitability may be better achieved;

iii Lower order places offer convenience goods that are purchased within small market areas. Accordingly, the range of a low order convenience good is smaller than that of a high order convenience good;

iv Higher order places are less in number and larger in terms of market areas and sizes of functions. They provide goods with greater ranges (i.e. the willingness of customers to travel to buy them). Their functions are more exposed to customers, because their market areas are large. Therefore, goods in higher order places have larger 'range' and 'threshold' measures than those in lower order places; and

v Therefore, a hierarchy of central places exists with

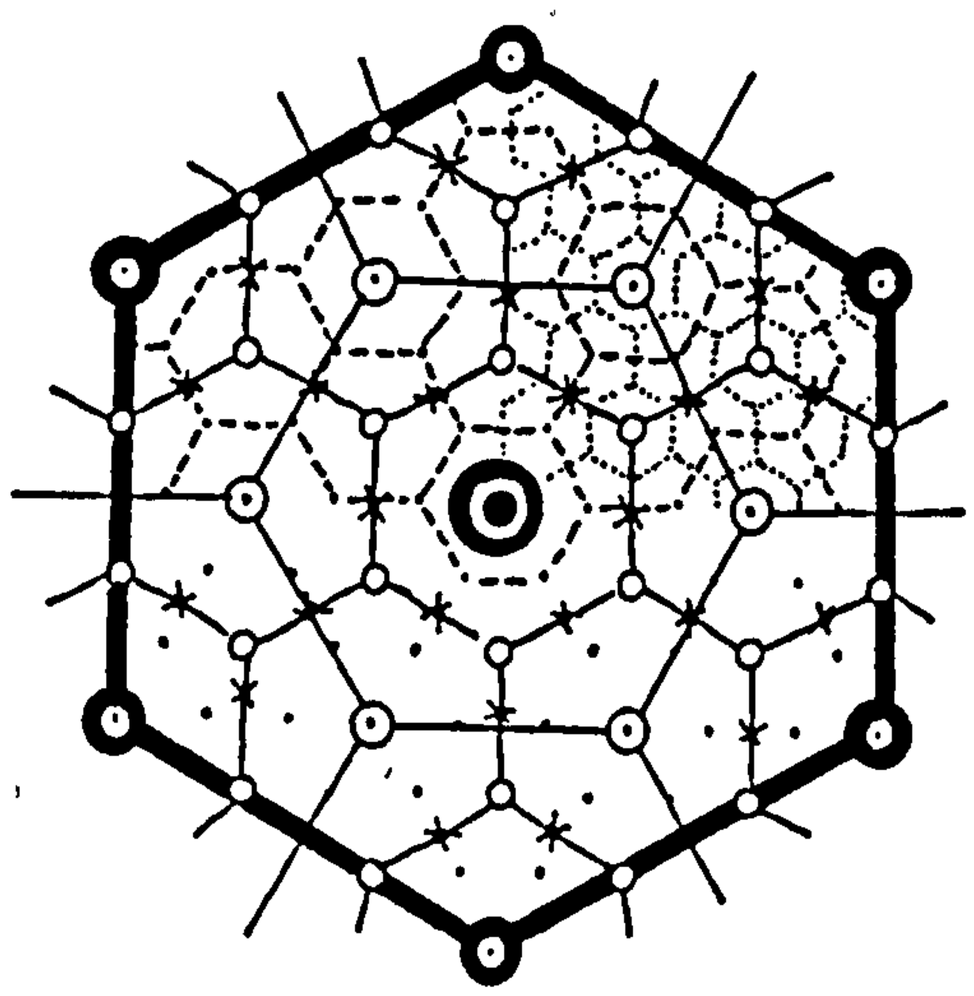
functions sufficient for customers to travel bearable distances (suitable 'ranges') in order to buy a good, as well as for producers who seek to have the minimum 'threshold' to survive or to keep functioning.

1.19 Therefore, both concepts of 'range of goods' and 'threshold population' determine the size of market area of a certain good. The most expensive and luxurious goods (e.g. expensive jewellery) tend to locate in places where they can be exposed to a high population with a sufficient clientele with expensive tastes - although Christaller did not analytically adhere to differences in customers' tastes and preferences. Accordingly, city centres have tended to be the ideal location for such goods. On the other hand, small corner shops - for example - tend to be higher in number and widely spread throughout urban areas, because they require a lesser threshold population to keep functioning. Some fruit shops which have a low range and threshold population may tend to agglomerate in one place, so that their threshold population can be increased as a result of the factor of 'comparison shopping' - i.e. the willingness of customers to go to such places for shopping due to the availability of different qualities and competitive prices.

1.20 Christaller emphasised that goods locate themselves according to their 'ranges' and 'thresholds' through a long period of trial and error. In the case of not gaining enough revenues at certain locations, shops tend to transfer to other locations where the minimum required revenues can be gained. Through this process, shops end up locating at places which optimise their wish to gain enough revenues and their customers are able to reach them easily.

1.21 Figure One summarises Christaller's findings about the structure of places in Southern Germany. According to him, the

Figure One : The Marketing Regions in a System of Central Places ; Based Upon Pragmatic Analysis For Structure of Places in Southern Germany , in 1936



◉ G-Place

⊙ B-Place

⊙ K-Place

○ A-Place

• M-Place

Boundary of the G-Region

Boundary of the B-Region

Boundary of the K-Region

Boundary of the A-Region

Boundary of the M-Region

Source : Baskin C. W. , 1966 , P. 66 ; Translation For Christaller , 1936

market areas at that time and place were structured in hierarchical hexagonally-shaped patterns: hierarchical places in size, rank of service and geographical terms. Recalling King's argument (1984), the significant thing about Christaller's theory is his identification of the hierarchical pattern of central places - rather than the hexagonally-shaped market areas. King continued arguing that the spatial 'hexagons' might not be found in many other areas than Southern Germany at that time - due to several variable factors.

1.22 In conclusion, Christaller succeeded in defining the concepts of 'range' and 'threshold', and in using them in his pragmatic study for Southern Germany. He found that places in Southern Germany (plain agricultural area with homogeneous features and market towns) were structured hierarchically (in both size and geographical terms) with nearly constant distances separating centres of the same order (see Figure One). The reason behind the centrality of goods, as seen by Christaller, was due to the tendency of goods to locate in areas where they can be close enough to customers and where they can earn enough revenues to survive, simultaneously. However, he built his analysis on the 'market town' as the smallest unit in the region. Furthermore, he insisted on the marketing principle as the normal determinents for sizes and distributions of central places: he developed his ideas at places where only free-market forces were regulating locational decisions of goods and services. Nevertheless, he acknowledged the existence of another two principles: traffic routing and administrative partitioning. In the case of a straight road between two older towns, newly emerging towns (usually of smaller order) tend to locate along the sides of such roads (i.e. the traffic routing

principles). When an intentional division for settlements around a big centre is made, the administrative principle can determine the sizes and distribution of such places. (Christaller, translated by Baskin 1966).

1.23 Finally, it seems that the actual mode of the operation of Christaller's three defined principles – marketing, traffic routing and administrative partitioning – is related to the distribution of population and the historical factors behind the development of a concerned area or region. However, the demand factor for a certain good was used intelligently by Losch to approach the findings of Christaller from another angle. To shed light on that, the work of another German scholar should be introduced.

August Losch and the Economics of Location

1.24 Losch's book, The Economics of Location, was translated from German into English in 1954, by Wolfgang Stolper. Stolper introduced Losch's book by saying :

> "Even a glance at The Economics of Location is enough to convince the reader that its author was an extraordinary personality ... He asked significant new questions and he added significantly to the answers given by others to older questions ". (Losch, translated by Stolper 1954, p. vii).

Stolper continued by arguing that what made Losch an extraordinary personality was not only his high level of questioning, analysing and interpreting, but also his appreciation for significant work from scholars from other countries in spite of the war and the pressures he faced from Hitler's regime.

1.25 Christaller (1933) left a fertile area for survey and analysis. Losch (1939) came to approach the analysis of location of goods through applying advanced mathematical procedures and

curve analysis. Richardson, (1969, p.107) stated that:

> "Losch was the first to describe general spatial relations in a set of simple equations". (Smith 1971, p.130).

1.26 Richardson continued by arguing that location was seen as a result of spatial cost differences. When Losch came, he introduced demand and sale potentials as the main factors determining location of functions. However, Richardson may not be quite fair in his judgement because Christaller, six years prior to Losch, emphasised the role of 'threshold' in determining the market area of a certain good as a concept expressing the minimum level of demand which a certain function requires to survive. What Losch had done was to use concepts like theoretical demand, quantity demanded and price curves to analyse market areas of different single goods.

1.27 Christaller approached his studies through examining the structure of urban settlements to which functions were assigned. In contrast, Losch approached his question – How and why do spatial differences occur? – through studying demand for single products. He firstly assumed the following:

i A vast plain, with an equal distribution of raw materials;

ii Self-sufficient farmyards as being regularly dispersed over that plain; and

iii Complete absence of any inequalities, either political or geographical.

Given these conditions, (which were more or less similar to conditions in the areas analysed previously by Christaller) Losch stated his area of research as: How can this starting point lead to spatial differences? (Losch, translated by Stolper, 1954). Therefore, while Christaller developed his ideas pragmatically,

Losch followed another path: he stated his assumption that conditions were not different from those in the area where Christaller made his analysis, and he chose to apply mathematical approaches in order to almost theoretically interpret locational differences of market spaces. However, Losch built his marketing principles on behaviour of demand for a certain product produced and consumed locally.

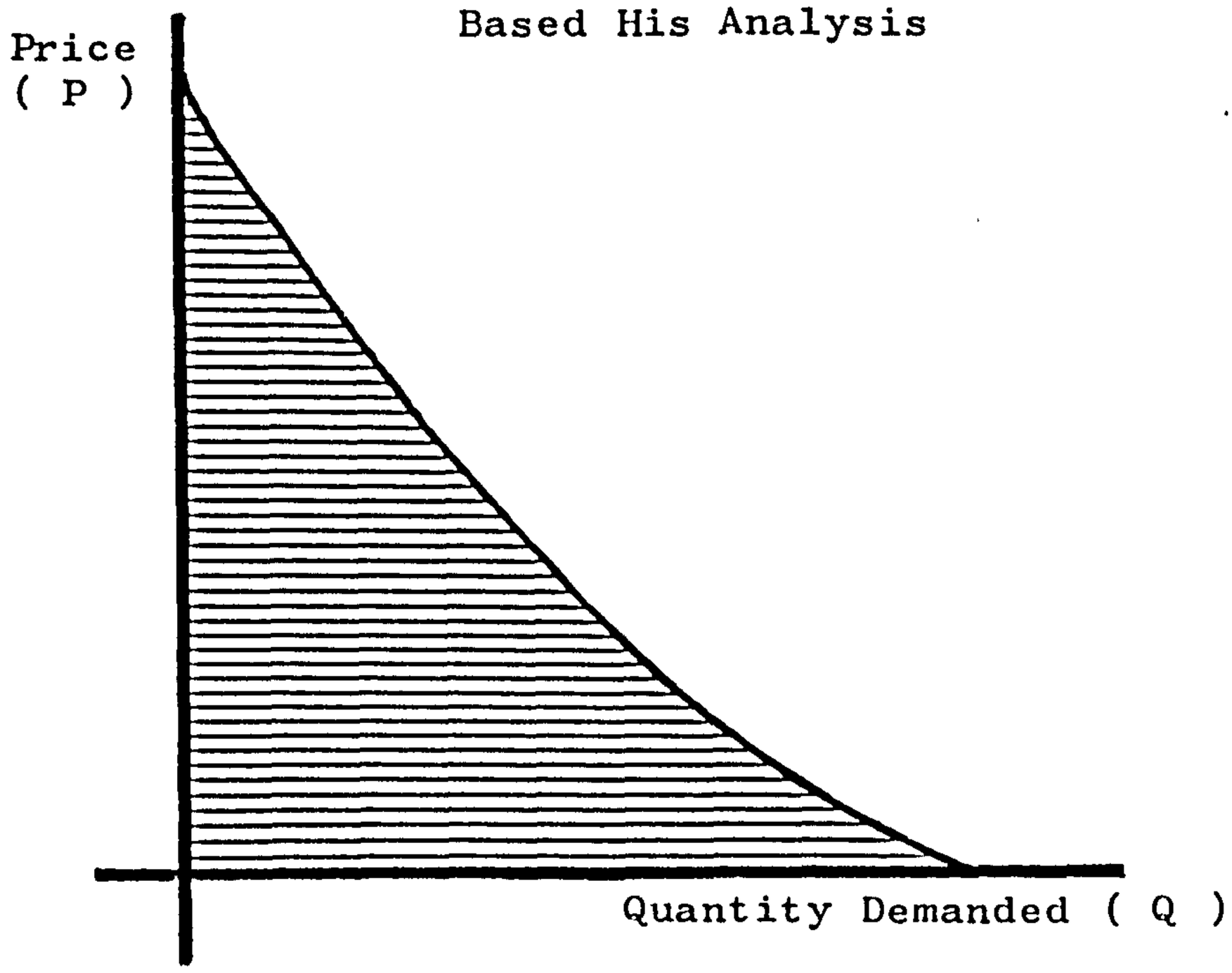
1.28 Figure Two shows how Losch introduced the theoretical relation between quantity demanded and price level. Assuming a constant supply and free-market conditions, as price decreases demand increases (see Figure Two). Referring to Figure Three, quantity demanded increases from Q3 to Q2 then to Q1 as price falls from P3 to P2 then to P1 respectively.

1.29 Considering the cost of transportation, Losch argued that products tend to be more expensive as distance increases from the place of production. At some distance away, households would become unable to afford that product, and demand would become zero.

1.30 Figure Four represents the relation between quantity demanded and location of customers. The point 'P' signifies the production point of a certain good, at which the quantity demanded 'Q' is at a maximum because the cost of transportation of that good is at a minimum. As distance between customers and place of production increases, the quantity demanded decreases due to the increase in the cost of transportation in order to buy from the critical point 'P'. Accordingly, such customers might look for a closer production point.

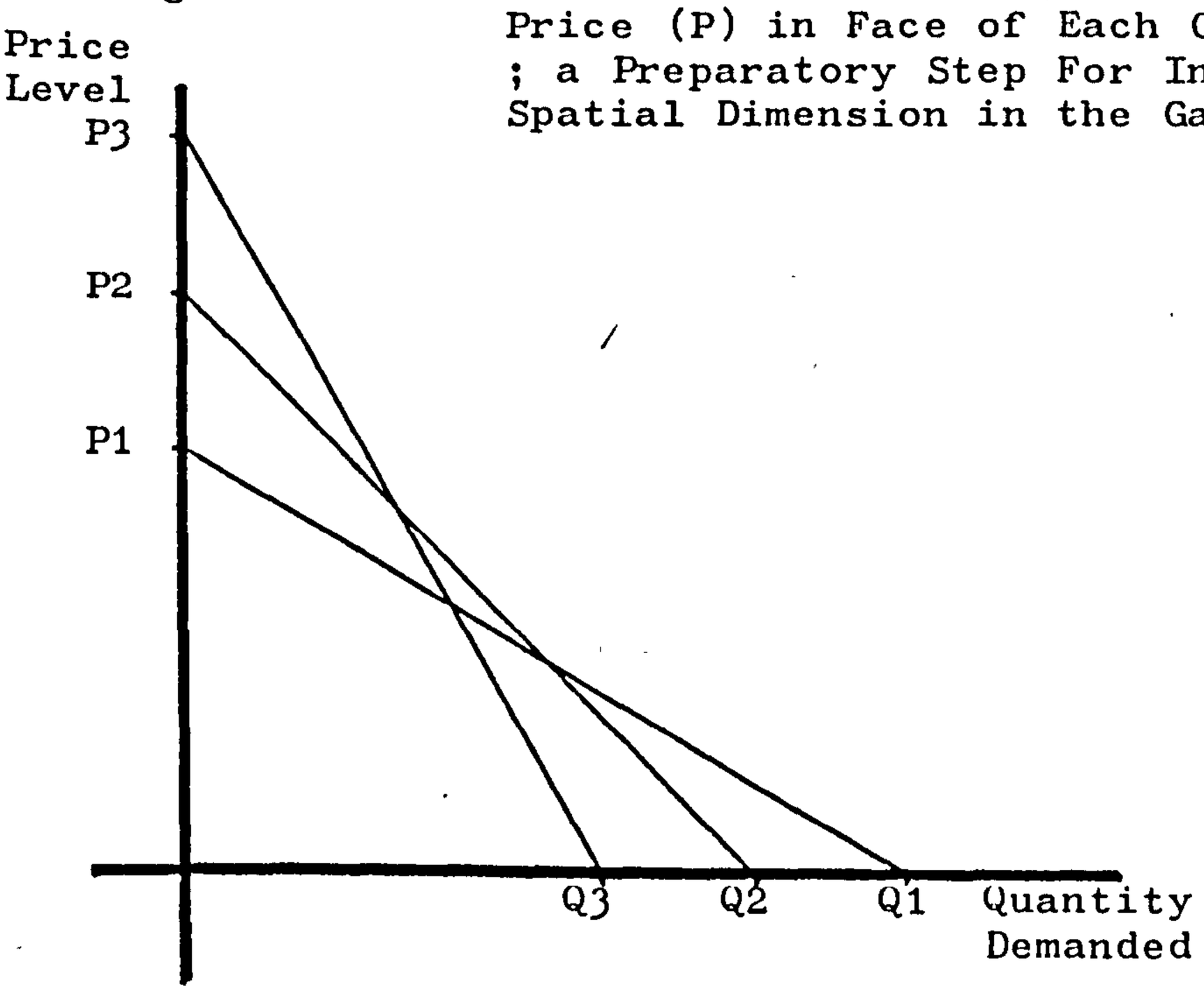
1.31 According to Losch, every function has its demand curve which defines its market area. In Christaller's language, Losch's demand curve defines the good's range which highlights its

Figure Two : Responsive Behavioure of Price (P) and Quantity Demanded (Q) ; The Basic Model Upon Which Losch (1939) Based His Analysis



Source : Simplified From Stolper,1954,P.106 ; Translation For Losch,1939

Figure three : Behaviour of Demand (Q) and Price (P) in Face of Each Others ; a Preparatory Step For Introducing Spatial Dimension in the Game



Source : Simplified From Stolper , 1954 , P. 106 ; Translation For Losch , 1939

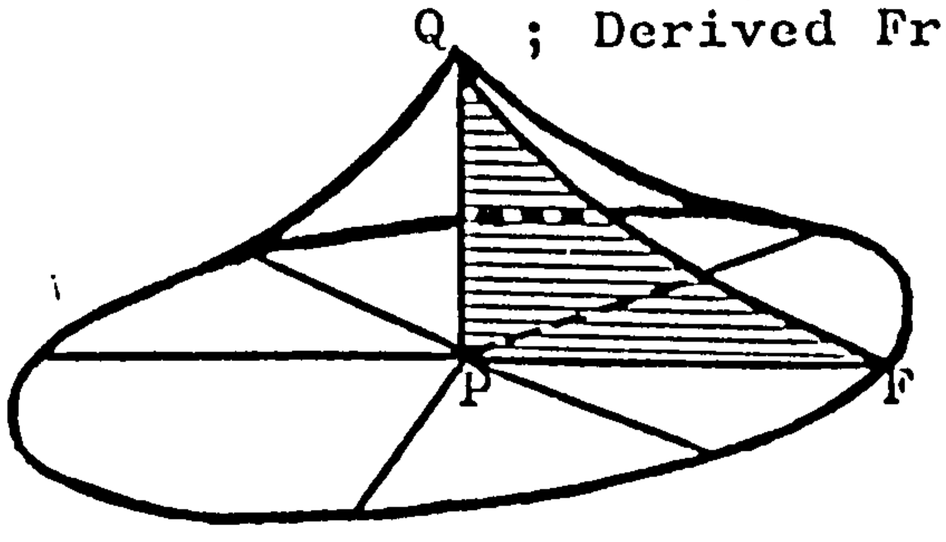
threshold population. However, by rotating the demand curve around the production point of a certain good, a circle indicating its market area can be drawn (Figure Four). Like Christaller, Losch eventually argued that circular market areas would leave unserved places which could not be true. Therefore, he eventually argued that the hexagons are the best representatives for good market areas. However, the demand curve still determines the actual market areas' size.

1.32 By superimposing all the individual hexagons (which represent market areas for all available goods), Losch argued that there would be a metropolis at the centre – where every product is made and a large number of hexagons coincide. Elsewhere, where fewer hexagons coincide, there would be cities, towns and smaller settlements. Therefore, a hierarchical pattern of central places would exist with hierarchical sizes of market areas: such hierarchy developed through a long time of trial and error under purely free-market conditions, as the only regulatory concepts of locational decisions of goods.

1.33 Losch reached the same conclusion as Christaller. They used different techniques but both of them concluded that urban areas exist in a hierarchical form of central places, with hierarchical roles, sizes and importance. However, Losch assumed the absence of political and administrative principles whereas Christaller built his analysis on the marketing principle, but acknowledged the existence of another two principles: traffic routing and administrative partitioning. They both acknowledged that their theories were incomplete and in desperate need of further development. They left the door wide open for researchers to participate in advancing their findings and testing their

applicabilities to other areas.

Figure Four : The Market Area For The Product Produced At The Location 'P' , as Function of Distance Q ; Derived From The Demand Curve



PQ = Quantity Sold At The Production Place 'P'
PF = The Extreme Sale Radious ; At The Point 'F', The Quantity Sold (Demanded) Becomes Zero Due To Unbearable Transportation Costs

Source : After Stopler , 1954 , P. 106 ; Translation For Losch , 1939

PRAGMATIC BASIS

1.34 Christaller was looking for the laws which govern the distribution, sizes and numbers of central places. He analysed the structure of existing urban settlements which had grown naturally. In other words, he analysed the structure of places which were located according to pure free-market conditions. The 'threshold' and 'range' concepts were the only regulatory concepts which controlled locational decisions of goods and functions in the area analysed by Christaller. Losch approached almost the same aim as the one approached by Christaller through analysing demand behaviour of single goods. At this juncture, two points should be

reported:

i The central place concept was initially pioneered as a means for analysing structure of places; and

ii The places analysed by both scholars – Christaller and Losch – had not been subject to any intervention which might have influenced locational decisions of any of their goods. Functions had complete freedom to locate wherever they felt it to be profitable. Futhermore, because the analysed areas were plain agricultural lands, landform obstacles to location of goods were almost non-existant.

1.35 Concerning the first point, the central place concept became a basic element in urban and regional planning and policy in many cases, all over the world. It changed from being a means only for analysing the structure of places which were created by a purely marketing principle, to being a policy means. It would have seemed more logical if the concept had been used to identify the natural hierarchical pattern of places in order to build on it. Richardson (1964) emphasised this point, as will be clarified later.

1.36 Concerning the second point, the location of infrastructure, schools, hospitals and other functions are commonly determined by Governments. The location of such services affects location of shops. Furthermore, location of firms in some cases have been affected by tax incentives and other locational policies (as will be demonstrated in Chapters Two, Three and Five in particular). Therefore, the location of functions and their relationships are not any more purely controlled by 'range' and 'threshold' regulatory concepts. We can not, therefore, assume that we should find a hierarchy of places in today's urban areas. Furthermore, economic and social restructuring casts some doubt on the

continuing effectiveness of the central place concept in analysing the structure of today's urban environments. It may not be appropriate to use a method pioneered for the analyses of the structure of naturally created places in order to analyse the structure of places which are subject to various interventions, affecting the decisions on locating a wide range of functions.

1.37 Neither Christaller nor Losch considered the spatial distribution of places explicitly in terms of the factors of tastes, preferences and income levels. A certain commodity could be located within a highly-populated area in one region and yet not achieve the minimum required threshold, whereas within a different region with different social characteristics the commodity could be viable in a similarly populous area. Hierarchies seem, according to this argument, likely to be differently constructed in regions of different social characteristics. This would particularly be the case if free-market conditions alone are regulating the location of goods. Furthermore, the market area of a certain good may be affected by the topography and density of areas around (as will be demonstrated in Chapter Eight). Therefore, factors like tastes, income levels, and local topography make the identification of a certain good's market area much more difficult than just drawing the circle of Losch's demand curve (Figure Four). Beavon, K.S.O. (1977) aggressively questioned Losch's and Christaller's implied equality of range in all directions. Nevertheless, as mentioned previously, they based their theoretical and pragmatic analysis on conditins in plain agricultural areas, with no topographical constraints to developments and with homogeneous market towns (i.e. with no differences in functions and, probably, income levels and tastes).

1.38 Although with the difficulties outlined above it may be possible to hypothetically identify the market area of a certain good, it is plainly more difficult to define the market area of several artificially concentrated goods: with different ranges and thresholds.

1.39 Accordingly, although Central Place Theory introduced a basic analysis for structure of places created by completely free-market conditions, it seems likely that it has its limitations for contemporary urban systems. Despite that, it influenced regional and urban policy in Europe in the 1960s and 1970s. Its influence on regional policy in developing countries is almost everywhere. The question is: Does it cope with technological advancement? The following section will cast light on this theme.

CHANGE IN FACE OF TECHNOLOGY

1.40 Christaller and Losch formulated their ideas half a century ago. At that time, even in advanced economies, there remained a relatively large agricultural population and urban areas in a high number of countries were predominently built in human scale. Since then, cities have expanded and have become of a car-scale rather than of a human-scale. Distance has become measured in time rather than in metres (e.g. five minutes driving instead of five miles). Car ownership has increased all over the world. Customers have become able to buy goods from shops located far away from where they live, without recourse to mail order. Hypermarkets have tended to locate outside cities at accessible places. Firms were encouraged to locate away from centres due to lack of parking space and residential dispersal. Avoiding congestion, high rents, and maybe lack of space, led to many firms migrating from centres to

out-of-town places where land was more extensive and rents possibly lower. The existence of efficient roads and public transportation lessened Englander's factors of distance from both market and raw materials as the main determinent for location of a factory. Advanced mechanisation lessened the need of firms for labour, and then lessened the effect of availability of concentrated labour in determining the location of a firm. Rapid public transportation made it possible for labourers to travel easily to their work.

1.41 The benefits gained by locating away from central places came to exceed the benefits of 'external economies' in central areas for many firms. Telephone, telex, postal and computer services decreased the need to travel for face-to-face meetings and obtaining orders.

1.42 Having argued all that, the question is: Are todays' urban areas still structured in a hierarchical pattern of central places despite technological and other changes? If not, we have to ask why this concept is still widely applied as a fundamental means in our regional planning and development? In answering these questions one should bear in mind the incentive, tax and other policies applied by many countries in order to direct growth to certain areas.

1.43 In conclusion, many technological advancements appear to have the potential to affect the locational decisions of functions. Locations are no longer controlled only by free-market conditions (i.e. threshold and range of goods), but technology and public policies' interventions are also influencing factors. This implies that empirical evidence of local Saudi natural hierarchical potentials should be found to build on – rather than building on a

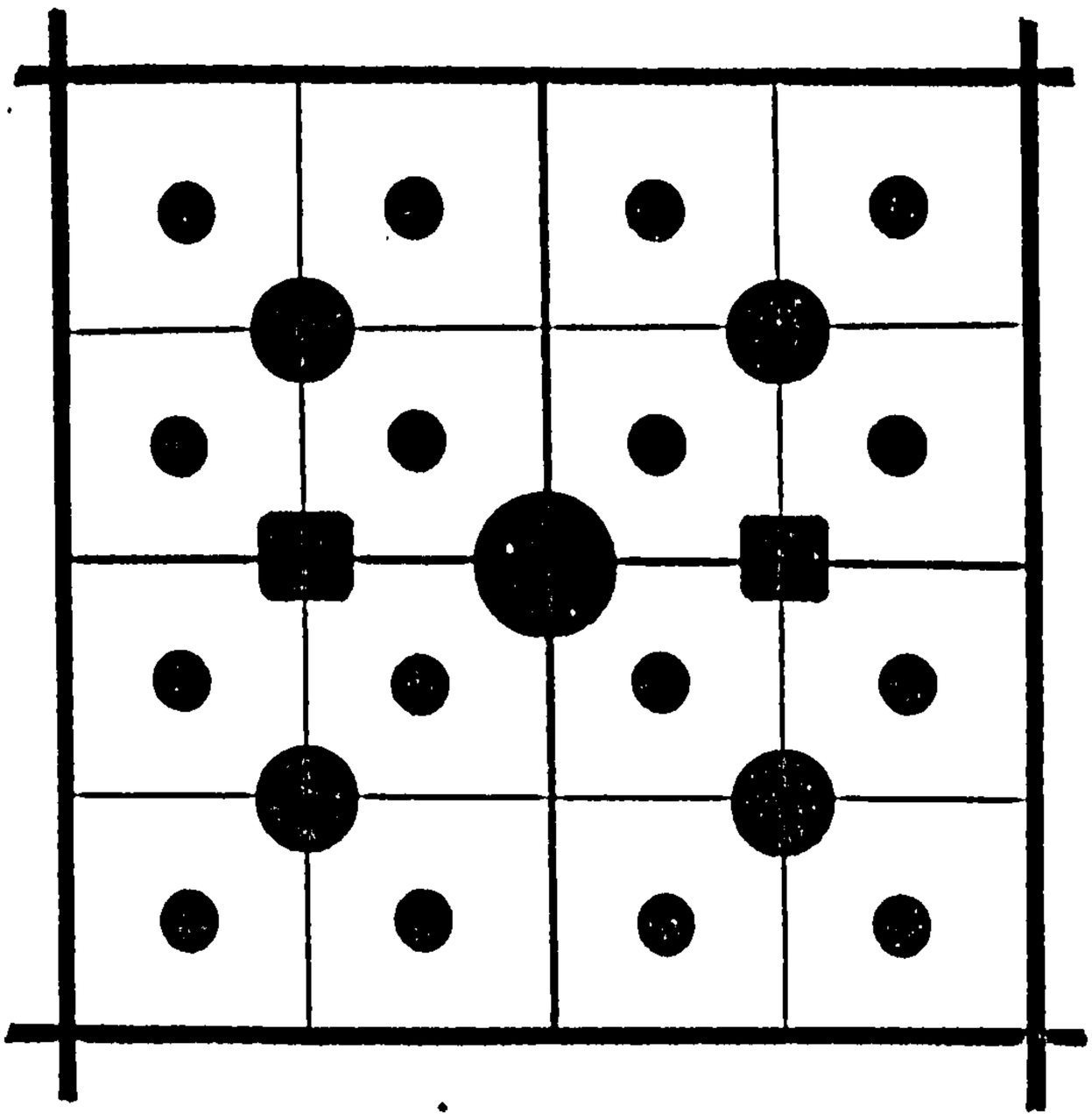
completely artificial hierarchy, deriving from historic evidence from a remote country.

ROLE OF CENTRAL PLACE CONCEPT IN TODAY'S URBAN AND REGIONAL PLANNING AND DEVELOPMENT

1.44 As argued previously, the Central Place concept became gradually applied as a basic artificial regulatory concept for regional planning and allocation of services. The 'neighbourhood planning' approach borrowed a lot from the Central Place philosophy. Many planning standards are used by urban planners to evaluate the adequacy of existing services. Some of these standards are strongly related to the issues of 'threshold' and 'range'. For example, some contemporary standards advise that a primary school should serve something like 600 primary school-age children, with a maximum walking distance of 150-200 metres. The distance and population here represent Christaller's range and threshold concepts respectively. The Jeddah Master Plan (1980) advised on applying the principle of centrality advocated by the neighbourhood concept in order to achieve a more efficient distribution of services (see Figure Five).

1.45 In rural areas, where population is dispersed, it is usually difficult to satisfy the concepts of threshold and range for some services unless there is an efficient transportation system connecting surrounding areas with services. For example, the 600 primary school children may not be located within a maximum distance of 150-200 metres away from a primary school. Nevertheless, the Central Place concept is applied extensively in rural areas in a large number of countries worldwide. Cloke (1983) mentioned the approach of Key-Settlements in Britain, where one

Figure Five : Christaller's Range and Threshold Concepts as Tools in Urban Planning and Service Distribution



Source : Sert Jackson, 1980, Jeddah Master Plan, Report 9, P. 48.

central settlement can be chosen for the provision of services to a group of settlements around it. In such a case, the services are provided according to the 'threshold' regulatory concept, but, ifthere is an absence of efficient transportation connections, the population of the non-Key Settlements are disadvantaged by such a policy of concentration (Cloke 1983). Therefore, the 'range'concept is more difficult to achieve in rural areas than in high density urban areas.

1.46 However, the application of the Central Place principle is believed by many to be the most efficient way of service provision.

King, L.J. (1984, p.72.) argued:

> "a well developed, hierarchical Central Place system is in some sense an efficient arrangement which is likely to have a positive or beneficial effect upon the economic development of the region in question".

1.47 Some believe that resources can be lost through not targeting expenditure towards Central Places with suitable potentials. Johnson (1970, p.137), for example, argued that:

> "The neglect of Central-Places analysis in the planning techniques of under-developed countries is doubly unfortunate: opportunities are lost and resources are devoted to less than optimum uses, perhaps for less" (in King, 1984, p.72).

1.48 The phrase "optimum uses" in the above quotation is probably strongly related to the concepts of range and threshold. In many analyses we find standards for shopping centres which range from the corner shop at the bottom of the hierarchy to the regional and maybe national shopping centre at the top. Moving up such a hierarchy, numbers decrease, sizes increase and measures of range and threshold increase (i.e. market areas increase in size). Furthermore, each higher order shopping centre is located in a more important and larger city. This highlights the attention given to the Central Place philosophy in today's development.

1.49 In conclusion, the Central Place concept is now used not only for analysing structure of places but perhaps even more for initiating policies for planning, development and service provision. It is applied mostly for reasons of implied efficiency. Later in this chapter, however, disadvantages associated with concentration will be highlighted. Prior to that, approaches towards identifying importance of a place will be discussed briefly in the next section.

MEASUREMENT OF CENTRALITY

1.50 Why is it helpful to measure the centrality of a place? As reported above, Johnson stated in the above quotation that because of the neglect of Central Place concept and analysis "opportunities are lost and resources are devoted to less than optimum use ...". He believed that only through centrality could resources be utilised efficiently. But where can we concentrate facilities and services? It is seen by many to be easier and more profitable to concentrate facilities and services at areas of suitable potential for development. Cloke (1979, p.41), for example, said:

> "The early research of Dickinson and Smailes highlighted the importance of centrality measurement to the planner. It was realised that it was easier to build upon a 'natural' settlement hierarchy than to substitute a more artificial order of service provision".

1.51 The "natural settlement hierarchy" mentioned by Cloke is very difficult to measure nowadays. As previously argued, provision of services and location of goods became greatly affected by public policies. In most cases, functions are unable to choose their locations according to a purely free-market mechanism. In other words, public policy has commonly dominated the free-market regulatory concepts - i.e. thresholds and ranges. Therefore, some of today's places of low potential - in terms of accessibility, suitability for future expansion, resources, etc. - may even have more facilities, services, goods and firms than other places with high potential.

1.52 The question is: How do you measure the centrality of a place? Christaller rejected the hypothesis of 'places with equal population represent equal importance'. Initially, he rejected the use of population size as a means for defining importance of a place, but in the end he came to say that population size may be

the best of the deficient measures we have. Prior to that, he argued that a good approach towards identifying the centrality of a place is to compare its services with the types, sizes and numbers of services and institutions which the definition of a central place should have in order to be considered as such. Later, he found this approach a weak one - since there would be no single unit by which the aggregate importance of a place could be measured. He said:

> " ... if one wishes to find the aggregate importance of a central place, one cannot express the sale of a store in money and the importance of a hospital in meals served". (Christaller, translated by Baskin 1966, p. 142).

1.53 He argued also that religious institutions exist in each level of central places. Does the Church have a local or a real central importance? He answered, 'it is a misleading method'. He reached a point at which he announced:

> "The telephone is a kind of common denominator to which all the various factors which make up the importance of a place can be reduced. Thus, the problem of quantifying importance is solved. But in larger towns the intra-urban use of the telephone is stressed, while in smaller places, there are proportionately more long-distance calls per connection". (Christaller translated by Baskin 1966, p. 143)

1.54 However, the use of telephone connections as a means for measuring the degree of centrality of a place has not been accepted by all researchers in this field - simply because this method was not necessarily related to retail functions. It contradicted Christaller's marketing principle upon which his analysis was originally built. Dickinson (1964, p. 58), for example, stated that:

> "The Central Place theory, as formulated by Christaller, has met with a great deal of criticism in Germany, Sweden and elsewhere. This is based partly on the grounds of the inadequacy of the criteria used to determine centrality (as, for example, his preference for telephone

connections rather than retail trade data)".

1.55 Researchers after Christaller, and even those who criticised his pioneering method, however, kept tinkering with his criteria. Dickinson and Smailes (1968), for example, used service indicators for the purpose of selecting Key-Settlements in County Tipperary, in Ireland (Cloke, 1979). This method did not go far from the institutional measures refused by Christaller himself.

1.56 Cloke (1979) mentioned the delineation of hinterland areas. He said that this method was typified by the work of Green (1950), Carruthers (1957) and Johnston (1966) – who used bus service data. Setting aside the details of this method, delineation of hinterland areas is as difficult as the delineation of Losch's demand curves for the purpose of identifying market areas. Hinterland boundaries are not only difficult to define, but also can change over time.

1.57 Which method is the most appropriate for measuring centrality of a place? A survey for potentials for future expansion, resources and accessibility may be the best way of identifying the natural hierarchy of places upon which regional policy can be successfully built. It is worthwhile stressing again that the existing services and institutions in a large number of cases are likely to be located according to incentives, subsidies and/or public controls. In contrast, at the time of Christaller, goods were located according to pure free-market conditions (threshold and range factors). For this important reason, number and sizes of intitutions were representative of the natural centrality of a place at Christaller's time, but the same criteria may be misleading in today's urban structure.

1.58 Therefore, prior to identifying the centrality of places, a deliberate look should be given to the history of the places

concerned. If they were subject to policies affecting location of services and institutions, then a survey is required to identify the 'natural' and 'policy' elements of the system.

1.59 However, another theory stands alongside Central Place theory and the two have sometimes been combined as one. This other theory has probably played an even greater role in regional and national policies in many countries. To shed light on it, growth centre and growth pole concepts will be discussed.

GROWTH CENTRE THEORY

1.60 The term 'growth' stands mainly to signify economic growth as a result of the grouping of firms and their synergic growth. The term 'centre' implies that such firms and enterprises, and maybe also services which cause growth, are grouped in either a central place or a place that will be a centre for growth and development. Therefore, this concept deals with concentrated functions which cause mainly economic related growth. Because it calls for concentration, this can rightly or wrongly hint at a spatial relation with the concept of hierarchy of central places. This issue will be explored later.

1.61 Moseley (1974) stated that one of the drawbacks of the Central Place concept is that it gives little attention to growth and development. According to him, it treats the hierarchy of places as static. However, Cloke (1983) argued that Central Place theory maintains that if a certain central place gets bigger then it will occupy a higher order in the hierarchy, assuming that the remaining centres of the hierarchy have not grown as much. Therefore, the Central Place concept believes in the dynamism of urban areas and of development. Setting aside such disagreement,

many authors have questioned the relation between centrality and growth assumed by the term 'growth centre'. For example, Moseley (1974) questioned which of the two words comprising growth centre is crucial to the concept, or are they both? In other words, he questioned the degree of combination between centrality and growth – claiming that a central place may not be a growth centre, or may not be able to become a growth centre.

1.62 Fox (1966) and Carol (1966) used the term growth centre to mean high level tertiary functions. Cloke (1979) was concerned mainly with economic growth. Allen (1970) and Hermansen (1972) suggested that both functions – economic and services – should persist for a growth centre to be termed as such. In this thesis, the term growth centre will be used to mean concentrated firms, enterprises, services and/or any other functions in a certain place for the purpose of generating economic and/or spatial growth and benefits. Whether such concentration occurs in a previously known central place or not, this has no effect on the definition. How can such a centre fit the hierarchical pattern of places? Such a question can be asked, but first we need to know if our places are hierarchically structured or not. However, if today's places are not built in natural hierarchy of central places, then most of the central places may not have the potentials for functioning as growth centres. This may support Moseley's (1974) argument when he differentiated between centrality and growth, as one may not necessarily lead to the other. However, it is important to stress that the hierarchy assumed by the central place theory has not been based on economic activities but rather on significance and boundaries of market areas.

1.63 However the theory which gave birth to the concept of

'growth centre' is the 'growth pole' theory. Accordingly, the rest of this chapter will be devoted to the growth pole theory: its history, justifications and pragmatic bases. At the end of this chapter, the term growth pole will be suspended - except in the case of quoting from others - and substituted by the term growth centre.

HISTORY AND JUSTIFICATIONS

1.64 Growth pole theory can be traced back to the analysis of Professor Perroux - a French scholar - around 1955. Prior to that time, regional policy in France was encouraging the concentration of development in areas with an above average unemployment rate (Allen 1970). Perroux was interested in analysing the economic structure and the various ways through which concentrated economic functions can have impacts on other areas. The economic behaviour of concentrated developments in France was more complex than could be analysed in its geographical context. Accordingly, Perroux differentiated between three types of economic spaces: economic space as defined by a plan, economic space as a field of forces, and economic space as a homogeneous aggregate (Richardson 1970). Setting aside the specific meanings of each of these economic spaces, Perroux built his analysis on the second type - i.e. economic space as a field of forces. For the purpose of simplifying things, he relaxed the geographical locations and related all his studies to what he called 'abstract' space.

1.65 According to Hermansen (in Kuklinski, 1972), the hypothesis set by Perroux for study and analysis was as follows:

> "development does not appear everywhere and all at once: it appears in points of development poles with variable intensities; it spreads along diverse channels and has

varying terminal effects for the whole of the economy".

Therefore, the growth pole theory illustrates two opposing forces governing movements of economic development. The first force is the ability of concentrated enterprises and firms to attract factors of production to the same area of concentration. This mechanism was called by Hirschmann (1958) the force of polarisation. The same force was called by Myrdal (1957) the 'backwash' force. The term 'backwash' implies the movement of population and firms – and maybe other factors of production – from surroundings to areas of concentrations; this issue will be expanded later in this chapter.

1.66 The second force attributed to growth poles is their ability to trickle down or to spread benefits to their peripheral areas, through the factors of production (labour, raw materials), as channels. For example, people commuting to work in a growth pole may spend some of their income in the periphery where they live. This can stimulate economic development in the periphery through the mechanism of economic multipliers. Also, surrounding rural areas which have tourism values may benefit from tourists who work in urban centres and spend weekends and longer vacations in such rural areas. The same can be said when industries in centres rely on the raw materials of the peripheries.

1.67 Despite being built on the abstract space concept which has little to do with actual geographical locations and constraints, and despite being pioneered for the purpose of analysing the economic impacts of a concentrated group of industries, the concept of growth poles came to play a fundamental role in national and regional policies in Europe in the 1950s, 1960s and 1970s. Many developing countries borrowed the concepts of this theory and

adopted them. Why has this theory become a basic part of policy in many countries? This was probably due to many political and theoretical justifications and mechanisms which represented this concept as a proper cure for regional disparities and economic backwardness. Most of such justifications are attributed to the Central Place concept as well, and will now be discussed.

Concentration and Cost-Effectiveness

1.68 The notion of economies of scale suggests that building a big school or any other single service may be cheaper than building many schools or other services, in terms of both initial and running costs.

> " ... the building of one big school or high-capacity sewerage scheme is economically more acceptable than building several smaller schools or sewerage systems". (Cloke 1979, p.31).

1.69 Cloke (1979, p.31) continued emphasising the ability of big services to attract more customers, provided that they are located in accessible areas within easy reach (i.e. bearable ranges), saying:

> "several small retail outlets with scattered clientele are less viable than one or two larger shops with all their customers within easy reach".

1.70 Cloke built this argument on the results of the North Walsham Area Study (Norfolk County Council, 1976), which undertook to test the hypothesis that 'concentration of new housing development around existing centres provides the greatest overall benefit at the least cost to the community'. The findings proved the hypothesis correct to a great extent, especially from initial and maintenance cost view points. (Cloke 1979, p.31).

1.71 Concentration of services and other functions may benefit

from common sewerage, transportation, parking, water and other facilities. In the case of dispersion, each service may exhaust facilities with low capacities in different areas. Also, it may be easier and cheaper to maintain such common services than to maintain several dispersed facilities.

1.72 The growth pole theory stresses the effectiveness of such concentrations (although addressing concentration of industrial premises and services) in terms of reducing the cost of providing and maintaining infrastructure and other facilities. Richardson (1975 p.31) wrote:

> "one interpretation of growth pole strategies is to concentrate infrastructure and other resources ...".

1.73 However, two questions lend themselves to discussion: first; is concentration possible in all cases? second; is concentration an advantageous approach in all cases? These questions will be answered later, and in the next sections the other justifications attributed to growth poles will be discussed.

Economics of Agglomeration

1.74 The growth pole theory emphasises the role of the pole's 'propulsive' firms in leading and stimulating growth in functionally-linked firms, and even in other areas through the mechanism of 'external economies'. (Darwent, in Friedmann 1975). It may be worthwhile to cast some light on some key words mentioned by this argument, namely: 'propulsive', 'functional linkages' and 'external economies'.

1.75 The most rapidly expanding industry with the highest growth rate and the strongest functional relationship with almost all firms around, was termed by Perroux as the pole's propulsive industry. Its growth was believed to exert growth impacts on other

firms with functional relations with it.

1.76 The 'functionally linked' firms are those which may be processing the same products, or related products, sharing the same expertise, materials, advice and/or guidance. The question is: How does the propulsive firm stimulate growth of linked firms?

According to Darwent (in Friedmann and Alonso, 1975), Scitovsky (1956) attributes that to our third concept - external economies. Bearing in mind that industry 'A' is Perroux's propulsive industry, Scitovsky (1979, p.149) wrote:

> "Expansion in industry 'A' may also give rise to profits: (a) in an industry which produces a factor in industry 'A', (b) in an industry whose product is complementary in use to the product of industry 'A', (c) in an industry whose product is a substitute for a factor used in industry 'A', (d) in an industry whose product is consumed by persons whose incomes are raised by the expansion of industry 'A'". (Darwent, in Friedmann and Alonso (ed), 1975, p.541).

1.77 Therefore, the growth of a propulsive industry may lead to growth of all firms functionally linked to it. In case of growth, industries may increase the incomes of their workers. Economists believe that as income increases, propensity to consume increases as well. Therefore, if industrial outputs and individuals' expenditure increases then growth in even unrelated economic areas could take place. The growth pole theory believes that growth of a poles' propulsive industry can be considered as the first spark for growth cycle. Mechanisms of growth impacts are called 'external economies'.

1.78 However, besides the external economies, agglommeration also produces:

> "internal economies of scale occurring from expansion of output within the new site, and transfer economies due to

linkage with, and proximity to, buyers and suppliers". (Cloke 1979, p.33).

Thomas (in Kuklinski, 1972) argued that these three types of economy are all needed in order to maintain the self-sustaining growth of a growth pole, so that it can effectively spread benefits to its periphery. This argument casts light on the spread mechanism attributed to growth poles.

The Mechanisms of Polarisation and Spread of Benefits

1.79 The theory puts great emphasis on the ability of concentrated firms and industries to attract more functionally related industries and to spread benefits to their periphery. A newly establishing or a relocating firm would select its location in order to be of proximity to other firms which may process the same materials, or complementary ones. As numbers of concentrated industries increase, their polarisation (or attraction) ability increases.

1.80 Pole industries are able to spread benefits to their periphery, according to the theory, provided that functional linkages exist between the pole and their surrounding factors of production (e.g. labour and raw materials): as channels through which benefits may be spread. As highlighted previously, workers commuting to work in pole industries may spend some of their earned money in the periphery where they live. The pragmatic side of these two mechanisms (i.e. polarisation and trickling down) will be examined later.

1.81 However, it is worthwhile to emphasise that these two mechanisms were credited for suggesting the growth pole concept as a proper solution for depressed and backward areas. Consequently, this concept became fundamental in regional and national development and planning policies throughout the world - especially

in Europe. These two mechanisms represented the concept of a growth pole as stimulus for growth and for economic expansion. In the case of success in rural areas, massive depopulation could be trimmed. This is the fourth theoretical justification attributed to the growth pole concept.

Trimming Rural Depopulation

1,82 Many authors argue that the main reason for migration, in ordinary circumstances, is probably the search for jobs. The rural push factors (i.e. lack of jobs, services, etc.) and the urban pull factors (i.e. the availability of jobs, services, etc.) govern the volumes of rural-urban migration, especially in developing countries. Cloke (1979, p.36) wrote:

> "House (1965) and Hannan (1969) emphasise a lack of employment opportunity is the most important reason for migration".

1.83 In the case of providing for concentrated industries in rural areas, consequent growth could be exerted through the mechanisms of polarisation and trickling down. Thus, job opportunities can – at least in theory –provide for better job opportunities and living conditions in rural areas. Therefore, migratiion to urban areas could be minimised.

1.84 Although the growth pole philosophy believes in the impacts of concentrated industries on rural areas and depopulation, many difficulties preclude such theoretical success. However, the pragmatic side of all justifications attributed to the concept of growth pole will be discussed in the next section.

PRAGMATIC BASIS AND EVALUATIONS

1.85 Deviation of the growth pole concept from geographical

locations will be discussed later. In this section, attention will be given to examining the above mentioned justifications attributed to the growth pole concept. In order to do so, four questions are suggested as follows:

i Is concentration possible in all cases? If yes, what are the negative impacts of extreme concentrations?;

ii Are the 'polarisation' and 'spread' mechanisms real ones?;

iii Is the growth pole concept effective in overcoming rural economic problems and in stemming rural depopulation?; and

iv Do firms actally prefer to agglommerate in central places?

Answering these questions will cast light upon some of the disadvantages of the growth pole concept, despite its popularity.

1.86 With reference to Question One, a few points can be listed as follows:

i Extreme concentrations would probably be efficient and implementable only if a new settlement pattern is created from scratch.

> " ... present settlements represent large investments, the value of which may only be realised by their continued use". (Cloke 1979, p.32).

In most cases, unavailability of suitable land at accessible places forms a constraint to concentration. In the case of multi-ownership, it may be costly and/or illegitimate to assemble lands at accessible places. Furthermore it may be hard to find available land with existing efficient infrastructure in existing settlements. Therefore, land availablity can be a factor working against the concentration of industries and services advocated by the growth pole theory;

ii Borrowing his previously quoted statement, Cloke (1979,

p. 32) wrote:

" ... in any given situation a concentration of service provision will give greater economic viability than a dispersal".

The question is: Does such economic viability of concentration stressed by Cloke imply social viability and welfare as well? Previously we reported how the study of the North Walsham area proved the viability of concentrated housing, even from a social perspective. However, Cloke (1983) himself reported that most of the British non-Key Settlements are disadvantaged by the policy of extreme concentrations in Key-Settlements. Therefore, concentration in rural areas could be economically viable but this might not necessarily mean social viability. People tend to be more dispersed in rural areas and, unless there were efficient transportation connections, they would not benefit from such concentrations. In urban areas, concentration may be socially and economically viable — at least in two cases: First; if the range (i.e. travelling or walking distance) to concentrated services is acceptable; and Second; if there are efficient transportation services (e.g. roads, parking, public transport, etc.) linking residential areas, or areas of customers, with the areas of concentrations.

Therefore, economic viability of concentration may be at the expense of social welfare, especially in rural areas;

iii In an age of high car-ownership, concentration of goods, services and, possibly, industries, generates a high volume of traffic. This can cause congestion, pollution, noise, conflict with pedestrians and other problems. In countries which have witnessed a leap-frog development (i.e. rapid

development), concentration policies could lead to severe traffic problems in cities - probably due to lack of parking, public transport services and perhaps lack of efficient roads. Borrowing from experience, concentrated services in the centre of the Abha City - Saudi Arabia - lead to high volumes of cars travelling from all areas of the city to the multi-purpose centre. This caused severe traffic congestion. Another example can be seen in Western city centres such as Glasgow in Scotland, where congestion is an obvious problem despite the availability of underground trains, buses, park-and-ride arrangements and other public transport services. The concentrated banks, offices, large stores and other traffic generators are blamed for such congestion.

Therefore, concentration may not be preferable from a traffic point of view. In cases where public transport, efficient roads and adequate parking are not available, concentration would have more negative impact on cities;

iv As argued above, concentrated services and/or firms may share some infrastructure - rather than either building others or exhausting facilities in other areas. However, if the shared systems are damaged, all concentrated services would suffer. Therefore, there are always trade-offs between the advantages and disadvantages of concentration;

v Despite the difficulties discussed previously, it may be possible to determine threshold and range for single goods. The question is: What is the common threshold and range of several concentrated services? Is there a common market area for all concentrated goods and services? Because each

function has its own market area – as discussed by Christaller and Losch – the gain and economic viability of one function may be at the expense of another. Therefore, concentration may not be economically viable for all concentrated functions at once; and

vi Setting aside all drawbacks, concentration may be more viable in urban areas – where threshold and range can be better satisfied. In rural areas, where population may be of low density or highly dispersed, concentration may not be viable unless accompanied by efficient and cheap transportation facilities.

1.87 The second question is related to the practicality of the growth pole concept: Are the polarisation and spread mechanisms real ones? In theory, concentrated firms and/or goods polarise newly created or relocating functions in order to obtain benefit from external economies. The concentrated functions spread benefits to the periphery, according to the theory.

1.88 In practice, the polarisation mechanism is more in evidence than the spread one. MacCrone (1969), Allen (1970), Richardson (1975), Kim (in Lo 1978), Mathur (in Lo 1978) and Mabogunje (in Kuklinski 1978) studied thoroughly the application and performance of growth pole policy in Britain, France, Spain, Korea, India and Nigeria, respectively. One of their common findings was that polarisation mechanism of concentrated firms and industries was dependant on the generosity of subsidies and incentives offered for firms at the areas of concentration. The Organisation for Economic Co-operation and Development (OECD, 1979) sustains this argument strongly. However, the above mentioned studies found no clear evidence of the ability of concentrated firms and industries to

spread development and benefits to their periphery. For example, the study of Korea found that most of the Korean industrial estates have remained surrounded by rundown urban areas. Therefore, growth pole policy may not be suitable for depressed areas: this will be further discussed in Chapter Three, when addressing the question; Is growth centre policy successful?

1.89 Question Three aims at casting light on the effectiveness of the growth pole concept in solving the problems of rural areas and in stemming rural depopulation. Cloke (1979) argued that the rural Key-Settlements in Britain are smaller than allows them to polarise industries. They lack factors of production and viable demand for outputs. He also argued that industries in Key-Settlements are mainly branches with their headquarters in larger urban centres. Therefore, benefits may be mostly spread up the urban hierarchy rather than centrifugally.

1.90 Accepting these arguments, the growth pole concept may be only capable of making a small contributon to solving rural problems. If rural areas are not able to polarise industries and provide jobs, then rural depopulation is more likely to continue. Therefore, growth pole policy may be more successful in urban areas where factors of production may be more available.

1.91 Question Four attempts to cast light on the willingness of firms to agglomerate in central places. As argued previously, some firms may prefer not to locate in central areas where land is scarce. Congestion may be a problem, rents may be high and infrastructure services may be costly and/or inadequate. They may prefer locating in outlying areas where land may be more extensive and cheaper. Availability of efficient roads, public transport, telephone, telex and other communication means have decreased the

role of physical distance in governing functions locations. Benefits gained from locating away from centres may exceed net benefits gained from locating in centres (e.g. external economies). This questions the practicality of concentration issues advocated by the growth pole theory.

1.92 To conclude, some theoretical justifications attributed to the growth pole concept are probably not practical, and some others are capable only of either a weak contribution to growth or of negative impacts on environment and urban development. Economic viability of concentration may be at the expense of its social viability. Polarisation ability of concentrated industries is, as found by many studies, commonly a function of incentive policies rather than of the benefits from the pole's external economies and agglomeration economies. Ability of concentrated industries to spread benefits to surroundings is not clearly proved, and this casts doubt on the effectiveness of such a policy in depressed areas: reasonings will be explored in Chapter Three. Furthermore, improvements in technology, traffic systems and roads made many firms prefer to locate away from centres – in areas where land may be more extensive and rents may be lower.

1.93 However, these drawbacks of the 'growth pole' concept can be attributed to its origin as a non-spatial theory. Some believe that 'growth pole' concept relies heavily on the concept of 'central places', as far as spatial application is concerned. However, despite the agreement between the two concepts in theory, there are several disagreements between them in practice. This issue will be discussed next.

AGREEMENT IN THEORY AND DISAGREEMENT IN PRACTICE

1.94 The theories of growth poles and central places were originally initiated as means for the analysis of economic and settlement structures across space, respectively. Both have been used gradually as means for formulating urban, regional and even national development policies in a number of cases. The two theories share many theoretical justifications. They both call for concentration of facilities and other functions in accessible places, giving rise to many economic advantages. They both agree on the positive economic impacts of concentrations.

1.95 Christaller built the essence of the central place theory on the regulatory concepts of the range (i.e. walking distance) and threshold (i.e. number of customers within spatially defined market areas). In other words, the central place philosophy was derived from spatial and locational studies. On the other hand, Perroux built his growth pole's analysis on an abstract space - space as a field of forces, which has no relation to geographical areas.

1.96 Central place theory examined pragmatically how and why central places tend to be formed in a hierarchy. As argued above, growth pole theory discussed theoretically how economic benefits can be polarised and spread to a periphery, but without a clear reference to geographical locations. Moseley (1974, p.6) wrote:

> " ... growth-pole theory has little direct relevance to the geographical pattern of development, ... "

Writing in 1975, Richardson stated that:

> "The theorists have never succeeded in satisfactorily linking the Perrouxian functional pole and the geographical pole together". (Richardson, 1979, p.30)

1.97 Another reference to analytical difficulties in implementation from Hermansen (according to Kuklinski 1972, p.69):

> "It is necessary to supplement Boudeville's theory of locational poles of development with Christaller-Losch models ..."

How can Hermansen's proposal be implemented? Unlike central place theory, the growth pole concept does not identify specific locational regulatory thresholds and ranges. It does not dictate where the pole's propulsive industry should be located.

1.98 *To conclude, despite the apparent similarity between the concepts of growth pole and central place, they do not agree in practical terms. Because of the strong relation between the growth pole concept and Perroux's 'abstract space' – which has little to do with geographical space, the terminology of 'growth pole' will not be used any more in this thesis – except in two cases: first; in the case of quoting from others, and second; in the case of studying the application and performance of policy in Spain because the concentrated industries are called 'poles' over there. In all other cases, the terminology 'growth pole' will be substituted by the terminology 'growth centre', taken to mean geographically concentrated industries and/or other functions in any place with the intention of exerting beneficial impacts on the surrounding areas.*

1.99 In Chapter Two, we will proceed to study the performance of growth centre policies in practice, so that issues can be extracted for the study of the Saudi Arabian case.

CHAPTER TWO: APPLICATION AND PERFORMANCE OF SIMILAR POLICIES IN SOME DEVELOPED AND OTHER COUNTRIES

2.01 *This chapter aims at studying the application and performance of growth centre and central place policies in some developed countries. This study is deemed capable of illuminating issues for the future of policy in Saudi Arabia. The question is: Which experiences should we study in particular, and why?*

2.02 *Three experiences have been chosen for study. The first is the Norwegian experience, which is chosen for the following reasons:*

i *Norway is an oil country. Although its economy is not primarily dependant on oil, oil revenues and industries influenced the structure of the Norwegian economy. In this respect, there are some similarities - albeit few - with economic conditions in Saudi Arabia; and*

ii *Norway applied the policy of decentralised concentrations to assist rural areas in the first place. The type and aim of policy is similar in some respects to that attempted in Saudi Arabia.*

2.03 *The second is the experience of the policy in Britain. This decision is taken for the following reasons:*

i *Britain has experienced regional policy since the early 1930s. This comparitively long experience is deemed potentially capable of illuminating a large number of issues which may help in speculating about the potential viability of the proposed regional policy in Saudi Arabia; and*

ii *Reading about Britain enables the study of the application and performance of similar policies in regional (Growth Area policy), urban (Enterprise Zones) and rural (Key Settlements) scales: this would broaden our chances in terms of extracting*

study issues for the future policy in Saudi Arabia.

2.04 *The third experience to be studied is Spain. This selection is made for two reasons:*

1 *The Spanish industrial poles suffered in their early times from the existence of social conservatism against immediate effective participation in industrial activities. This is likely to be the case in rural Saudi Arabia, for which help the Saudi regional policy is proposed; and*

11 *The Spanish poles are national policies which had some negative impacts on rural areas in Spain, which missed their labour force and hence their roles as agricultural crops' producers. This trade-off between national and social interests is a particularly interesting one which should be studied in later parts of this thesis.*

Having justified the decision to study similar policies in Norway, Britain and Spain in particular, the next three sections will consequently study these experiences. Consequently, to widen the range of issue selection, the fourth and fifth sections will study experience of such policies in some justifiably identified developing and other countries.

APPLICATION AND PERFORMANCE OF POLICY IN NORWAY

NATIONAL PERSPECTIVE

2.05 According to the OECD (i.e. Organisation for Economic Co-operation and Development - 1976), the total area of Norway is around 324,000 square kilometres, of which 308,000 is land area. About 72% of the land is made up of mountains, 25% is forest and only 3% is cultivated.

2.06 In early 1975, Norway was populated by around four million

inhabitants. However the average annual growth rate of population in Norway was 0.78% in the 1960s but it gradually declined to 0.62% in 1974, primarily because of decreasing birth rate (OECD 1976).

2.07 In terms of the economy of Norway, the OECD (1976, p.76) reported that:

> "Over the last thirty years the compound annual growth rates in GDP have on average been 4.5-5%. Between 1961 and 1971 GDP at constant prices increased by 57% and over the period 1971-74 by 13.2%. The level of unemployment has been low, ranging around 1% over the last twenty years and averaging 0.7% in 1974".

2.08 The astonishing fact is that the base upon which the economy of Norway was heavily built during the same periods indicated by the above quotation was mainly the "natural resources (fish, timber, ores and water power)". (OECD 1976, p.76). However, the discovery of oil in 1971 helped the Norwegian national economy to improve even more and the unemployment level to stay low. To demonstrate some of these arguments, Table One is provided to represent the quantity of produced oil in Norway as well as to offer a simultaneous comparison between unemployment levels in Norway and in the rest of the OECD countries collectively.

2.09 It is vividly demonstrated in Table One that unemployment in Norway has grown at a significantly slower rate than in the other European OECD countries collectively. It peaked in Norway in 1983 but it slowed down considerably in 1984. Besides the other abundant natural resources, Table One shows a considerable increase in Oil and Gas production in Norway. This must have helped in keeping the unemployment rate comparatively low in Norway.

2.10 Oil discovery created further consequences for general economic and employment conditions in Norway. The OECD (1976, p.78) argued that:

> "The discovery and exploitation of oil and natural

gas in the Norwegian Continental shelf has added a new component to structural change, not only increasing GDP but to some extent shifting labour and capital towards this production sector and related industries based on, or supplying it"

Table One: Norwegian Production of Oil and Gas, and a Comparison with Unemployment in Other European OECD countries

		Unemployment (% of labour force)	
Years	Norwegian Oil and Gas Production (in million tons)	Norway	European OECD Countries
1971	0.3	0.8	3.5
1972	1.6	1.7	3.7
1973	1.6	1.5	3.5
1974	1.7	1.5	3.8
1975	8.7	2.3	4.9
1976	13.6	1.8	5.5
1977	16.7	1.5	5.6
1978	31.9	1.8	6.0
1979	40.4	1.9	6.2
1980	50.5	1.7	6.8
1981	49.7	2.0	8.5
1982	50.7	2.6	9.1
1983	56.3	3.3	10.2
1984	62.5	3.0	10.9

Source: 1. Oil and Gas figures: Galenson (1986, p.7), from Central Bureau of Statistics of Norway (1985, p.173)
2. Unemployment figures: Galenson (1986, p.18), from OECD, Historical Statistics, 1960-1981; Main Economic Indicators, May 1985.

2.11 The impact of such a shift of labour and capital towards oil related industries on the non-oil manufacturing industries in Norway will be highlighted later in this section. The word 'shift' implies that sectors other than oil have been employing labour and capital in Norway even before the exploitation of oil. Galenson (1986) mentions that Norway is not the only country to have attained sudden affluence through the discovery of oil, but it was one of the few already wealthy when the find was made. Nevertheless, Galensen (1986, p.8) also wrote that

> "Norway is no Saudi Arabia - its proven reserves are only 10% as large as the Saudi's".

Whereas the exploitation of oil gave birth to the economy of Saudi Arabia, Norway had its manufacturing, agricultural and other sectors operating effectively prior to the exploitation of oil. Therefore, despite the above mentioned sectoral shifts in capital and labour in favour of the oil industries, it seems that the Norwegian non-oil sectors are probably effectively participating in the overall GDP, better than in countries where economy may be solely dependant on oil.

REGIONAL PERSPECTIVE

2.12 Norway can be divided into five regions, namely: the East, West, South, Middle and the North. Table Two gives a general idea about the percentage share of each region in total population in Norway. Although out-of-date, it gives an idea about regional disparities in Norway – at least in terms of population distribution.

2.13 As demonstrated in Table Two, around one half of the population of Norway is in the East, with 29% of the total land area. One quarter of the population is in the West, with 18% of the total land area. Conversely, the Middle region has 9% of the total population and nearly 13% of area, while the Northern region has nearly 12% of population and 35% of total area. Furthermore, OECD (1976) indicates that the population of Norway is mostly concentrated in the cities of Oslo (in the Eastern region), Bergen and Stravanger (in the Western region) and in other non-specified cities in the other three regions.

2.14 Therefore, the population of Norway is not only concentrated in a few regions but also mainly in large cities within

Table Two: Share of Regions in the Norwegian Population (1975)

Regions	Land Area (percentage)	Population 1975 (percentage)
East	29.1	48.8
South	5.0	5.4
West	18.2	25.1
Middle	12.7	9.1
North	35.0	11.6
Total%	100.0	100.0
Total Norway in Absolute figures	308.0 sq.Km	4.0 million

Source: OECD (1976, p.79).

such regions. A quick glance at Table Two reveals that the share of each region in the total population of Norway may not correctly indicate its share in the total land area which it occupies.

2.15 To some extent, the pattern of settlements in each Norwegian region is controlled by its topography. This partly explains the opposing pictures reflected by the share of each region in total population and in total area - as represented by Table Two. To elaborate on this, the largest region in terms of area - the Northern - is the third smallest region in terms of population size. It consists of small widespread communities due to the hilly topography of the region which dictates the distribution of settlements.

2.16 However, topography seems to have been merely a single factor controlling population distribution throughout Norway. According to OECD (1976), the Eastern region maintained a steady growth rate of population - 5000 persons per annum between 1961 and 1971. During the same period, it witnessed an annual net-inflow averaging 685 per annum. A net-outflow occured in the other three regions, at an annual average of 3300 in the North, 1300 in the West and 550 in the Middle. Obviously, the population gain of the

Eastern region was at the expense of the other three, and was in context of the migration from rural areas to the developed Eastern region in general and to the city of Oslo in particular. In other words, this could be seen as a result of the apparently active washback effect of the urban areas of Norway.

> "In general, the bigger urban centres and the central regions have gained at the expense of the remote regions. The proportions of population living within "urban units" of 10,000 inhabitants or more (in 1960) increased from 61.2% in 1950 to 67% in 1972. In the most urbanised region, the East, the rise was from 77.6% to 81%. In the least urbanised, the North, from 21.9% to 31.1%" (OECD 1976, p.80).

2.17 Therefore, the gain of the 'East' in terms of population was a significant one. Two reasons were, according to the OECD 1976, behind that inter-regional migration in Norway - with maximum out-flow from the West and maximum inflow to the East:

i The advancement in technology and mechanisation led to primary sectors being of a capital intensive nature; and

ii The growth in service sectors in urban areas.

It was an inevitable result that people would migrate to cities where better job opportunities (particularly in service sectors) were available. The maximum population in-flow to the Eastern region can be justified by its comparitively high share in total tertiary activities in Norway. Table Three provides support for this argument.

2.18 Although the data provided in Tables Two and Three are out-of-date they give a clear idea about the history of regional problems and disparities in Norway - at least in terms of share of regions in total population. As argued above, the inter-regional movement of population occurred in response to availability of jobs - especially in the service sector. However, according to OECD

Table Three: Employment Structure by Region and for the Whole of Norway – 1970.

	Mining, Agriculture, Forestry, Fishing and Whaling and (percentages)	Manufacturing, Construction, Electricity Water (percentages)	Tertiary Activities (percentages)
East	7.5	39.1	53.5
South	9.9	42.1	48.0
West	13.6	40.7	45.7
Middle	17.1	32.3	50.6
North	20.0	31.3	48.7
Norway	11.0	38.0	51.0

Source: OECD (1976, p.80).

(1976), average income in the North was 15% below that in the East in 1970. Therefore, there were income disparities as well. The question is: What kind of policy was introduced by the Norwegian government in order to correct such regional disparities? The next section will deal with matters related to this issue.

Development of the Approach to Regional Policy

2.19 Having shown their nature and magnitude, the policies adopted in order to overcome regional disparities in Norway need to be discussed. The principal aim of the Norwegian regional policy has been to secure a more balanced development between and within different regions of the country (OECD, 1976). The policy of decentralised concentrations was deemed the best to adopt. This policy aimed at centrally concentrating developments throughout the whole country, particularly in areas located away from pressured urban areas.

2.20 According to OECD (1976), three main justifications were behind the adoption of this decentralised concentration policy in Norway:

i The settlements existing prior to 1971 were evaluated as an out-dated pattern which did not suit the development in technology. Concentration as a policy was deemed the best approach to satisfying the needs of technology;

ii The then ongoing urbanisation was perceived as a reflection of the relative shift in demand from goods to services and of a shift from traditional industries to advanced sectors which were mainly concentrated in larger urban areas. Therefore, there was a need to get such industries concentrated away from the pressured areas in order to interrupt the direction of the massive urbanisation and to help in developing the backward areas; and

iii In order to achieve a compromise between the desired concentration approach and the willingness to overcome regional disparities, much emphasis has been put on the need for strengthening local growth centres.

2.21 The local growth centres were seen to be located away from congested cities, and to have a full range of industrial and other needed facilities in order to support both concentrations of industries and populations normal needs.

2.22 The question which lends itself to discussion is: What policies have been adopted in Norway in order to help such local growth centres in attracting firms and industries? In order for some of the newly establishing and/or relocating firms to locate in local growth centres, the Norwegian government applied various types of policy tools. The ultimate aim was not only to enhance the national industrial output, but also to help minimise regional disparities.

2.23 Some of the tools applied in favour of local growth centres in

Norway are as follows:

i The Regional Development Fund (RDF) was introduced in 1961, with the following aim:

> "It is the aim of the Regional Development Fund to promote measures which will ensure increased, permanent and profitable employment in districts with special employment problems or where underdeveloped industrial conditions prevail. In this respect the Board and Secretariat of the Fund shall assist with the investigation of the industrial possibilities in such districts as mentioned, and shall – by way of initiative, organisation, planning and co-ordination – ensure that the possibilities are utilised to the full. In its activities the Fund shall contribute to the development of expanding centres and other local centres in districts as mentioned in the first section". (OECD, 1976, p. 83).

Therefore, the Fund was geared towards helping the problematic areas. The above quotation reveals that a high number of local growth centres were located in such problematic areas. Consequently, the intention seems to have been more towards other issues than purely economic ones. If the aim was purely economic, such funds would have been directed to areas of justifiable potential so that achieving better levels of revenues could be better ensured. This implies the commitments of the policy to social equity as well: a policy of work-to-worker purposes;

ii In 1966, the RDF expanded from just being in the form of loans for industrial investments, to offering grants for moving industries from pressured areas, for training employees at the local growth centres as well as for extra starting costs during initial periods of new plants in development areas. Furthermore, direct investment grants – which applied only to new investments in the local growth centres – were introduced in 1971 (OECD 1976);

iii Tax incentives have been elements in the Norwegian regional policy, through which location of firms and industries might have been influenced. Industries locating in local growth centres were automatically eligible for such advantages;

iv The Norwegian Industrial Estates Corporation (known as SIVA) was established on January 11, 1968 (OECD 1979). It is a state-owned organisation. The purpose of SIVA is to develop and run industrial estates in places chosen by the Corporation Board.

Up to 1979, industrial estates have been provided in fourteen places. As a contribution to the policies aiming at minimising regional disparities in Norway, none of the industrial estates was located in Oslo or in any other pressured area (OECD 1979). They were treated as local growth centres with three aims: first; to stimulate development in surrounding areas, second; to participate in enhancing the overall national output, and third; to help shift industries from pressured areas.

As mentioned previously, a high number of the Norwegian centres were located in problematic areas. Despite being treated as local growth centres, the Norwegian industrial estates were located in local areas with promising potentials for development. Detailed studies for development potentials and adequacy of existing services were carried out at the stage of location selection, for almost all the fourteen industrial estates. To elaborate on that, OECD (1979, appendix 1) stated:

> "These locations have been chosen as a result of close appraisal of such factors as supply of labour, means of education, health services, social

services and banking business, etc.".

However the RDF services were extended to the extent of offering grants for training labourers in the industrial estates – since they were considered as local growth centres, that should participate in helping inhabitants of the disadvantaged areas. However, in order to ensure that locations of the industrial estates were adhering to the national spatio-economic development goals, they had to be approved by the government. Furthermore, SIVA was keen to select locations where technological and marketing needs could be satisfied. To emphasise this point, the OECD (1979, appendix 1) stated:

> "It is SIVA's opinion that the district where its industrial estates are located should meet the demands of modern industry for services. The localities where SIVA estates are already established all have good communications, both inside the region itself and outwards with the rest of the country".

This underlines vividly the consideration given to accessibility factors in selecting industrial locations in the Norwegian industrial estates.

Finally, it is worthwhile for our purpose to emphasise the clarity of aims of each industrial estate in Norway. For the government to ensure each estate's contribution in achieving the goal of a national balanced-growth, the plan of each estate stated an aim of 200-1000 jobs to be provided in a specific period. Such aims were essential requirements for obtaining the final approval of the government. Other settlement issues were closely considered in order to avoid future problems with the Norwegian industrial estates. For example, prior to

deciding upon the location of an industrial estate, attention had to be given to whether or not the available land would be extensive enough for current industrial development and future expansions: at least 75 acres of land were required in all cases for factory sites (OECD 1976);

v In 1971, the manufacturing industries were required to notify the government and seek permission for expansion and/or relocation (OECD 1979). As a prerequisite for permitting expansions and relocations, the Norwegian government tended to study the consequence of such actions on the achievement of the national and local goals;

vi As a belief in the role of public functions in helping minimise regional disparities in Norway, a government committee has been set up to provide guidelines for regulating location of new public offices and institutions, and to make constructive proposals for decentralised concentrations (OECD 1979);

vii From 1965 onwards, special committees were set up by the government for each of the five regions in Norway, to work out structural plans at the inter-county level.

> "The reports from these committees have provided comprehensive surveys of conditions related to population settlement, and proposals for development in various sectors and for land use". (OECD 1976, p.84).

Furthermore, an inter-ministerial committee was established in 1972 to ensure effective horizontal co-ordination between various sectors, as well as effective vertical co-ordination between municipal, county and national bodies (OECD 1979). Consequently, the committee co-ordinates

provision of services in local growth centres. The SIVA provides the whole range of facilities in the Norwegian industrial estates – which are considered as special local growth centres. Accordingly, the industrial programmes should not have been delayed for reasons related to lack of co-ordination among the service providing bodies. However, the co-ordination issue is a fundamental one that can affect future performance of any industrial programme: an issue which should be filtered for deliberate study from Saudi perspectives; and

viii Aiming at spatial shifting of industries towards the local growth centres, the Norwegian government provided a wide range of incentives. OECD (1976, p.86) summarised some of these incentives as follows:

> " ... investment grants for industrial buildings, machinery and equipment; the availability of factory buildings; investment loans (conversion loans only) and loan guarantees; fiscal concessions (tax concessions, social security costs) on investment and profits, on state investment aid and state changes; assistance towards industry relocation and settling-in cost; manpower moblity and relocation assistance; manpower training aids; state shareholding ... ; transport subsidies and preferential treatment in the award of government contracts".

Furthermore, Galenson (1986, p.72) wrote about other incentives:

> " ... , but industry benefited from direct transfers, special tax abatements, governments and guarantees".

Setting aside the detailed meaning of each of such incentives, they were offered in order to direct firms and industries towards the local growth centres – so that a balanced growth could be achieved. Factories locating far

away from markets (but within one of such rural growth centres) are eligible for such subsidies. Whether or not the policy succeeded in minimising regional disparities in Norway, this will be discussed in the next section.

Has the Policy Succeeded in Norway?

2.24 To evaluate the degree of success achieved by the local growth centres in Norway, we have to relate their performance and consequences to the aims initially stated for them to achieve. As mentioned previously, two aims were determined for the policy: first; overcoming regional disparities or achieving a balanced growth, and second; enhancing the overall Norwegian industrial output. The wide range of incentives and privileges offered to firms in order to locate in these local growth centres must have had considerable impact in attracting relocating and/or newly establishing firms towards the backward regions. However, there are no spatio-economic figures provided for evaluating the success of the policy in terms of enabling backward regions to absorb some of the development pressures occurring in the urban centres of Norway. Most of the available efficient references are of a purely economic nature. Nevertheless, Galenson (1986) provides satisfactorily efficient (at least for our purposes) studies for the performance of non-oil manufacturing industries in Norway.

2.25 Since the mid 1970s , manufacturing industry in major urban centres in Norway turned out to be mostly of an oil-related nature. Having stated that, the figures and arguments introduced by Galenson (1986) – which are concerned with the non-oil manufacturing industry – reflect to a great extent performance of the local growth centres and industrial estates in the Norwegian

backward regions. However, the study offers general issues which appear to be of great benefit to our later purposes in the context of this thesis.

2.26 Galenson (1986) accused the overall manufacturing industry in Norway of exporting large quantities of semi-fabricated commodities. That, in his view, led to a low value added component. In his opinion, a higher value-added product could be attained through completing the whole manufacturing cycle within Norway. However, he continued arguing that through exporting semi-processed materials, the government continued targetting the investments to industries in which the cheaper factors of production dominate - i.e. to industries related to natural resources rather than more advanced ones.

2.27 One of the many problems which are facing manufacturing industries in Norway, especially in the local growth centres, is the hesitation of individuals to carry the burden of establishing private enterprises, mainly due to the high risk involved.

> "It is strongly asserted by the management of small firms and by their organisations that fewer and fewer individuals are willing to take the burden of creating new enterprises". (Galenson 1986, p.66).

2.28 Consequently individual firms in Norway are mostly quite small, and mostly built with government support.

> "these smaller enterprises developed with government support. Some failed, others arose to replace them. They were important in providing both employment and output". (Galenson 1986 p.66).

2.29 Such small enterprises dominated the Norwegian manufacturing sector.

> "In 1981, firms with less than 50 employees constituted 90% of all manufacturing enterprises in the country ...". (Galenson 1986, p.66).

2.30 What about the performance of the manufacturing industry in

Norway? Prior to assessing the performance of the manufacturing industry in Norway, it is important to bear in mind that the policies of local growth centres and industrial estates have been adopted since the late 1960s, with the former aimed at helping problematic areas and the latter targetted to areas of better potentials for development.

2.31 For the purpose of building a comprehensive idea about performance of the non-oil manufacturing industry in Norway, Table Four shows the consequent changes in the manufacturing outputs, employment levels, annual output per employee, and unit labour costs over the period 1970-1984. The table shows vividly that the Norwegian manufacturing outputs began to stagnate in 1975, after peaking in 1974.

Table Four: Indices of Manufacturing Performance in Norway, 1970-1984.
1970 = 100

Year	1 Manufacturing Output	2 Employment	3 Annual Output/ Employee	4 unit labour costs
1970	100.0	100.0	100.0	100.0
1971	103.5	-----	-----	108.0
1972	107.3	102.3	104.9	114.2
1973	112.7	103.2	109.2	120.8
1974	116.9	103.7	112.7	137.1
1975	114.2	108.7	105.1	166.9
1976	114.2	110.1	103.7	187.8
1977	113.1	108.2	104.5	205.1
1978	110.8	104.8	105.7	221.5
1979	113.1	101.6	111.3	221.8
1980	114.2	102.6	111.3	239.5
1981	113.1	103.2	109.6	261.1
1982	110.8	101.6	109.1	268.9
1983	109.6	94.2	116.3	282.6
1984	113.1	96.1	117.7	296.7

-------: Not available

Sources: Col. 1. Central Bureau of Statistics, Historical Statistics, 1978; National Budget, 1985.
Col. 2. OECD, Main Economics Indicators, various issues.
Cols. 3 & 4 OECD, Historical Statistics, 1960-82; National Budget, 1985.
All borrowed from Galenson (1986, p.69)

2.32 As vividly demonstrated in Table Four, the manufacturing employment in Norway continued to fall during the late 1970s, but recovered noticeably in the early 1980s. The annual output per employee continued to increase most of the time. It peaked in 1974, simultaneously with the overall manufacturing output. The labour unit costs continued to increase dramatically.

2.33 The Norwegian manufacturing value-added product has always lagged behind that in other European countries, although it was increasing during the 1970s and the early 1980s.

> "From 1972 to 1982, the average annual increase in real value by manufacturing was 0.3% for Norway compared to 0.6% for Sweden, 2.2% for Denmark, ..." (Galenson, 1986, p.66)

2.34 Shedding more light on the Norwegian non-oil manufacturing's deceleration, the OECD economic survey (1983) reported that:

> "While the slowdown in measured labour productivity growth has been a pervasive feature of OECD economies since the early 1970s, Norway has been among the most severely affected. Norwegian industry's relative productivity performance deteriorated by 15% over the past decade. The relative decline as particularly pronounced in the four years to 1977, followed by productivity growth, decelerated in all industrial branches with the sharpest slowdown recorded in the export competing industries". (in Galenson 1986, pp.67-68).

2.35 Galenson (1986) comments on some factors which are probably being blamed for the deceleration and stagnation of non-oil manufacturing outputs, productivity and value added in Norway, some of which are as follows:

i Galenson believes that there is a causal relationship between magnitude investments on one hand and manufacturing output on the other. Total Norwegian investments remained high throughout the post-war years. Nevertheless, the proportion allocated to manufacturing fell from 15.2% in

1970 to 10.8% in 1982.

> "Part of this decline was due to investment in oil, but even if the oil sector is excluded, the manufacturing share was down to 12.5% in 1982". (Galenson 1986, p.69).

Therefore, the magnitude of investment allocated to non-oil Norwegian manufacturing has been noticeably decreased. Furthermore, allocation of the investments became for non-economic purposes. (Galenson 1986, p.70) wrote:

> " ... a substantial proportion of investment was allocated by the government on the basis of considerations other than profitability. This means that new capital was not being applied where it would maximise output, ... ".

As previously mentioned, the Norwegian government has been keen to overcome regional disparities. A large number of the designated local growth centres were located in problematic areas, for the purposes of providing employment and spreading benefits to surrounding areas and accordingly stimulating spatio-economic developments of such areas. Almost all industries in such local growth centres enjoy various incentives and subsidies in order to remain operating. Such incentives may fall under the umbrella of what Galenson described in the above quotation "considerations other than profitability".

Accordingly, it can be argued that there was a trade-off between achieving the two goals of 'enhancing industrial output' and 'overcoming regional disparities' simultaneously in Norway. Concentrating industries in areas with high potential values (e.g. high demand, skilled labour, abundant raw materials, ... etc.) could have led to a better economic value-added. However, the Norwegian government accepted the

probably high opportunity costs associated with targetting high proportions of investments specified for the non-oil manufacturing industry to problematic areas for the sake of achieving a better balanced growth;

ii Labour wages have increased dramatically since 1974. The wages demanded by the trade unions and agreed by employers could primarily be blamed for that (Galenson 1986). Consequently, the unit labour costs increased more and faster than the unit labour productivity. Concerning this, Galenson (1986, p.68) wrote:

> "There can be no doubt that this was a major factor behind the difficulties faced by Norwegian producers"

Furthermore, this increased the risk in establishing individual enterprises. Severe losses occurred and many small businesses closed. This must have partially led to the previously demonstrated reduction in the Norwegian non-oil manufacturing outputs;

iii In a large number of cases, firms and other industrial plants in local centres continued depending on public incentives and subsidies, without which they could have gone bankrupt. As argued before, such continuous subsidies could have been used in helping other economically viable firms to establish themselves in other areas where factors of production could be comparitively more available. However, the Norwegian government tried to terminate the incentives due to the day-after-day clear overall losses. That was difficult to execute for political reasons.

> "The lesson which may be learned from the Norwegian experience is that once in place, government support to industry is very difficult to terminate

because of political pressures to continue it". (Galenson 1986, p.74).

Despite the purely economic advice for terminating subsidies to industry, different Norwegian governments have been keen to either maintain or increase them. Rationalising the provision of subsidies so that better results could be achieved was of secondary political importance. This argument will be recalled and highlighted later;

iv Weak management of subsidy allocation caused problems to the overall manufacturing industries in Norway.

> "With few exceptions, the subsidies and loans granted were not conditional on steps being taken by the enterprise concerned towards rationalisation, product development, or structural change". (Galenson 1986, p.74).

Therefore, incentives and subsidies have not been given according to production and progress considerations. When established, a firm in a Norwegian local growth centre is automatically eligible for some sort of constant incentive;

v Almost all export industries are insured against loss from foreign exchange fluctuations. This is mainly to minimise individuals' hesitation to carry the burden of establishing such kinds of industry. This type of insurance led to the creation of a large number of enterprises exporting semi-processed raw materials. As argued previously, these practices decreased the Norwegian manufacturing value-added for two reasons: first; the multiplier effect which could be generated by completing the industrial cycle within the country was lost, and second; market conditions in other countries (e.g. demand levels) control the revenues gained by such types of Norwegian industries. However, having the

government compensating this type of industry for the foreign exchange losses should have led to negative impacts on the whole economy, although this – as argued above – stimulated the creation of more export-oriented industries. Because the insurance does not extend to guarantee profits in the case of loss due to factors other than foreign exchange, many export industries tended to keep their products until market conditions in other countries improved – so that better revenues could be gained. Consequently, levels of revenues have decreased most of the time for the export manufacturing industries, since they have been paying more attention to price levels of raw materials in countries to which they export; and

vi Quoting from the Norges Bank's Economic Bulletin (1980, no. 4), Galenson (1986 p. 74) wrote:

> "The explanation for the weak trend in productivity is in large measure the fact that Norwegian companies retain workers who are not fully employed. Public support measures have often made this possible".

In order to keep unemployment rates as low as possible in Norway, the number of employees has been one of the basic criteria in light of which the level of public incentives to firms are determined. Economically speaking, this reduced the output per employee: in order for any firm – especially the small ones – to receive more incentives and subsidies, it tends to retain as many employees as it can. Consequently, the overall manufacturing productivity has decelerated in Norway.

2.36 Indeed employing incentives to encourage the manufacturing sector to accomodate more employees has underlying political aims

and economic consequences.

> "Labour's commitment to the maintenance of full employment at any cost left Norwegian manufacturing in a weak position ... In the long run, this critical sector of the economy would have been able to supply more rather than fewer jobs". (Galenson 1986, p.74).

Different Norwegian governments continued employing the incentive and subsidy policies for their political advantages (Galenson 1986). Each party tended to increase its financial support to enterprises in order to employ more personnel. In this way, unemployment levels could be brought down: a factor which may help to increase social support for the party concerned, especially at election times. The truth is that for most of the time low unemployment rates were not reflective of a progressive manufacturing output per employee. As quoted previously, the Norwegian non-oil manufacturing sector would be able to create enough jobs in the long run if incentives were targeted to effectively developing it, rather than employing them for fulfilling short term social and political purposes.

2.37 To sum up, the policy of decentralised concentration was applied in Norway mainly for overcoming regional disparities. A wide range of subsidies and incentives were offered to enterprises locating away from the pressured urban areas. However, in aggregate terms, the Norwegian non-oil manufacturing industries decelerated in terms of revenue and output. Factors like weak management of subsidies, exporting semi-processed (rather than fully- manufactured) raw materials, political considerations behind investments and directing investments to problematic rather than areas with high development potential are directly blamed for such manufacturing deceleration in Norway. In general, the Norwegian

experience demonstrates the existence of trade-offs between maximising national manufacturing output and minimising regional disparities, simultaneously. Achieving one of them seemed to be possible only at the expense of not achieving the other.

2.38 The next section will study the experience of policy in Britain: another case study which will potentially create more study issues for the future of policy in Saudi Arabia.

APPLICATION AND PERFORMANCE OF POLICY IN BRITAIN

GROWTH AREA POLICY: APPLICATION

2.39 The ideas of Francois Perroux came to influence regional development and planning policies in Britain, as it did in almost all the other European countries. The initial justifications which led to the adoption of the growth area policy in Britain are described by McCrone (1969. p.208), as follows:

> "The assumption underlying this idea are: first, that the cost in terms of public outlay would be less for a policy based on concentration; second, that owing to the external economies which would be generated, concentrated economic activity would be more efficient and, therefore, more likely to grow; and third, because of the above factors, a policy based on growth areas would be more likely to be successful in raising regional growth rates and, in the long run, in curing unemployment than a policy of diversification and dispersion".

2.40 The term "external economies" in the above quotation implies the leading role of Perroux's propulsive industry, which leads progress of the other grouped functionally-linked industries. Keating and Boyle (1986) express the adherence given to the ideas of Perroux by the 1960s British regional policy. They argue that the 1960s saw the growth of regional planning and growth pole philosophy in which the British development regions were led by their dynamic areas. However, the economics of infrastructure and

the belief in the positive róles of the agglomeration economies were the main factors behind the adoption of the initial growth area policy in Britain.

2.41 To be fair in judgement, concentration approaches to development were proposed in Britain even prior to the emergence of Perroux's ideas. Quoting from a report of the Royal Commission on the Distribution of Industrial Population (1940, p.223), McCrone (1969, p.208) mentions that:

> "Where it may not be possible to start new industries, the key to the problem is that long-distance mobility of labour is difficult to stimulate, but short-distance mobility is easy to stimulate ... Industry would be located in existing key points, as near as possible to the distressed areas or other areas of high unemployment, where there is now some prosperity".

2.42 Therefore, concentrating industries in "key points" was a preferred development approach in Britain, providing that: first, there were prospects for development and growth in the areas chosen for concentration; second, there was a possibility of overcoming transport problems through linking areas of work with areas of labour; and third, where distressed areas could be helped. Ensuring that benefits were spread from such growth areas to the surrounding areas was an implicit aim behind such a policy. However, the economic side of the justifications became vigorous only after the emergence of Perroux's philosophy.

2.43 The growth area policy was officially introduced in Britain by the White Papers in 1963, to be applied in Scotland and North-East England (McCrone 1969). The policy was officially justified as follows:

> "This programme represents a more positive approach to regional economic development than any government in this country has yet attempted. It incorporates the conception of growth areas, chosen as potentially the best locations for industrial expansion. The

development of these areas will be fostered by providing for them, in accordance with a coherent plan, all the 'infrastructure' services, e.g. communications, water supplies, housing – which industry needs; and also by maintaining in them, as long as the economy of Central Scotland as a whole requires, the inducements available for industry in Development District" (Cmnd. 2188, para. 3, in McCrone 1969, p.210).

2.44 Four points can be extracted from the above quotation: first, as argued previously, concentration of industries had to be directed to areas with potential prospects for development and future expansion; second, such areas were programmed to be fostered by a wide range of infrastructure services in order to prepare them for attracting and stimulating the creation of industries; third, such provision of services would be in context of 'coherent' plans; and fourth, duration of such growth areas was not determined right from the start – the opposite to what happened in Spain, as will be described in due course – but instead expressed as: "by maintaining in them as long as the economy ... requires". However, the intention to locate industries in areas of high potential for development and expansion contradicted the 1960 Local Employment Act, which was a policy of taking work to the workers (Central Office of Information, 1976).

2.45 In the implementation stage, at least eight growth areas were selected in Central Scotland. A large growth zone, covering the greater part of the area, was identified in the North-East. However, the policy faced difficulties and competition with other policies at the implementation stage, some of which are – according to McCrone (1969) – as follows:

i The criteria for selecting the growth areas were not precisely defined;

ii Centres had to be built up to receive overspill from Glasgow,

whose rebuilding programme required the rehousing of a large proportion of the city's population; and

iii Space suitable for urban development was limited due to the topographical nature of Central Scotland.

2.46 As described previously, fostering concentrated industries was planned to take place in the context of Coherent Plans. Consequently, regional planning in Central Scotland took the form of preparing sub-regional plans for the eight identified growth areas. To achieve the required coherence, such plans covered both physical and economic aspects (Keating and Boyle, 1986). Nevertheless, they were weak from the implementation point of view. The last sub-regional plan was prepared for West Central Scotland in the period 1970-74. It laid the groundwork for the Structure Plan which the new Strathclyde Regional Council prepared, as the local government was reformed (Keating and Boyle, 1986).

2.47 Political conditions showed no faithful adherence to the growth areas as a regional economic and spatial policy, despite the initial commitments given to the policy. The growth area policy was originally adopted under the Conservative government but it was largely abandoned when Labour came to power.

> "The Scottish plan made not a single reference to the growth areas in Central Scotland and new advance factories have been set up in a number of places without reference to the growth areas". (McCrone, 1969, p.212).

2.48 McCrone (1969, p.212) continued arguing that:

> "The regional policies now no longer apply to small districts defined by their unemployment percentages, but are available on a wide regional basis ..., industrial development is now free to go to the location within a region which it finds most attractive".

Therefore, the intention became focussed on encouraging industrial

development in larger areas, rather in only tightly defined areas.

2.49 Despite being abandoned, the main principles of the growth area policy still dominated regional policy in Britain for much of the 1970s. Under the Industrial Development Act 1966 the development districts were replaced by wider continuous development areas, where special measures were thought necessary to encourage growth and proper distribution of industry. The areas comprised most of Scotland and Wales. Wide ranges of grants were offered by the Act to firms establishng in the designated development areas. Grants in development areas were 40%, compared with 20% in other areas, of the total cost of a wide range of new plant and machinery for the manufacturing, extractive and construction industry. Furthermore, building and other grants were provided in the development areas. (Central Office of Information 1976).

2.50 In order to stimulate the minimisation of unemployment rates, "Regional Employment Premium" was introduced in 1967 for employers to offset labour costs in manufacturing industry:

> "The Regional Employment Premium (REP) was originally paid at the rate of £1.50 per week for each full-time male worker in maufacturing industry in a develoment area with lower rates for women, £0.75, young people and part-time workers. In August 1974 all rates of REP were doubled ... " (Central Office of Information, 1976, p.18).

Whether or not the REP was generous enough, it was an attempted approach to minimising unemployment rates.

2.51 Certain places within the development areas where, in the absence of special measures, colliery closures were expected to cause high and persistent unemployment were designated "special development areas" in November 1967. (Central Office of Information, 1976, p.19). In this aspect, policy and planning was pro-active and anticipatory for the problems. However, rent-free

periods of up to five years' for firms renting Board of Trade's factories, Employment Premium Grants (EPG) and other incentives were provided in favour of those special areas. The intention was mostly to help those areas regain and retain their development confidence, and push forward their abilities to attract and retain job and economic generators.

2.52 Some places outwith the development areas showed decelerated growth performance. Being reactive, this time, government decided to give assistance to such areas through the formulation of the Local Employment Act 1970. Such areas were termed "Intermediate Areas". (Central Office of Information, 1976, p. 19).

2.53 In October 1970, the Conservative government, which took office in June of that year, announced changes in policy on incentive investments. Investment grants were replaced by tax allowances which applied to all manufacturing and service industries in Britain as a whole. Additional incentives were provided in order to encourage location and expansion of manufacturing industry in the development areas. The rate of building grants was increased in the development areas. Furthermore, in February 1971, government extended the boundaries of the Special Development Areas in some parts of the country, to help the areas which suffered from long standing unemployment - e.g. a new special area centred in Glasgow was designated. (Central Office of Information 1976).

2.54 In 1972, a white paper Industrial and Regional Development was issued by the government to set out what was described as "The most comprehensive and extensive programme to stimulate industrial and regional regeneration ever undertaken in Britain". (Central Office of Information 1976, p. 21). The Industry Act 1972 included

measures for implementing the above mentioned programme. One of the Act's most important actions was:

> "The Industry Act extended intermediate area status to almost the whole of the North-West, Yorkshire and Humberside Planning Regions outside the development areas, ... ". (Central Office of Information 1976, p. 21).

Furthermore, the Act converted some development areas into special development areas (e.g. areas of Merseyside and parts of North-West Wales). Some intermediate areas became development areas (e.g. Cardiff and Edinburgh).

2.55 Therefore, in general terms, concentrating industries in tightly defined spatial areas has been relaxed as a regional policy in Britain since the late 1960s – when growth area as a development approach was ignored. Damesick and Wood (1987, p. 42, after Sundquist, 1975, p. 64) mention that "with the Industry Act of 1972 Britain, after nearly half a century of experimentation with regional policy, was very near to concensus".

2.56 Generally speaking, regional policy was active in Britain in the 1960s in order to master the then pressures for growth. As a response to the decelerated growth of the British economy, emphasis was directed in the late 1970s and in the 1980s towards urban programmes.

> "New urban policy initiatives were taken by the Conservative administration, including the establishment of Urban Development Corporations for the London and Merseyside docklands, and the designation first of eleven and later of another fourteen Enterprise Zones". (Damesick and Wood, 1987, p. 48).

Besides these, the Glasgow East-End Area Renewal Programme (GEAR) is evidence of the attention paid to inner cities in the 1980s.

2.57 But what happened to the regional development areas? By 1984, many of the assisted areas had been eliminated. The old three tier

assisted area system had been replaced by a two tier system – i.e. development and intermediate areas.

> "Special Development Areas (SDAs), with their 22% rate of RDG, were abolished; Development Areas (DAs) (15% RDG rate) were retained, but their spatial coverage was reduced compared with that of former SDAs and DAs combined – from 22% of the working population to 15%. Intermediate Areas (receiving selective assistance only) were expanded, ... " (Damesick and Wood, 1987, p.57).

2.58 Therefore, application of the principles of growth area policy at the regional level in Britain decreased. This may not necessarily indicate their failure, but the economic recession and the increasing phenomena of deteriorating urban spatial and economic conditions led (to a great extent) to targeting investments in tackling the problems of urban areas. This, however, poses the question: Have the British growth areas been successful?

GROWTH AREA POLICY: CONSEQUENCES

2.59 The regional policy adopted by successive post-war British governments was attempting mostly to ameliorate regional disparities through stimulating economic activities in the Development Areas (DAs). (McCrone 1969). This was mainly attempted by stimulating relocation of economic activities from regions with high employment and growth prosperity towards the DAs – i.e. a work to workers policy – and through stimulating creation and expansion of indigenous industries within the DAs. Therefore, assessment of the consequences of policy should rely on its ability to shift industries to as well as to create industries in the DAs.

2.60 Prior to reviewing some studies which assess the performance of policy, it is worthwhile emphasising that adequate information

relevant to the performance of the 1960s growth areas is not independently available. (Damesick and Wood 1987). Therefore, the assessment will be carried out for the impact on both the early growth areas and on the later larger development areas. However, clarifying their aggregate consequences should be helpful for our purpose, since the later were designated for the same purpose as the early growth areas but in a more extensive spatial context.

2.61 The studies carried out by Moore and Rhodes - at various points in time - and by Brian Ashcroft (in 1978 and 1980) will be extensively used in the enlightenment of the impact of the British post-war regional policy on the growth of employment in the DAs, and the diversion of manufacturing firms and other economic generators to the DAs.

Employment Growth in the DAs

2.62 The period 1951-63 was a period of passive regional policy in Britain, when the policy framework existed but when the implementation of it was lacking. The 1963 Local Employment Act introduced regionally differentiated investment incentives - as demonstrated previously - and hence announced the start of a new era in active regional policy.

2.63 Moore and Rhodes (1973) estimate that over the period of active policy, 1963-70,

> "the cumulative effect of regional policy on the composite DAs employment was 150,000 jobs in excess of the number which would have resulted if the passive policy period had continued into the late 1960s". (Ashcroft 1978, p. 13).

Leaving aside the validity of the techniques used in such an estimation, the study believes in the success of the policy in terms of aggregate job creation. However, the estimated total

effect of the more active regional policy in this period was:

> "to be in the order of 220,000 jobs" (Ashcroft 1978, p. 13).

Furthermore,

> "they estimate the effect of regional policy on the Scottish economy between 1963 and 1970 to be between 70,000 and 80,000 additional jobs by 1971". (Ashcroft 1978, p. 13).

2.64 According to Diamond and Spence (1983), if the comprehensive study carried out by Moore, Rhodes and Taylor (1977) is accepted, then the conclusion is that about 115,000 jobs had been created in Scotland between 1960 and 1976. However, Moore, Rhodes and Taylor (1977) indicated in a more sophisticated study than their previous ones – according to Diamond and Spence (1983) – that 76,000 jobs were created in the Scottish manufacturing sector during the period 1960-70, most of which occurred in the DAs.

2.65 Many studies carried out by McKay (1978) and others agreed on the positive impacts of the British post-war regional policy on job creation – especially in the designated DAs. However, Ashcroft (1978) argues that these estimations of impact of the British regional policy are seen to be crucially dependant upon predictions of the behaviour of employment in the hypothetical policy-off situation. He continued arguing that:

> "The more favourable growth in the DAs in the policy-period may be in part due to a number of non-policy factors: an increase in the inward flow of mobile firms following an improvement in the attractiveness of those regions, such as an increase in their relative labour availability, ... " (Ashcroft 1978, p. 20).

2.66 Nevertheless, the incentives and grant policies which were in favour of the DAs should have increased what Ashcroft called "the attractiveness" of certain regions for enterprises. Furthermore, the above mentioned studies compared what actually happened under

the umbrella of the active regional policy with what could have happened if the policy-off period conditions continued: this is a reasonably efficient evaluation approach. However, none of the studies argued against the success of the DAs as far as job creation was concerned. The question now is: Were the DAs capable of attracting (or polarising) firms from other parts of Britain?

Movement of Firms to the DAs

2.67 We have seen that there is a kind of agreement among the different evaluation studies on the success of the DAs in terms of job creation, despite the differences in the estimated figures. This answers only part of the question: Have the DAs succeeded in Britain? The policy also aimed at shifting industries from the pressured urban areas to the DAs. Therefore, the ability of the DAs to influence the locational decisions of firms should be highlighted.

2.68 In his study (1978, p.21), Ashcroft wrote:

> "The evidence suggests that the financial inducements of regional policy had a limited effect on the decision to move".

As this may appear to be an astonishing argument, the types of 'evidence' should be expressed. Ashcroft (1978) continued arguing that firms by and large were pushed out of their original locations rather than pulled into DA locations.

> "In Law's (1967) study of a sample of 28 firms which had moved into Northern Ireland, 11 firms, or 39% of the sample, moved primarily because of difficulty in obtaining labour at their original location".

2.69 Ashcroft (1978) supports his arguments by mentioning that the findings of Luttrell (1962) and Townroe (1971 and 1972) have shown, in the former, 74 firms or 80% of the sample and, in the latter, 17

firms or 29% of the sample moved to DAs mainly because of difficulty in obtaining labour (Ashcroft 1978, p.22). He introduces other research studies which show that firms move to other locations for reasons like inadequacy of premises and inability to face expanding market conditions. Therefore, such studies show that the DAs might not be able to significantly influence the locational decisions of the relocating firms. It seems that the polarisation ability of the DAs would have been stronger if they were executed in spatially tight spaces, where incentives could be tightly concentrated. This argument will be highlighted in contxt of studying the experience of the Enterprise Zones (EZs) in Britain: a modern fashion with a trace of the growth area concept applied in restricted areas.

ENTERPRISE ZONES

2.70 Enterprise Zones (EZs) were announced as an experimental initiative in the 1980 British budget. Their purpose has been described in the Department of the Environment brochure (April, 1981) as follows:

> "The idea is to see how far industrial and commercial activity can be encouraged by the removal of certain tax burdens, and by relaxing or speeding up the application of certain statutory or administrative controls". (in Tym R. and Partners, 1984, p.1).

2.71 The areas designated as EZs have to enjoy several advantages, some of which are introduced by Tym and Partners (1984) as follows:

i exemption from Development Land Tax (DLT);

ii exemption from rates on industrial and commercial property;

iii 100% allowances from Corporation and Income Tax for capital expenditure on industrial and commercial buildings;

iv exemption from industrial training levies and from the

requirement to supply information to Industrial Training Boards (ITBs); and

- a greatly simplified planning regime: developments which conform to the adopted scheme for each zone do not require express planning permission.

2.72 Prior to studying the application and performance of this type of policy, it seems important to ask, and to try to answer, the question: From where, when and why did the idea of EZs come into existence?

2.73 Butler (1982, p.95) mentions that:

> "In the formal sense, the term 'Enterprise Zone' was publicly unveiled in a speech by Sir Geoffrey Howe, M.P., in June 1978, while he was economic spokesman for the opposition Conservative Party".

2.74 It seems that politicians sometimes read more into economic theories than such theories can offer in practical terms. The concept of the Enterprise Zone was cleverly formulated in a modern fashion for Perroux's ideas. Concentrating infrastructure facilities and other economic privileges was deemed a good approach to adopt in attracting firms to certain areas from whence benefits can be spread to surrounding areas. In other terms, EZs were adopted as a policy probably due to a political belief in the theoretical justification attributed to concentrated industries – e.g. mechanisms of polarisation, trickling benefits to surroundings, stimulating the role of Perroux's propulsive industry in initiating benefits through the forces of external economies. The British Conservative party in opposition in 1978 were probably searching for policies by which they could strengthen their electoral position. The introduction of EZs as a new policy aimed at the attraction of more jobs in certain areas, from where

benefits might spread to other areas, would seem to have been one such policy.

2.75 Such unannounced political aims of urban initiatives and sectoral decisions do not occur only in Britain. We have seen how successive Norwegian governments tended to employ some non-oil manufacturing industries incentives and subsidies in such a way that the unemployment rates could either be brought or kept down. This was attempted by each party mainly to increase their share of the vote, by reducing unemployment. This led to a severe negative impact on Norwegian manufacturing productivity, particularly due to the absence of a long term basis for development in this important sector.

2.76 In terms of application of EZs, the first 11 zones were designated in 1981-82. A second batch of 14 zones were designated in 1983-84. In aggregate terms they totalled 25 EZs of which 23 were in Britain and two were in Northern Ireland.

2.77 According to the DoE 1985, there were 53,500 employees in the British EZs in December 1985, the largest number of them occurring in the 11 first round designated zones. At the same time, just over 2,330 establishments were located in the British Zones collectively. In the U.K., the 23 EZs cover an area of 3,486 hectares, of which 50% was developed by 1985.

2.78 The total number of employees increased by 46% (10,400) in the first round zones between designation and December 1985. Employment in the second round zones increased by 170% (i.e. 9,300) between designation and December 1985 (DoE, 1985, p.7). The number of establishments increased in all zones.

> "The increases were larger in the first round zones than the second". (DoE, 1985, p.9).

2.79 However, such success in terms of job creation was preceded by generous investments. For example, there has been substantial public investment in land acquisition, infrastructure and buildings in all the British EZs totalling £172 million by March 1985. (DoE, 1985, p.15).

2.80 Therefore, two points may be highlighted regarding the above. First, the first round EZs have shown a better performance than the second round ones in terms of polarisation. This emphasises the importance of the time dimension for such a policy. The success of the Conservatives in retaining office seems to have given the EZs a longer life than if another party had come to power. Second, the EZs enjoyed generous incentives and privileges without which they might not have shown such effective polarisation.

2.81 In order to assess the success of the EZs, it is necessary to judge their ability to stimulate the creation of jobs from scratch, to polarise industries from outside their individual regions and to spread benefits to their surrounding areas. The previously provided data shows a dramatic increase in job numbers in all the British EZs up to 1985. However the figures do not go far enough in giving the proportion of jobs which were actually created - rather than polarised - by the zones. It is difficult, therefore, to evaluate the ability of the EZs to create jobs from scratch. Nevertheless, Tym (1984) argues that 85% of firms would be operating in the same region in the absence of EZs and that only 4-12% of new firms might not have been started without the zones. He also found that 90% of relocating firms came from the same regions. (Keating and Boyle 1986). If such findings are accepted, then at least two points can be emphasised:

1 EZs are more successful in influencing location decisions of

existing firms than in stimulating the creation of firms from scratch; and

ii EZs seem to affect decisions on site location of firms which relocate within their regions, but with less ability to influence their decisions as to which region they will locate in; i.e. they stimulate polarisation only of in-region enterprises.

2.82 Therefore, EZs (according to Tym – see above) show great ability in terms of attracting firms from the same regions but not from other regions. In doing so, EZs are accused of attracting firms which could have located and stimulated development in different decayed urban areas in their regions. Thus, the polarisation success shown by EZs could be at the expense of the surrounding decayed urban areas – and also at the expense of backward and depressed areas in the same regions. However, attention will now be devoted to studying the experience of the concentration policy in rural Britain.

KEY-SETTLEMENTS AS AN APPROACH IN BRITISH RURAL PLANNING

2.83 The importance of illuminating the experience of the Key-Settlement policy in rural Britain in the context of this thesis emerges from two perspectives. First, this policy was introduced with the hope of solving some of the British rural problems which were linked with depression and backwardness. Therefore, researching the application and performance of this policy will help in extracting some study issues for the future of the hierarchical pattern of growth and development service centres in Saudi Arabia, which is proposed primarily to tackle problems linked with rurality and backwardness. Second, the Key-Settlement policy

was applied in some parts of rural Britain when reverse migration (i.e. from urban to rural) occurred. This stage is now current in Saudi Arabia. Therefore, the type and time of British Key-Settlement policy seems to be relevant to, and of great help for, the purposes of this thesis.

2.84 Key-Settlement policy aims at concentrating development in few rural settlements. Such a policy has been proposed by

> "very many local planning authorities, initially in the Development Plans which were prepared in the 1950s, more recently in the Structure Plans, as well as in informal or interim rural policy statements in the 1960s" (Martin and Voorhees, 1981, p. 13).

2.85 Forms and details of Key-Settlements mostly differ from one county to another.

> Some policies have emphasised the concentration of new housing development in planned areas, whereas others have emphasised the provision of new services and facilities" (Martin and Voorhees, 1981, p. 15).

Nevertheless, the general aim was embodying the term 'concentration' in all cases. The policy was aimed at generally encouraging development in some settlements and discouraging it in others.

2.86 The theoretical basis for Key-Settlement policies was judged by Cloke (1979) to have three strands: the growth centre theory of economics, central place theory in geography and, thirdly, theory of thresholds and ranges of goods from the economics of service planning. It is worthwhile to elaborate on each of these three strands.

2.87 Concentrating investment in Key-Settlements is seen, according to the growth centre theory, as a means of polarising economic activity and spreading benefits to the surrounding non-Key Settlements. Economics of agglomeration and infrastructure

provision justified the adoption of the Key-Settlement as a policy of concentration in British rural planning.

2.88 The central place theory emphasises the importance of the centrality of Key-Settlements so that non-Key Settlements can be scattered around them equidistantly (at least in theory). Although selection of the Key-Settlements tended to take account of the existing services, it seems that the selection was also affected by the central place concept. According to Cloke (1979), Bracey (1962) noted that the distance from one central village to the next was usually five to six miles, with the non-central villages scattered around them.

2.89 The concepts of range of goods and thresholds were borrowed from Christaller's central place theory to economically and socially justify adoption of the Key-Settlement approach in rural Britain. Building one school in a central settlement was deemed more efficient in terms of serving a large population – i.e. those in the Key-Settlements and in the surrounding non-Key Settlements (= threshold concept). Also, the selection of the Key-Settlement as a place in which such a school would be located was due to range measures, i.e. Key-Settlement is supposed to be centrally located so that population of non-Key Settlements can reach the concentrated services easily. However, the three economic, centrality, threshold and range issues are coherent and might have worked together to justify the adoption of the Key-Settlement policy in some rural areas of Britain: the underlying aim was probably to reduce the cost of service provision in the dispersed rural settlements.

2.90 In addition to these justifications, there is an underlying social theory about the pattern of social relationships in rural

areas.

> "There is assumed to be a degree of dependence on large centres by the residents of small villages and isolated settlements. There is a view that life in the larger centres offers greater opportunities for social interactions and the pursuit of activities and is, therefore, socially more desirable, than life in small settlements" (Martin and Voorhees, 1981, p. 15).

Nevertheless, the clearly emphasised justifications of the adoption of the Key-Settlement policy are economically biased.

2.91 A large number of British counties adopted this kind of policy, but most of them have not closely appraised its viability and practicality. Martin and Voorhees (1981, p. 13) reported after the DoE (1975) that:

> "Plans vary widely in the criteria used for selecting Key Villages, and in their subsequent policies for both Key and non-Key Settlements. The degree of detail in which policies are expressed also varies, for instance, whether the actual amount of growth for each settlement is specified or not. The appropriateness of the Key-Village Concept for the county concerned is not questioned and the role of many rural villages as Commuter Settlements appears to be accepted as inevitable. The relationship between housing, employment and transportation policies and the overall settlement strategy received little consideration in many plans".

2.92 In light of the above, four points can be specified: first, it seems that some counties adopted the Key-Settlement policy without giving attention to the pragmatic side of concentration policy; second, aims and required levels of growth in each Key-Settlement were not precisely defined in almost all cases, and that would have contributed to making an assessment of the consequences of policy quite difficult; third, Plans generally have not specified the interaction between transportatin policies and, for example, employment and service policies (i.e. weak in terms of integrating concentration with other policies); and fourth, it seems that there were no identical criteria for the selection of Key Settlements in

rural Britain.

2.93 The Key Settlement approach is still active in many of the British counties. Cloke (1979 and 1983) and Martin and Voorhees, (1981) evaluated the consequences of the Key-Settlement policy in many British counties. Accepting their findings, the policy can be assessed from two perspectives: economic and social.

Economic Consequences

2.94 Residential and employment growth, setting aside their magnitudes, have been mostly concentrated in the selected Key-Settlements, where services and infrastructure have been provided. This in itself can be considered as having a successful impact on the policy since things have proceeded in the direction indicated by the Key-Settlement concentration goals. Some small-scale industries have located in Key-Settlements and provided some - albeit few - jobs in the rural areas. Furthermore, discouraging development in all settlements except Key-Settlements should have helped to preserve rural agricultural land and other areas of natural resources and beauty from being invaded by expansion of the growing settlement spread.

2.95 On the other hand, British Key-Settlements faced problems without which they might have shown better results. In a large number of cases, weak co-ordination between planners and bodies governing the provision of water, health, education and other services caused planned Key-Settlements to be delayed (Cloke 1979).

2.96 It has been found to be almost impossible to refuse development permission in some non-Key Settlements which have existing infrastructural capacity (Cloke 1979). This contradicted the essence of Key-Settlement Policy which calls for concentration

of development in particular settlements. Such actions were partially blamed for eliminating the polarisation and trickling down mechanisms which could otherwise have been shown by the Key-Settlements.

2.97 According to Martin and Voorhees (1981), success in terms of provision of infrastructure, often in the form of small industrial estates, has been found acceptable in most of the Key-Settlements. Despite that, their ability to attract or stimulate the creation of industries and other job generators was a neglible one. The firms attracted to Key-Settlements are mainly branches of larger firms located in highly centralised urban areas. Consequently, it is believed that benefits are spread up the hierarchy of urban centres rather than centrifugally to the surrounding areas.

2.98 Cloke (1979) and Martin and Voorhees (1981) independently argued that British Key-Settlements suffered from the lack of skilled labour and profitable market conditions. Such factors, amongst others, caused industries to hesitate about locating in rural areas generally. Consequently, Key-Settlements worked most of the time as service centres rather than development centres.

Social Consequences

2.99 The priority given to Key-Settlements in terms of the provision of facilities has ensured that at least the majority of rural residents now enjoy improved standards of water, electricity, and other services. However, most of the British non-Key Settlements are not efficiently linked with the Key-Settlements. Absence of efficient transport connections in some cases led Cloke (1979) to argue that Key-Settlements provide social benefits to those people living in them, but rural dwellers in the hinterland

are disadvantaged because of the policy of extreme central concentration. Therefore, the policy has not given serious consideration to how people of the hinterland can benefit from the services provided in the Key-Settlements.

2.100 Small scale industries and the improved services in most of the Key-Settlements led to a reasonable stemming of rural depopulation. However, at the time of adopting this kind of policy, Britain was experiencing a reverse migration, as described previously. This general process might have helped Key-Settlements in stemming rural depopulation, and probably regaining some of their previously lost population. Furthermore, remarkable internal migration has taken place from non-Key to Key-Settlements. This should gradually help concentrated central services to achieve better economic threshold measures (i.e. to be better utilised).

2.101 Having researched the experience of growth area and central place approaches in Britain, the next section will study the experience of such policies in Spain: a study which will help in extracting issues for the study of policy in Saudi Arabia.

APPLICATION AND PERFORMANCE OF POLICY IN SPAIN

2.102 Prior to dealing with the policy in Spain, it is worthwhile stressing two points. First, it is inevitable that reliance be placed on Richardson (1975) due to the absence of other substantial references. This is unfortunate because it mainly evaluates the policy up to 1971. However, it will help in highlighting some vital study issues for the future of policy in Saudi Arabia. Second, although Richardson (1975, p.30) wrote that "the theorists have never succeeded in satisfactorily linking the Perrouxian functional pole and the geographical pole together", he used to

differentiate between growth centres and growth poles as of regional or national scales or aims respectively. Furthermore, the concentrated industries are called industrial 'poles' in Spain. Therefore, despite the undertaking given at the end of Chapter One not to use it again in this thesis, except in quoting from others, the term 'growth pole' will be used in this particular section as it applies in Spain.

2.103 Adoption of the development pole strategy in Spain began in the early 1960s. Perroux's ideas appeared to the Spanish policy makers to have the potential of enhancing the overall national industrial output.

> "It is hardly surprising that Spanish regional policy makers, many of them having received part of their training in France, should have come under the influence of Perroux and that, when the decision was taken to introduce a coherent policy for Spain in 1963-64, a development pole strategy should be one of its main props" (Richardson, 1975, p. 111).

2.104 Some of the conditions which justified the adoption of such a policy in Spain were - according to Richardson (1975) - as follows:

i In a country with limited investment resources for regional development, it is sensible to concentrate these resources at a few centres, either in those areas which have natural potential or at points where it is seen as feasible to generate economic development through the mechanism of agglomeration;

ii In a country suffering from social conservatism, growth pole strategy would spread growth mindedness into such areas; and

iii The pole policy was judged to have the potential ability to stimulate inter-regional development, so that Spanish

national industrial goals could be achieved.

2.105 Therefore, Spanish growth poles were created mainly for national aims – i.e. to enhance national industrial output – rather than for regional equity purposes. Richardson (1975) introduces two criteria which support this claim. First, the poles were selected prior to deciding upon their locational regions.

> "Selection was based on growth potential and national integration criteria, and if the pole happened to be in a lagging region this was treated as a secondary advantage" (Richardson, 1975, p.112).

Second, most of the poles' areas were occupied by large industrial complexes. This meant to Richardson (1975) that these industrial poles were much more an extension of national development and sectoral planning strategy than an instrument for developing lagging regions of the country.

2.106 The initial development poles were established early in 1964. Of the seven initial poles, two – Burgos and Huelva – were designated industrial promotion poles up to 1968, while the remaining five were designated industrial development poles.

> "Industrial promotion poles were defined as towns without much industry but with sufficient natural and human resources to justify industrial development ... The industrial development poles were intended to be towns with substantial industrial activity ..., located in low income regions characterised by heavy dependence on agriculture and out-migration ..." (Richardson, 1975, p.112).

Richardson seems to have contradicted himself when he asserted initially that all Spanish Poles were of a purely national aim, and then when he emphasised in the above quotation that the industrial development poles were located in regions characterised by out-migration. Five out of the initial seven poles were located in regions with high out-migration.

2.107 So, it seems that Spanish industrial poles were located

according to national and regional equity considerations, provided that such locations had growth potential. Clearly, it was not purely a work-to-workers policy but it was rather targeted to areas of high potential, with priorities given to problem regions which had potential for the achievement of the national industrialisation goal.

2.108 In 1969, a further four poles were designated and came into operation in the years 1970-72. Finally, in 1971, the most recent pole - Villagar Cia de Arosa - which came into being at the beginning of 1972 (Richardson 1975). The question which lends itself to discussion is: Have the seven poles which were initially created in 1964 achieved a clear success according to which the other five poles were designated between 1970 and 1972? In other words, one can hypothesise that the additional five poles were created in Spain between 1970-72 due to the clear success shown by the initial seven poles, which were created in 1964. To discuss this, Table Five highlights some consequences of the seven initial Spanish industrial poles up to 1971.

2.109 Column seven in Table Five - the autonomous investment - estimates the share of investment which would have taken place in any event. The transferred column - i.e. column 8 in Table Five - measures investments transferred from other regions, and hence gives an idea of the role played by inter-regional capital. The generated column - i.e. column 9, shows the investment share directly stimulated by the strategy of the pole. The other columns are self-explanatory.

Table Five: Spanish Poles' Statistics.

1	2	3	4	5	6	7	8	9
Huelva	1964	10580	18561	3231	3616	51.5	15.2	30.3
Seville	1964	10389	3496	9047	2466	58.0	17.0	18.8
La Corunna	1964	5862	3046	3307	366	50.0	----	46.2
Vigo	1964	4948	569	7695	895	60.5	9.3	27.9
Burgos	1964	7116	6921	9681	1018	35.7	28.6	33.3
Valladolid	1964	7021	2516	11423	594	63.2	21.1	15.8
Zaragoza	1964	6277	5276	11331	2573	54.4	11.8	30.9
Totals		52193	40385	55715	11528			

Source: Carefully developed from Richardson, 1975, p.128.

1 Pole name.
2 Earliest date of creation.
3 Investment up to the end of 1971. (M. Pesetas).
4 Investment in progress at the end of 1971 (M. Pesetas).
5 Jobs created (end of 1971).
6 Infrastructure investment (M.Pesetas): not adjusted for inflation.
7 Autonomous investment (percentage).
8 Transferred investment (percentage).
9 Generated investment (percentage).

2.110 A careful study of the statistics in Table Five, enables derivation of the following arguments:

i All statistics are related to an identical life-span – i.e. from 1964 to 1971 – and this provides for logical comparisons and aggregate evaluations;

ii The figures in columns 8 and 9 and in column 7 show that, in overall terms, the pole policy almost doubled the level of investment which could have otherwise taken place.

> "The biggest impact occurred in Burgos where almost two-thirds of investment could be traced to the pole policy " (Richardson, 1975, pp. 127-129).

Furthermore, according to Richardson (1975), this early evaluation of the pole policy was based on a survey of 396 firms. Of those, 36% stated that the prime objective of their establishment had been to invest in the development poles. Of the 199 firms which were established prior to the pole policy, 33% had no investment plans before subsidies

were introduced. Therefore, the initial Spanish poles seem to have succeeded, to a large extent, in stimulating both the creation of industries and encouraging more investment;

iii In aggregate terms, these seven initial Spanish poles created 55,517 jobs between 1964 and 1971. This in itself is an eminent achievement. However, some poles had a high share of total investments and a low share of total jobs created. For example, a total investment of 10,580 million pesetas led to the creation of 3,231 jobs in Huelva while a much lower investment of 6,277 million pesetas led to the creation of 11,331 jobs in Zaragoza (see Table Five columns 3 and 5). Due to such a weak correlation between magnitude of investment and job creation, the aim was clearly not job creation but industrial enhancement in the first place. The types of industry in Huelva, for example, might be of a capital intensive nature;

iv Column 4 in Table Five shows that investment was a continuous process in the initial Spanish poles. This demonstrates the importance of continuous fostering in stimulating development in industrial areas. It seems that further success has been shown by those poles due to the late injections of investment shown in column 4, Table Five; and

v The total infrastructure investment was equivalent to nearly 12% of the aggregate investment in the poles. (detailed in Column 6, Table Five). This was probably an important approach to improving the polarising ability of the poles.

2.111 Researching the impacts of the policy from another angle, Table Six shows the movement of population in Spain before and during the era of the initial seven poles.

Table Six: Population of the Seven Original Spanish Poles and their Provinces.

Pole and Province	Population 000 in 1950	1960	1970
Burgos	471	463	478
La Corunna	1109	1189	1216
Huelva	436	481	503
Seville	1523	1735	1954
Valladolid	472	515	649
Vigo	819	834	958
Zaragoza	886	983	1240
Totals	5715	6200	6999

Source: Carefully developed from Richardson (1975, p. 130, Table 6-6).

> "The pole benefits did not begin until halfway through the 1960s" (Richardson, 1975, p. 130).

Bearing this in mind, the poles witnessed a higher population growth rate between 1960 and 1970 than the rate between 1950 and 1960, except in the two cases of La Corunna and Huelva (see Table Six). This demonstrates the Myrdal's backwash mechanisms which work in favour of concentated industries.

2.112 It seems that the population increase at the poles and their provinces had a casual relationship with the number of jobs created in each pole. To elaborate on that, Zaragoza and Valladolid – for example – witnessed the comparably highest population growth rates between 1960 and 1970 (see Table Six). Simultaneously, column 5 (in Table Five) shows that these two poles had the largest individual and aggregate shares in total jobs created by all seven poles. This suggests that the increase in the population of the poles was mainly due to migration. However, the gain of the poles in terms of population was at the expense of the agricultural rural areas (Richardson 1975).

2.113 Up till now, we have found that the pole policy – represented

by the original seven poles up to 1971 – succeeded in Spain in terms of polarising population, investment and creating jobs. Does that imply an absolute success for the original seven poles in Spain? For a fair assessment, we have to judge whether or not these poles achieved their main previously stated objective – i.e. enhancement of industrial output.

2.114 Although the statistics provided by Richardson (1975) – refer to Table Five – demonstrate clearly that conditions of industrial investment and job creation in the pole areas are much better with the poles than they would have been without them, Butler (1975) argues that only a total of 3% of the gross value creation of total Spanish industry in 1971 was produced by the pole area industries. He continued arguing that, in the national scale of things, the poles are therefore of minor importance. Furthermore, Richardson (1975) argues that the jobs created by the poles up to 1971 (55,715 jobs, refer to Table Five, Column 5) employ the equivalent of little more than 3% of the population of the pole cities, or less than one half of 1% of the national labour force. Besides that, the annual rate of job increase at the pole was 7,000 per annum, while the annual rundown in agricultural employment was 110,000 per annum. Richardson (1975) primarily blamed the pole policy for this.

2.115 According to the above, the Spanish original poles have not led to a clear national success. On the other hand, they had negative impacts on rural agricultural areas. Therefore, despite its success in terms of polarisation, the pole policy did not show a clear success either in terms of enhancing the Spanish industrial output or spreading benefits to the surrounding areas. On the contrary, as argued above, their polarisation success was mainly at

the expense of the rural agricultural areas.

2.116 Finally, it will assist in our investigation to list the difficulties which faced the initial seven poles, without which they might have shown better results. Such difficulties and mistakes were as follows:

i In the first plan, duration of the poles was limited to, first, five and, later, ten years.

> "The attraction of industrial firms to specific locations, the provision of infrastructures, the gestation period for industrial plant, the secondary attraction of supplying firms, the generation of urbanisation and other agglomeration economies, the spread of hinterland effects, the creation of conditions for self-sustained regional development - changes of this kind cannot be brought about rapidly". (Richardson, 1975, p. 117).

The original seven poles in Spain were created in 1963-64 and were planned for incentives and subsidies up to 1974. Such a period might not be long enough for a policy to stimulate the mechanisms specified above, nor to erode the obstacle of social conservatism against industrialisation. If the duration was longer, more enterprises which had planned to function for longer periods could have been created and hence the results of the policy as a whole could have been better;

ii Subsidies were offered at the initial rather than at the operational stage.

> " ... There are signs that some of the enterprises are facing self-financing problems after the initial subsidy period". (Richardson, 1975, p. 137).

It seems that better results could have been achieved if subsidies and incentives had been spread throughout the lifespan of the enterprises. This could have saved some enterprises from closure due to bankruptcy;

iii Many firms who located in the poles gave inadequate attention

to market conditions and the viability of their product. Eventually, they discovered that market conditions did not compensate for production costs. This led to a large number of closures - especially among the few small enterprises which were not linked to demands in local markets;

iv Industrial expansion has also been slowed down by "infrastructure bottlenecks" (Richardson, 1975, p. 137). The generous infrastructure investment shown by Table Five was spent in the Poles' initial stages. If more infrastructure investment had been spent in between times, expansion of existing industries and polarisation of more industries could have been better stimulated; and

v Last, but by no means least, the initial seven Spanish poles faced the obstacle of social conservatism in the initial stages. However, growth mindedness spread gradually and was responsible for massive migration from rural agricultural areas to the poles (i.e. sectoral shifts). Meanwhile, the poles were not associated with training programmes which would have qualified some of those rural migrants for jobs in the poles. Therefore, those rural migrants left their jobs in agriculture and came to the pole areas where they stayed mostly unemployed. In the main, the poles' technical labour came from large areas of an urban nature.

2.117 Having studied experience of concentrations in some developed countries, it seems important to study similar experiences in some developing countries. This will be of use later in the extraction of study issues for the future of policy in Saudi Arabia. This will be elaborated upon in the next sections.

APPLICATION OF POLICY IN SOME DEVELOPING COUNTRIES.

2.118 Many developing countries intentionally or blindly borrowed the concepts of Francois Perroux and applied them as policies for purposes such as overcoming regional disparities and/or improving national industrial output. This section aims to examine the experience of concentration in some developing countries so that study issues can be better explained for the future of policy in Saudi Arabia.

2.119 Concentration policies have been applied in developing countries for different aims. Korea, for example, adopted the policy for the purpose of minimising congestion problems and over-concentration of manufacturing in Seoul – the capital city – so that regional disparities could be made less acute (Kim in Lo 1978). The policy was adopted in Nigeria for, in the first instance, attracting firms to concentration for economic advantages, secondly, to overcome the problem of high land costs which was facing individual investors, and thirdly, to reduce the cost of development infrastructure to individual indigenous and foreign investors. Clearly, the policy was applied in Nigeria to enhance national industrial output rather than for regional equity purposes – i.e. similar aims to the policy in Spain. (Mabogunje, in Kuklinski 1978). In India, the policy was adopted primarily for achieving balanced regional growth (Mathur in Lo 1978). Furthermore, the policy has been applied in countries like Algeria, Tunisia, Iran and many others. However, due to the absence of substantive references which would enable the evaluation of policy performance in a large number of developing countries, only the experiences of Nigeria, Korea and India will be highlighted in the next few paragraphs.

2.120 The policy has been implemented in Korea through the designation of five main regions, namely, The Southern Coastal Industrial Areas; the South; the Pusan Region; the Seoul Region; and the Middle Region. Industrial estates have been established in all these regions, except for the congested city of Seoul. The criteria used for selection of the locations for industrial estates are not clearly explained. However, Kim (in Lo 1978) mentions that the Southern Coastal Area was chosen as a special industrial area for three reasons: first, it is suitable for building large ports for the import of raw materials from abroad and exporting processed goods; second, the area is accessible to Japan – a big market; and third, the area contains large cities which could be counter poles to the city of Seoul. Assuming that criteria used in selecting the other industrial areas in Korea were of a similar nature, potential for future growth and development – implying suitability of land form, availablity of raw materials, accessibilty to efficient markets, ... etc. – seems to have been one of the main factors considered in selecting the Korean industrial areas.

2.121 The policy was implemented in Nigeria through the designation of sixteen urban centres. In each of them, with Greater Lagos, the capital city, as the largest, industrial estates have been built by the Nigerian Regional Councils. According to Mabogunje (in Kuklinski 1978), Nigeria has never considered the reduction of regional disparities in the country. The policies were of purely sectoral-economic nature rather than of spatio-economic. Greater Lagos alone accounted for about 40% of the gross output, 30% of the total employment and 30% of the total number of industrial establishments in Nigeria (Mabogunje, in Kuklinski 1978). Despite that, the policy advocated concentration of industries in urban

centres – including the congested Greater Lagos itself. Accordingly, regional disparities continued to increase with rural Nigeria suffering most.

2.122 In India, the rapid increase in aggregate population intensified the general economic problems and regional disparities. Mathur (in Lo 1978) estimates that by the year 2000 India's population is expected to exceed nine hundred million. To highlight regional disparities in India, Mathur continued reporting that of the total manufacturing workforce 49.4% are concentrated in the four relatively industrialised cities of Gujarat, Maharashtra, Tamil Nadu and West Bengal. On the other hand, these four states account for only 29.7% of the total population in India (Mathur, in Lo 1978). In order to minimise regional disparities, the Indian Government built estates in the backward and depressed regions. The aims set for these industrial estates collectively were: first, to encourage industrialisation in backward and depressed regions; second, to strengthen and develop the base of small towns and rural areas; and third, to cut down concentration of population and manufacturing in large metropolitan areas, and hence to promote decentralisation (Mathur, in Lo 1978).

2.123 Two questions lend themselves to discussion: first, what kind of supporting policies have been adopted by these countries in order to attract manufacturing industries to the designated growth centres and industrial estates? second, have these policies succeeded in the three countries? In terms of the first question, Korea built industrial estates and provided in them a wide range of infrastructure services. This was the most important tool by which the Korean Government influenced the location of industries. (Kim in Lo 1978). Kim continues mentioning that tax incentives and

subsidies are the second major policy employed by the Korean Government in order to move firms from Seoul and other industrial areas towards the industrial estates. Industries leaving Seoul and relocating in the industrial estates are exempted from income and corporation taxes. On the other hand, high acquisition and registration taxes are levied on any new factory locating in Seoul. The levy, according to Kim (in Lo 1978), is as much as five times the normal one.

2.124 In Nigeria the industrial estates built in the sixteen urban centres have been equipped with a wide range of facilities – such as banks, housing plots for workers and executives, electricity, water supply, sanitation disposal system and other amenities, rail sidings and goods access roads. (Mobogunje, in Kuklinski, 1978). The intention was to stimulate the creation of industries in urban areas. Most of the industrial estates were located in close proximity to ports, from where their imported raw materials could be easily distributed. An important point to notice here is that there has been no financial incentive policy accompanying the industrial estates policy in Nigeria.

2.125 In India, the 440 industrial estates established in backward and depressed regions have been equipped with all the required facilities – costing 500 million rupees. A range of incentives and subsidies were offered in favour of firms locating in any of the industrial estates – e.g. loans and a subsidy equivalent to 15% of the initial capital cost (Mathur, in Lo, 1978).

2.126 In terms of the previously stated second question, which conjectures on whether or not the policy has succeeded in these three countries, share of the total Korean manufacturing output in the city of Seoul has decreased appreciably since the adoption of

the policy. Bearing in mind that the policy was introduced in Korea in 1962, the share of the city of Seoul in the total manufacturing enterprises in the Seoul region decreased from 76.4% in 1963 to 70.9% in 1972. Kim (in Lo 1978) attributed this decrease mainly to the policy of industrial estates. Heavy industries such as chemicals and steel - which are heavily dependent on semi-processed raw materials - moved to concentrate in the Southern Coastal Industrial Areas: most of them moved from the city of Seoul. Nevertheless, the consumption-oriented goods and tertiary industries continued to be concentrated in Seoul. Therefore, in general, the policy achieved some success in slowing down the manufacturing growth rate in Seoul but never succeeded in bringing it to an end. In terms of spreading benefits to the surrounding areas, the Korean industrial estates have not demonstrated any success. Mostly, they are developed self-contained cells in run-down urban areas. (Kim, in Lo 1978).

2.127 The statistics analysed by Mabogunje (in Kuklinski 1978) show weak backward and forward linkages between the Nigerian industries and the section which engages the highest proportion of manpower: agriculture. To understand this, backward linkage is defined as the ratio of inputs from other sectors to total output. The forward linkage is the ratio of sales to other sectors to total sales (Mabogunje in Kukinski, 1978). This argument, as well as others suggested by the statistics analysed by Mabogunje, suggest failure of the Nigerian industrial estates in terms of spreading functional benefits to other sectors and a lessening of the ability to stimulate the maximisation of national industrial output: the aim which those industrial estates were established to achieve.

2.128 Mathur (in Lo 1978) stated that, by all accounts, the industrial estates as an approach to tackling regional disparities were a failure. The share of the Indian cities (with a population of more than 100,000) in total industries rose from 25.64% in 1963 to 43.04% in 1973. On the other hand, the share of backward and depressed towns (with a population of less than 100,000) declined from 22.77% in 1963 to 20.23% in 1973. As previously stated, subsidy and incentive policies were meant to favour the backward and depressed areas over the same period. (Mathur, in Lo 1978). Thus, the policy has not succeeded in attracting industries from the large urban areas to the depressed and backward regions. Furthermore, the number of large urban areas in total manufacturing enterprises in India kept increasing. This is a clear failure of the 440 industrial estates and their incentive policies in the depressed and backward regions in India. Factors like marketing conditions and availability of raw materials and skilled labour might have worked in favour of the large urban areas in India.

2.129 Why have concentration policies not shown better results in these three countries? Some problems and mistakes have accompanied formulation and implemention of policies without which better results could have been obtained in these three countries. Kim (in Lo 1978) uses Ulsan city as a typical growth area to generalise the difficulties faced by the concentrated industries in Korea. Some of these difficulties and mistakes are as follows:

i Most of the industrial plants located in rural areas have their headquarters in more centralised areas. Their employees are mainly skilled workers from larger urban centres. Their products are usually transported to urban areas - where demand levels can justify high prices.

Consequently, benefits are spread up the hierarchy of urban centres rather than centrifugally to the surrounding areas. Therefore, the policy failed to overcome regional disparities, and the growth of Seoul in terms of population and market continued – although at a lower rate;

ii Most of the petro-chemical raw materials were imported from overseas. This led to two negative impacts: first, prices of such products inside Korea became causally linked to the prices in the countries from which they are imported; and second, this important sector of Korean industry is not linked with local activities and materials. Therefore, the Korean industrial estates have failed to spread benefits in such a way that local activities could be developed and/or local materials utilised;

iii Almost all the Korean industrial estates have not been implemented in the context of the comprehensive urban planning and development programmes. Consequently, urban development has lagged behind industrial development in Korea. The weak spread mechanisms shown by the Korean industrial estates intensified this problem; and

iv The large Southern Coastal Industrial Area is occupied by large heavy industrial complexes which spread benefits to overseas countries – from which raw materials are imported and to which most of their products are exported – and to Seoul, where some manufactured products are sold. The other backward and depressed areas have not benefitted from such economic cycles.

2.130 In Nigeria, according to Mabogunje (in Kuklinski, 1978), the policy suffered from several problems and mistakes such as:

i The ambiguity of the objectives of the industrial estates established in the sixteen Nigerian urban centres led to a failure in terms of adopting proper supportive policies. It is not clear whether the industrial estates are there only to contribute to the enhancement of the national industrial output or to influence the spatial distribution of industries as well. Clearly, ambiguity of objectives have made continuous assessment of policy consequences, and hence policy monitoring, a difficult task to carry out in Nigeria;

ii Despite growing agricultural activities and the availability of some raw materials, all industries tended to import semi-processed raw materials from abroad. Like Korea, this led to weak backward and forward linkages with local activities, raw materials and other indigenous sectors; and

iii Concentrating industrial estates in the sixteen urban centres – with the congested Greater Lagos as the largest one – at a time of aggressively increasing regional disparities was perhaps the wrong policy at the wrong time. Massive rural-urban migration consequently occurred. The losers were the rural areas and their agricultural pursuits.

2.131 The 440 industrial estates in the backward and depressed regions of India have failed collectively, as previously mentioned, in pulling population and industries from large pressurised urban areas. According to Mathur (in Lo 1978), some of the factors blamed for the failure are:

i Industries were mainly of a capital intensive nature. Therefore they had little to offer for curing the high unemployment levels in India in general, and the backward and depressed rural areas in particular;

ii As in Korea, the Indian industrial estates were not elements in comprehensive regional spatio-economic plans. Thus weak linkages with local activities led to a weak spread of benefits to surrounding areas;

iii Some national policies contradicted the policy of industrial estates as a means of overcoming regional disparities. For example, the national policy of price equalisation throughout India encouraged industries to locate in urban areas, where they could make profits under such circumstances in the only way possible - selling more; and

iv The financial incentives provided were not generously biased in favour of the rural depressed regions, where most of the Indian industrial estates were located. Furthermore, no economic burdens and levies were put on industries locating in urban areas. Consequently, urban areas continued to attract more industries and population.

2.132 In conclusion, the policy has achieved little success in Korea and clearly failed in India and Nigeria. In all three cases, the polarisation mechanism was causally related to generosity of incentives while the trickling-down mechanism of concentrated industries was almost negligible. However, weak linkages between industries, local activities and raw materials, lack of skilled labour (especially in rural areas) and lack of comprehensive approaches to urban and industrial development are some of the common problems.

2.133 The next section will analyse summaries which were accessed during the on-line computer search. In doing so, the next section will provide more issues in addition to the above and other studies made in Chapter Two which will facilitate the extraction later, of

study issues on the future of policy in Saudi Arabia.

REVIEW OF SUMMARIES

2.134 In January 1988, an on-line computer search was carried out for literature which tackled issues regarding the application and performance of growth centre policy. The search was made for the key words 'Industrial Estate', 'Growth Centre', 'Central Place', and 'Growth Pole'. The search was aimed at finding a quick and general access to literature which might provide conclusive statements on experiences of such policies in various countries, and hence broaden the range of issue extraction which will take place later in the course of this chapter. This section is, however, aimed at selected summaries. For this purpose, this section will comprise three sub-sections. The first and second will provide summaries on experiences of policy in Kenya and Malaysia, respectively: the summaries available on these two cases are extensive enough to justify a sub-section for each. The third sub-section will provide summaries concerning fragmented locations and issues: i.e. miscellaneous cases.

SUMMARIES ON THE KENYAN EXPERIENCE

2.135 Reinhard (1979) studied three Kenyan districts as a model region for Kenya: namely, Bungoma, Trans Nzoia and West Pokot.

> "They represent the most important spatial types of the country: an area ... , characterised primarily by smallholder subsistance agriculture, a part of the former 'White Highlands' with European-style large-scale farming, and a semi-arid area characterised by semi-nomadic husbandry". (Reinhard 1979).

2.136 The results of the study led Reinhard to call for new proposals for regional planning in Kenya, namely:

> "Apart from a decentralisation on the national level, a concentration of services in intermediate and minor centres which should form a three-level hierarchy is most urgently needed".

Furthermore, the study believed in the necessity of applying the central place concept in the Kenyan regional policy as a prerequisite for the development of growth centres. (Reinhard 1979).

2.137 Vorlaufer (1986) argues that policies of concentration have been applied in Kenya since the late 1960s. The Kenyan Industrial Estates (KIE) were established in the main urban areas. In 1971, the KIE 'inaugurated' the Rural Industrial Development Programmes which promoted small industrial units - even when these were located outwith the Rural Industrial Development Centres, established throughout the whole country. The summary does not make clear whether the approach of allowing industries to develop away from centres had negative impacts on the performance of the centrally concentrated industries in Kenya. However, two important aspects on the performance of the KIE are introduced by Vorlaufer (1986), as follows:

i "In spite of substantial financial and technical aid from various foreign countries, the concept of promoting modern industries showed only limited success in the industrial estates located in the medium sized towns".

Setting aside the implicit meaning of the word "modern" in the context of the above quotation, one can argue that availability of some vital factors of production (i.e. labour, demand, market, ... etc.) tend to be in favour of urban areas. Therefore, large industries tend to be more effective in large towns and cities where they can benefit from conditions of economies of scale. However, the summary

is not extensive enough to tell whether or not "Modern" industries are succeeding in the Kenyan cities; and

11 Surprisingly, the summary argues that most of the projects promoted by the KIE which turned out to be successful, in their operations and ability to both grow and spread benefits to surrounding areas, were located in rural areas. In specifying the nature of such projects, Vorlaufer (1986) wrote:

> " ... Especially the small handicraft industries enjoy important locational advantages: local inputs, simple technology, and a local market protected by its peripheral location".

This emphasises the advantage of having industries linked to local activities and potentials. In such a case, local labour, activities, potentials and raw materials can be utilised. Consequently, benefits can be spread by such industries to the surrounding area, in exchange for relatively cheap local materials and perhaps lower wages.

2.138 Vorlaufer (1986) concludes by offering a general assessment for the Kenyan Industrial Estates (KIE), saying:

> "In general the results of the KIE's work have been disappointing. The lack of modern management ability appears to be the main reason for the failure".

Although the term "management" is a general and implicit one in this argument it is an important issue to consider: among its broad meanings, it may include proper scheduling for the provision of facilities, providing loans and incentives, providing for co-operation and functional linkages among industries, regulating the quality and quantity of production according to market conditions and operational management within each industry. However, such phrases as co-ordination, co-operation and adjustment with market

are probably vital issues for the success and development of individual and groupings of industries, although probably not strategic issues.

2.139 Building on his studies, Vorlaufer (1986) finally proposed an approach for the future of industry in Kenya. He said:

> "It appears more promising to concentrate future promotion on small artisan enterprises located in small central places in rural areas".

However, the success of the handicraft industries in rural Kenya may not imply a similar success for other types of rural industry. In other words, local activities, potentials, market conditions and labour may not help many other industries to succeed in rural Kenya as they have done for the handicraft industries.

SUMMARIES ON THE MALAYSIAN EXPERIENCE

2.140 Referring to Malaysia and generalising in some cases, Choo (1981) wrote that developing countries such as Malaysia attempt to industrialise quickly by resorting to permitting the participation of foreign firms. He described the problem as:

> "These firms, however, have generated very little impact on the producton activities of domestic firms because the foreign firms form their own enclaves of interaction within or between their own organisation". (Choo 1981).

2.141 As a solution for such a problem in Malaysia, Choo suggested that:

> "If we consider linkages between foreign and local firms of strategic importance for developing the domestic industrial sector of a developing country, then we should devise a system of incentives and measures, including the industrial estate programme, whereby the participation of local firms in the stream of industrial development can be encouraged, either independently or in conjunction with foreign-owned industrial sectors". (Choo 1981).

It is probably accepted that incentive policies could partially

succeed in influencing locational decisions of some newly establishing and/or relocating firms. What is unclear in relation to the above quotation is whether or not the incentive policy proposed by the study would be able (e.g. generous enough) to stimulate the creation of enterprises from scratch. However, a large number of industrial estates have already been established in Malaysia for the purpose of achieving rapid industrialisation, mainly through stimulating the creation of industries from scratch.

2.142 Setting aside the number of local firms in total industries in Malaysia, Abdullah (1984) used a data matrix of 40 industrial estates and 15 of their characteristics in his study. He found that the economically successful industrial estates are mainly located in or close to major urban centres on the West coast of Peninsular Malaysia. This indicates that conditions for industrial development are probably better satisfied in urban Malaysia.

SUMMARIES ON MISCELLANEOUS CASES AND RELATED ISSUES

2.143 This sub-section introduces other summaries which did not fit either of the above two categories. None of them is extensive enough to justify devoting a whole sub-section to it. Therefore, they may appear random in this sub-section; nevertheless, they are potentially valuable for future studies.

2.144 The on-line search provided a summary of a pragmatic study on Namibia, carried out by Bahr (1984). The study found that smaller central places in Namibia have disappeared due to their inability to sustain and retain enterprises, population and functions. Describing the state of affairs in Namibia over the period 1979-82, Bahr (1984) wrote:

> "The bigger places, especially Windhoek, have grown disproportionately; medium places have stagnated; small

> places have disappeared ... ; rural population has declined".

Although this can be understood in the context of the urbanisation process in Namibia the rural areas were unable to retain their population and economic functions, mainly due to the polarisation mechanisms which should have worked in favour of larger urban areas. This could have been made less acute through public intervention in favour of rural areas.

2.145 Another summary points to a study carried out by Spielman (1980). It comments on the comprehensive adoption of the central place concept in Guatemala during the mid 1970s. It argues that the free market regulatory concepts of threshold and range of goods should be the factors most considered in determining the location of goods and services in Guatemala.

> "The development and improvement of the central place model should be oriented by the 'marketing principle' and not by the 'transportation principle'. (Spielman 1980).

In doing so, the study believes that it is more efficient when goods and services are spatially distributed according to Christaller's threshold and range measures: this, according to the study, will enable urban centres to appear better functionally-linked, and can, on the other hand, enable better control over urban development and expansion.

2.146 One of the most important summaries from the on-line search is attributed to Gafton (1984). It reports that a network of small-scale growth centres has been chosen as the major spatial component in rural development planning in Alpine Switzerland. The justification for such an approach, as introduced by Gafton (1984), is as follows:

> "Analysis of socio-economic change within an Alpine Planning Region for the period 1970-80 indicates that,

> although the fund is important in terms of welfare provision, it has not led to relative improvement in the economic structure of the most remote areas".

Consequently, the proposed network of small-scale growth centres was deemed to be an efficient policy for ensuring better utilisation of public utilities and community facilities and simultaneously for industrial development in rural Switzerland. The summary is not extensive enough to describe the types of industries introduced by such small-scale growth centres, nor does it speculate on their anticipated performance. However, the ability of concentrated industries to stimulate economic development in rural areas seems to be well regarded in Switzerland.

2.147 Another aspect shown by the computer search is the continuous call for application of the 'growth pole' concept, despite the terminology's weak linkages with geographical space. For example, Hennings, Jenssen and Kunzmann (1981) call for the adoption of what they call 'a relief pole' as a development strategy for Cairo in Egypt. According to them, such a 'relief pole' should provide for industrial development, banking, and other services outwith the boundaries of Cairo. They believe that some of the economic and demographic pressures imposed on Cairo would be absorbed by such a 'relief pole'. However, their ideas might be influenced by the 'Metropoles' policies applied in France, as a means of minimising the growth pressure occurring in Paris. It is worthwhile stating that there are no clearly demonstrated proofs of absolute success of France's Metropoles in absorbing some of the growth pressures occurring in Paris. Conversely, Allen (1980) demonstrates that the growth of the metropoles were more at the expense of rural France than of Paris. Although conditions may not be exactly comparable,

this may cast some doubt on the potential effectiveness of the proposed 'relief pole' in solving the problems of Cairo: can this not be at the expense of rural Egypt as was the case in France?

2.148 The Russian authors Lavvor, Sdasyuk, Kundu and Prakash (1982) studied application of the Western 'growth pole model' in some developing countries such as India, Brazil and Nigeria. They concluded that the 'growth pole' strategy needs modification to suit the conditions in the developing countries and that the USSR has valuable experience of the problems of regional development. Unfortunately, up-to-date references which could describe the applied spatio-economic policies in the USSR are not available in English. However, it is accepted that policies should not be imported from the West and blindly applied to a developing country which may have significantly different economic social and/or other features. The question is: In the case of borrowing policies direct (i.e. non modified) from the USSR, will results be any better in developing countries?

2.149 The final potentially useful summary concerns the role of technology in affecting number, pattern, size and distribution of settlements in Austria. Bobek and Fesl (1978) concluded that:

> "Most old towns and markets still have central importance. In modern times, industry, railways and administration have played a decisive role. New centres arose in the nineteenth century – but none rose to a high rank of centrality".

2.150 In conclusion, this section examines summaries of a large number of cases, accessed via the on-line computer search. Briefly, the summaries explain the wide call for the application of central place and growth centre concepts in regional policy in various countries. Application of central place policy is seen as a prerequisite for strong growth centres in rural Alpine

Switzerland. In Guatemala, there is a need for allowing market principles to independently regulate the structure of central places. Studies on Malaysia call for the creation of domestic firms to take advantage of the interaction with foreign firms. However, the most successful Malaysian industrial estates are found to be in, or in close proximity to, urban centres. Conversely, the Kenyan rural handicraft-related industries showed successful performance, in terms of growth and spread of benefits to their surrounding areas. Factors like availability of labour, local materials and viable market conditions (with negligible competition) were among the main catalysts for such success. Finally, the experience of Namibia shows how small rural centres disappear due to their inability to retain enterprises and population in the face of the comparatively great urban polarisation (or backwash) mechanisms.

2.151 Having studied experience of growth centre policy in various developed and developing countries, Chapter Three will briefly attempt to answer the question: Is growth centre policy successful?, and extract study issues for the future of policy in Saudi Arabia.

CHAPTER THREE: ISSUES FOR THE FUTURE OF POLICY IN SAUDI ARABIA

3.01 *As mentioned above, this chapter will utilize the studies made in Chapter Two to fulfill two purposes: first, to answer the question 'Is growth centre policy successful?', and second, to extract, disaggregate and filter study issues that wil help in speculating about the potential viability of the proposed regional policy in Saudi Arabia.*

IS GROWTH CENTRE POLICY SUCCESSFUL?

3.02 In view of the importance of this question for some later studies in this thesis, answering it here could show at least two kinds of ambiguity. First, the experiences studied (in Chapter Two) applied the policy for non-comparable, or sometimes for not clearly-stated, aims. Second, different countries have different social, (e.g. labour) and economic (e.g. capital, raw materials, incentives) conditions. This questions the validity of directly comparing the consequences of policy for the purpose of arriving at a satisfactory and common answer to the above extremely important question. Nevertheless, a satisfactory answer will be attempted.

3.03 The policy in Saudi Arabia is proposed primarily to help spatio-economic development in the backward regions. As will be thoroughly discussed in Part Two, the proposed centres are deemed capable of polarising and stimulating the creation of enterprises from scratch and spreading benefits to their surrounding backward areas. Therefore, in order to ensure that answering the above question will be more useful for later evaluation purposes, it will be looked at from the following viewpoint: Are growth centres actually and potentially capable of polarising enterprises and spreading benefits to their geographical surroundings?

3.04 Setting aside differences in policy aims, in almost all the studied industrial centres (Chapter Two), polarisation of centres has reflected the generosity of concentrated incentives. Clearly, centres have shown better polarisation in the developed (Britain, Spain, Norway) than in the developing (Korea, Nigeria, India) countries. The same argument may be used on the ability of centres to stimulate the creation of enterprises from scratch, although without substantial evidence. On the other hand, however, almost all those centres (both in developed and developing countries) have shown negligible ability to spread benefits to their surrounding areas. On the contrary, they have been accused of negatively influencing their geographical surroundings: e.g. it is argued that the British EZs polarised enterprises which could otherwise have stimulated spatio-economic development in other parts of the same regions; the Korean Industrial Estates have mostly remained developed cells within deteriorating built-up environments; the Spanish poles polarised the rural labour force and hence negatively influenced agricultural activities and jobs.

3.05 Theorists recognised that the ability of centres to spread benefits is outweighed by their ability to polarise enterprises and other factors of production. However, they observed that the former was a real one and used to occur in consequence of the latter. This probably encouraged some countries to apply this approach to industrial development in the context of their attempts to help backward and/or disadvantaged areas. The question now is: Is the spread of benefits to surrounding areas a real mechanism of concentrated industries? If yes, then why have almost all the studied experiences (with a single exception - as will be highlighted shortly) shown either negligible or only negative

impacts on their geographical surroundings?

3.06 The groupings of industries which were independently observed by Perroux (1955) by Myrdal (1957) and by Hirschmann (1958) were characterisd by the following:

i Their creation was solely stimulated and regulated by free market conditions. Therefore, they established in areas with an abundance of natural endowments (as Perroux put it) where they had easy access to reliable labour, raw materials and markets. Because their creation was – as mentioned above – solely regulated by free market conditions, they individually established in response to market demands. In this sense, competition should have been negligible, (i.e. demand in close markets was the only stimulant for supply under such free market conditions);

ii The only incentive for those industries to concentrate voluntarily around each other was the advantage of proximity to functionally-linked industries. Such conditions stimulated benefits of external economies which were led by the role of Perroux's propulsive industry; and

iii Having the concentrated industries functionally-linked with local raw materials, labour, capital, land, market and other factors of production increased the number of channels via which benefits were distinguishably spread and/or trickled down to the surrounding geographical areas of the centres, as independently observed by the three theorists mentioned above.

Therefore, the potential ability of centres to spread benefits to surrounding areas is always there, provided that concentrated industries are functionally-linked not only with each other but

with local factors of production as well : the channels via which benefits can be spread.

3.07 Probably in most of the artificial industrial centres of today and the recent past, the above conditions and implicit requirements have not been satisfactorily fulfilled and accordingly results have not been comparable to those of the centres initially observed by the above mentioned theorists. At least three deviations from the growth centre theory's assumptions are distinguishable in the contemporary approaches to industrial concentrations:

i As argued above, in most of the artificial centres of today and the recent past, polarisation has reflected the generosity of the concentrated incentives. The advantages of proximity to functionally-linked industries has become negligible for the purpose of stimulating concentrations. This almost relaxed the mechanisms of external economies which were led by the roles of Perroux's propulsive industry in the earlier observed centres;

ii Incentives (rather than solely market conditions) have become the prime factors in stimulating the creation of enterprise. This increased competition in the face of probably inelastic demand. For example, vulnerability of enterprises which had not paid serious attention to market conditions at their inception (the time of generous financial incentives) was noticeable in the Spanish poles. Likewise, industries in the Norwegian local growth centres remained heavily reliant on government subsidies and incentives, without which they would have closed down; and

iii Technological advancements (refer to Chapter One) made it

possible for industries to rely on factors of production (labour, capital, raw materials, markets) which are partially or totally located away from the areas in which such industries locate: e.g. the Korean Rural Industrial Estates employ skilled labour from major cities; the Nigerian Estates industries are not linked with the flourishing agricultural sector which employs a high proportion of the labour force. As mentioned above, the theory of growth centre recognised linkages with local factors of production channels via which benefits are centrifugally spread. Therefore, it is likely that benefits are really spread by the above mentioned centres but to places where such channels terminate: i.e. to places from where such factors of production are bought.

3.08 The Kenyan Rural Industrial Estates is the only case, from all the studied experiences in Chapter Two, which has been shown to be effective in the centrifugal spread of benefits: they comprise mostly handicraft industries which are functionally-linked with each other (stimulation for the external economies and propulsive industry mechanisms), with local materials as well as with the activities of local society (linkages with local factors of production) (Varlaufer, 1986, refer to P. 2.137). Clearly, these partially satisfy the above implicit conditions and requirements implied by the growth centre theory.

3.09 *To sum up, it seems desirable to have the concentrated industries functionally-linked with each other as well as with local factors of production and activities, in order to stimulate not only industrial growth (through the role of the propulsive industries) but also effective centrifugal spread of benefits and, therefore, effective spatio-economic development of surrounding*

areas. In such a case, however, there would be a trade-off between impacts of centres on GDP as a whole and on local social equity conditions. If we allowed only functionally-linked industries to concentrate in artificial centres, such centres would not show comparatively great polarisation, but would better spread benefits in a better way to the surrounding areas, provided that they would also be linked to local factors of production. This would better stimulate spatio-economic development of the surounding areas. If, on the other hand, we allowed all types of non-functionally linked industries to be created and polarised by such artificial centres, this could provide a better contribution to GDP (despite the missed mechanisms of external economies and propulsive industry) but would do so at the expense of greater ability to spread benefits and hence to stimulate spatio-economic development of surrounding areas: this would intensify if industries were not functionally-linked with local factors of production. Where to draw the line between these possibilities and trade-offs? Which one should be adhered to at the expense of the other: growth of the GNP or spatio-economic development and hence social equity in the surrounding areas? The answer depends very heavily on the case concerned: for growth of GNP only? for social equity only? or for compromise? A rule-of-thumb regarding this is that the more industries become functionally-linked with each other as well as local factors of production, the more they can continue to function, grow and spread benefits to their surroundings.

3.10 Having studied various experiences and discovered something about potential viability of growth centre policy as an approach to spatio-economic development, the next section will extract study issues from these experiences and theories for the future of policy

in Saudi Arabia.

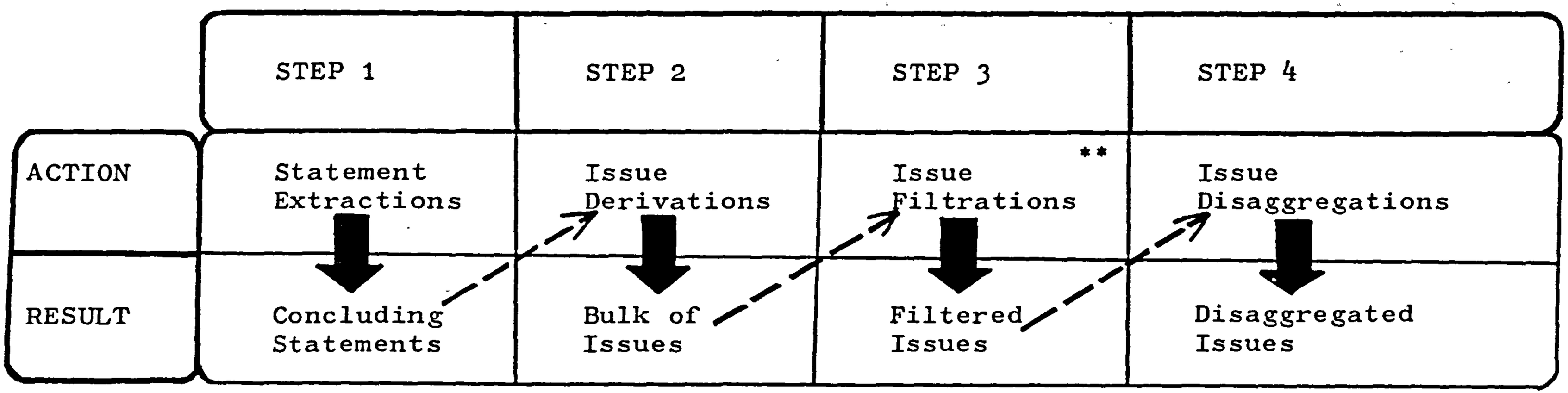
ISSUES FOR THE FUTURE OF POLICY IN SAUDI ARABIA

3.11 As illustrated in the introduction (see Figure One, The Introduction), issues - rather than direct lessons - will be extracted from the studied experiences for consideration from Saudi perspectives. These studies will be utilised in investigating the potential viability of the proposed hierarchy of centres in Saudi Arabia: the aim of this research.

3.12 Having studied in Chapter Two the experience of similar policies in various countries, this section aims at concluding with precisely spotlighted issues which will be objectively or subjectively studied from Saudi perspectives, in the context of the second part of this thesis. To aid the achievement of this, Figure One outlines the methodology.

3.13 Figure One sets out steps of action and consequent results as an approach to finding study issues for the policy in Saudi Arabia. The first step proposes searching through the experiences previously studied and extracting from them concluding statements which could provide vital facts about application and/or performance of policy . The second step will be the actual derivation of study issues from the previously extracted concluding statements. Not all of the derived issues will be objectively studied but only those which pass the filtering questionnaire: step three will deal with such issue filtration. The filtered issues will then be disaggregated (in step four) into various disciplines for both systematic study and smooth matching with the multi-disciplined aims, for the achievement of which the policy is proposed in Saudi Arabia.

Figure One : A Regulatory Model For Extraction of Study-Issues For the Future of Policy In Saudi Arabia



Input

Direction of Result

** Detailed in Figure Two

3.14 Therefore, we are talking about four steps with four respective actions (statement extraction; issue derivation; issue filtration and issue disaggregation), which will lead to four respective results (concluding statements; bulk of random study issues; random but filtered study issues; and disaggregated study issues). (See Figure One). The result of the action of each step will be given in the next four sub-sections.

STEP ONE: STATEMENT EXTRACTIONS

3.15 This sub-section extracts concluding statements from each of the studied experiences which give facts about application and/or performance of policy in each of the cases referred to. These statements will enable later derivation of issues which may be studied in order to evaluate the potential viability of the proposed hierarchy of growth and development service centres in Saudi Arabia.

3.16 The study made on experience of the policy in Norway suggests – for our immediate purposes – the following conclusions:

i In a large number of cases, the Norwegian rural concentrations continued to depend on public incentives and subsidies. Among the factors blamed for this is selection of industrial locations on the basis of bringing work to the workers, with insufficient attention to the availability of skilled labour, raw materials and reliable markets;

ii The Norwegian experience proved that there is a trade-off between overcoming regional disparities and simultaneously helping national economy. Despite that, the Norwegian decentralised concentrations provided work-to-worker conditions which helped rural areas in particular; this

policy was, on the other hand blamed for the noticeable decline in national manufacturing output. The continuous subsidies and incentives provided for rural industries in Norway could have been better exploited in helping industries to establish and flourish in prosperous areas;

iii With few exceptions, the subsidies and loans granted to industries in Norway have not been conditional on provision for development and growth. Therefore, such financial incentives have not been employed so as to stimulate growth and development of industries;

iv It became noticeable that fewer individuals were willing to carry the burdens of enterprise creation in Norway. This raises the issue of the willingness and/or hesitation of individuals to establish their own enterprises as an effective means of utilising the service incentives provided as well as helping growth policies to demonstrate evident success; and

v For better implementation and functioning of the Norwegian local growth centres, it was found necessary to establish inter-ministerial committee which was more able to co-ordinate the actions of the bodies involved in implementing and maintaining the policy programmes.

3.17 The study made of the experience of policy/policies in Britain suggests – for our purposes – the following conclusions:

i The growth and assisted areas succeeded noticeably in polarising firms but demonstrated no great success in terms of stimulating the creation of enterprises from scratch;

ii The studies made by Ashcroft (1978) show that in a large number of cases relocating firms were pushed from their

original locations rather than pulled by Development Areas;

iii The Enterprise Zones (EZs) have not been successful in attracting firms from other regions, but from within their own regions. If this is accepted, then the gain of EZs could be a loss to the regional surrounding areas, where the zones' enterprises could be functioning. This is intensified by the negligible success of the EZs in terms of spreading benefits to their surrounding geographical areas;

iv Quite a few are those firms which admitted that they would not have established outwith the zone. This casts doubt on the ability of the EZs to effectively stimulate creation of new enterprises from scratch;

v Generally, Key-Settlements have not effectively succeeded in pulling firms and job generators to rural Britain;

vi Most of the British rural Key-Settlements suffered from weak co-ordination between planners on the one hand and bodies in charge of services (e.g. water, electricity) provision on the other;

vii The population of the British non-Key Settlements has been mostly disadvantaged by the extreme concentration of services and job generators, albeit few and small-scale, in Key-Settlements. This was sometimes intensified by inefficient transport links between Key and non-Key Settlements; and

viii Migration occurred from non-Key to Key-Settlements, and had positive (e.g. enhancing thresholds of concentrated services) as well as negative (e.g. some non-Key Settlements missed their active farmers) consequences.

3.18 The study made of the experience of the Pole Policy in Spain

suggests – for our purpose –'the following conclusions;

i Social conservatism against immediate and effective participation in industrial programmes was a problem which faced the original seven industrial poles in Spain, in their initial stages. However, these were gradually eroded and people accepted industrialisation as a new fact of life;

ii The duration of the original Spanish industrial poles was initially limited to five and then to ten years. This limited duration was probably too short to enable the poles to show their potentials;

iii The original seven Spanish industrial poles succeeded in polarising as well as in stimulating enterprise and, therefore, job creation. On the other hand, more agricultural jobs (more than the newly created ones) were lost because of the pole policy. The massive migration of the rural labour force to the pole areas as well as the massive sectoral shifts from agriculture to industry are blamed for such rural job and agricultural losses;

iv Some of the pole firms paid inadequate attention to market conditions at the time of establishment. This eventually led them to bankruptcy and closure. Their creation was primarily stimulated by the availability of generous public and financial incentives in the poles, rather than by market mechanisms and needs; and

v The Spanish poles were equipped with a wide range of facilities and – as mentioned above – were fostered by a continual stream of incentives and subsidies. This underlines the importance of financial ability and commitment to foster such a policy, not only at the initial

stage but continuously thereafter.

3.19 The study made of the experience of similar policies in some developing countries suggest the following conclusions:

i In South Korea, almost all the industries in the rural estates have their headquarters in areas of higher centrality. Benefits are probably spread up the hierarchy of urban centres rather than centrifugally to the surrounding areas;

ii Most of the Korean rural industries employ skilled workers from urban areas. This being the case, they do little for rural unemployment;

iii The Korean industries were not linked to local activities and raw materials. This led to a weakness in their ability to spread functional and spatio-economic benefits to the people and areas in which they locate;

iv In Korea, urban development has lagged behind industrial development in a large number of cases. Most of the Korean industrial estates are developed self-contained cells within run-down urban areas. This problem has been intensified by the above mentioned weakness in ability of the estates to spread benefits to their surrounding areas;

v Wrong timing of policy is among the factors which led some assessors to call the Nigerian industrial estates a failure. Despite the excessive regional disparities, the Nigerian estates were concentrated in the comparitively better-off 16 Nigerian urban centres;

vi Industries in Nigeria are mostly dependent on imported semi-processed materials. This has been put forward as being a cause of linking prices of Nigerian manufacturing output

with prices of the imported semi-processed raw materials;

vii The Nigerian industries are mostly not functionally linked with the agricultural sector which employs a high proportion of the labour force. Therefore, backward and forward linkages between the Nigerian industries and the flourishing agricultural sector is extremely weak;

viii The incentive policy associated with the 440 rural Indian industrial estates has not been accompanied by some financial (e.g. taxes) burdens on the new industries establishing in the four relatively pressured and better-off cities. Therefore, firms continued to concentrate in these cities despite the rural estates and their incentives; and

ix The national policy of price equalisation encouraged more firms to move to cities where demand may be more elastic, to justify enhancing their revenues through selling more products to income earners in urban areas: economists believe that propensity to consume increases proportionally with enhancement of income levels. Therefore, although the policy of price equalisation should have been socially welcomed by rural inhabitants in particular, it effectively worked against the Indian rural industrial estates.

3.20 Finally, the summaries accessed by the on-line computer search suggest many concluding statements, from which come the following:

i The small-scale handicraft industries have shown impressive performance (growth, polarisation and spread of benefits) in rural Kenya: they have beeen effectively expanding and spreading benefits to their surrounding areas. They enjoy important locational advantages: local inputs, simple

technology and local markets. This emphasises the importance of industries being linked to local activities, materials and market conditions;

ii The most economically successful industrial estates in Malaysia are located close to large towns and cities; and

iii Small central places disappeared in Namibia due to their inability to retain population and enterprises.

3.21 Having extracted concluding statements on performance of similar policies in the studied experiences (Step One, Figure One), the next sub-section will be aimed at deriving from these statements the bulk of all study issues for the future of policy in Saudi Arabia (Step Two, Figure Two).

STEP TWO: ISSUE DERIVATION

3.22 The above sub-section breaks down the studied experiences into potentially helpful concluding statements. This section will derive from those statements almost all the possible study issues. They will be randomly organised. However, the last step (Figure One) will disaggregate and classify them into multi-disciplined categories.

3.23 At least fourteen possible study issues can be derived (Step Two, Figure One) for evaluation of potential viability of the proposed policy in Saudi Arabia, from both the above concluding statements and the previously made (in Chapter One) theoretical and pragmatic studies. The derived issues will initially be in question form, and are as follows:

i Do the Saudi backward regions (the regions for which help is proposed in the policy concerned) have sufficient potentials (land, labour, capital, raw materials, markets) for the

application and continuous development of growth centres? ;

ii Is there commitment and ability to keep fostering the policy with service and financial incentives and subsidies? ;

iii Will there be trade-offs between the policy in backward areas and the national economic efficiency aims? ;

iv Will the centres succeed in terms of stimulating the polarisation and creation of enterprises? ;

v Is co-ordination and co-operation between the institutions concerned efficient enough for the centres to function smoothly? ;

vi Are factors like transport links, land ownership and land forms potential catalysts or obstacles to implementation and/or effective functioning of the policy? ;

vii Will centres be able to polarise non-central population? ;

viii Is there any social conservatism against immediate participation in industrialisation? ;

ix Will rural industries be independent or merely branches of ones in larger cities? ;

x What are the justifications and aims of the policy proposed in Saudi Arabia? ;

xi Is it possible to overcome regional disparity? ;

xii Is the concept of hierarchical centres applicable as a spatial base for economic development? ;

xiii What are the applied centre selection and ranking criteria? ; and

xiv What are the functions attributed to the proposed centres in Saudi Arabia?

3.24 The above issues - although some can be disaggregated into further issues - are perhaps the principal ones for speculating

about the potential viability of the proposed hierarchy of growth and development centres in Saudi Arabia. Can all of these issues be effectively studied? If not, which ones should be considered and why? The next sub-section will answer these questions.

STEP THREE: ISSUE FILTRATIONS

3.25 Having extracted (Step One, Figure One) and derived (Step Two, Figure One) issues for the future of policy in Saudi Arabia from the theoretical and pragmatic studies which have been made, this section will apply to each of the above derived issues, four filtering questions (Step Three, Figure One and Figure Two) in order to filter for objective study only those which are significant, possible to study and with positive potential impacts on the achievement of the aim of this research. As they appear in Figure Two, these filtering questions are as follows:

i Does the issue lend itself to study? ;

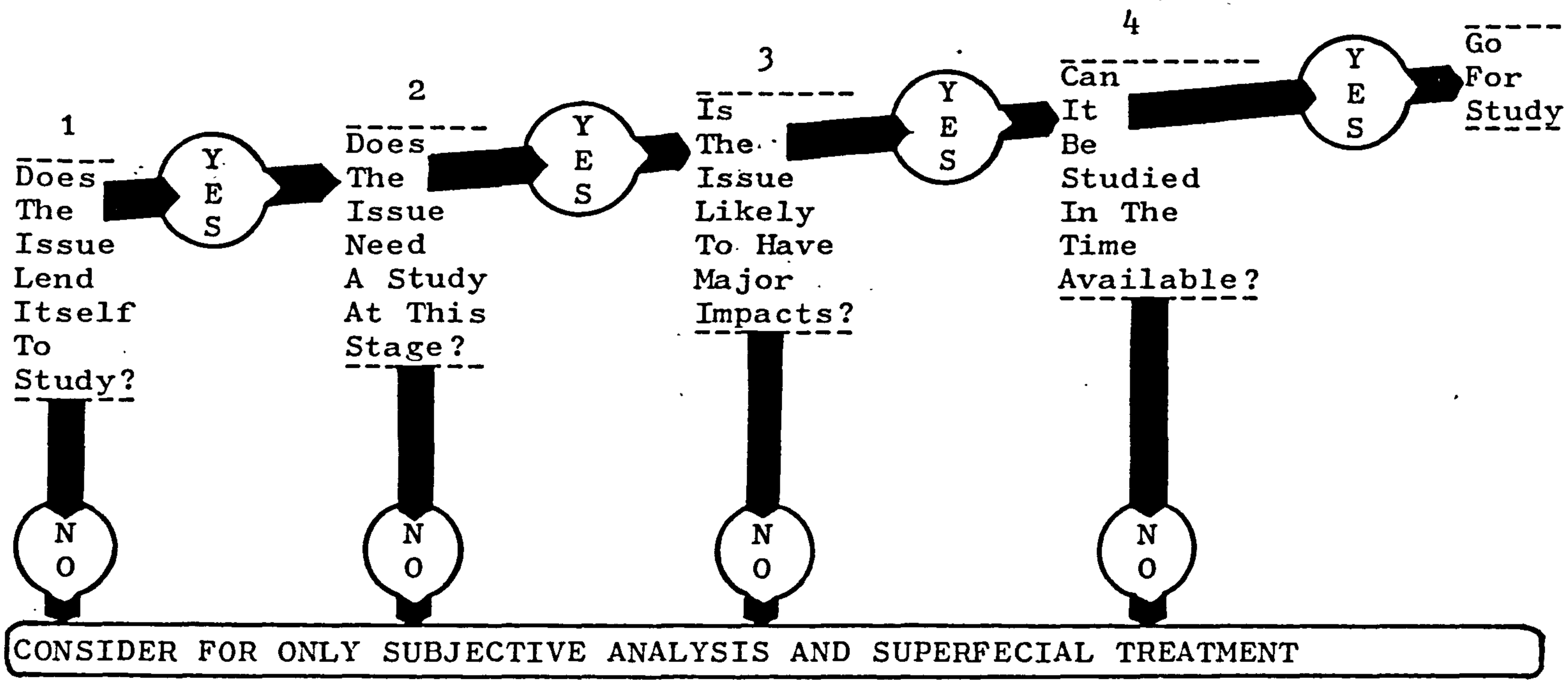
ii Does the issue need a study at this stage? ;

iii Is the issue likely to have major impact? ; and

iv Can the issue be studied in the time available?

3.26 As mentioned above, each of the issues will be tested against all of these four filtering questions, in the fashion suggested by Figure Two. When the answer is YES to all the filtering questions, the issue concerned will be considered for objective study and analysis. When the answer is NO, the issue concerned will be used only for subjective study and superficial treatment (see Figure Two). The end product will be filtered, albeit still randomly organised, study issues.

Figure Two : A Model For Filtering Study-Issues For the Future of Policy In Saudi Arabia (see Step 3 , Figure One)



3.27 Only two issues did not pass the filtering questions (Figure Two) and will therefore be considered for only subjective treatment. First, the issue concerned with assessing viability of raw materials in Saudi backward regions: the time and resources available for this research will not allow objective measurement and consideration of this issue. Second, the issue concerned with whether or not future rural industries will be independent or merely branches of industries locating in cities: this issue, although important to consider at least subjectively, is thought insignificant for measurement at this stage of the study. However, the other derived issues all passed the four filtering questions and, therefore, will be considered for objective study and analysis. This helps to ensure that all the issues which will be deliberately and objectively studied are relevant to the case of Saudi Arabia, and of potential positive contribution to the achievement of the aim of this research.

3.28 The issues filtered for study, still randomly organised, are as follows:

i Adequacy of market conditions (e.g. demand) and factors of production (labour, capital, raw materials);

ii Financial commitment and ability to keep fostering the policy;

iii Trade-offs between social equity and economic efficiency;

iv Potential ability of the centres to stimulate polarisation and creation of enterprises;

v Co-ordination among the institutions concerned;

vi Transportation linkages, land forms and land ownerships: catalysts or constraints?;

vii Potential ability of the centres to stimulate migration of

inhabitants from non-central to central places;

viii Social conservatism against immediate and effective participation in industrial activities;

ix Aims and justifications of the policy;

x Regional disparities: inevitability and the Saudi experience;

xi The concept of hierarchical centres and the proposed policy; and

xii The proposed centres: functions and selection criteria.

3.29 Having extracted (Step One, Figure One), derived (Step Two, Figure One) and filtered (Step Three, Figure One and Figure Two) study-issues for measuring the potential viability of the proposed policy in Saudi Arabia, the next sub-section will proceed to disaggregate (Step Four, Figure One) these issues into various disciplines that will first view the policy from different angles and second match the multi-disciplined objectives stated by the Saudi national development plans for the proposed policy to achieve.

STEP FOUR: ISSUE DISAGGREGATIONS

3.30 As will be explained in various sections in Part Two, the policy of hierarchical pattern of growth and development service centres is proposed in Saudi Arabia for economic, social, settlement and institutional justifications and aims. Chapter Ten (The Evaluation) will judge the potential viability of the policy from all of these perspectives. In order to better prepare for such an evaluation, the above issues will likewise be disaggregated (Step Four, Figure One) into economic, social, settlement and institutional disciplines, as follows:

Economic Issues

i Economic justifications and aims of the proposed policy;

ii Trade-offs between regional equity and national economic efficiency;

iii Financial commitment and ability to foster the policy;

iv Market conditions; and

v Potential ability of the centres to stimulate polarisation and creation of enterprises.

Social Issues

i Social justifications and aims of the policy;

ii Availability of Saudi manpower;

iii Social conservatism against immediate and effective involvement in industrial activities; and

iv Potential ability of the centres to stimulate migrations from non-central to central places.

Settlement Issues

i Regional disparities: theoretical and pragmatic views;

ii Regional disparities in Saudi Arabia;

iii Settlement aims, selection criteria and functions of the centres;

iv The concept of hierarchical centres and the proposed policy; and

v Other settlement issues: transportation linkages, land forms and land ownerships.

Institutional Issues

i Institutional justifications and aims of the policy; and

ii Potential institutional implications of the policy.

3.31 *These economic, social, settlement and institutional issues will be respectively studied in context in Chapters Six, Seven,*

Eight and Nine. Each issue will be further disaggregated into various sub-issues. However, the next Chapter will proceed to describe, justify and illustrate the data gathering methodologies and techniques that will be/have been applied during the researcher's field studies.

CHAPTER FOUR: METHODOLOGIES AND TECHNIQUES OF DATA GATHERING AND SELECTIVE BACKGROUND INFORMATION

4.01 *Methods considerably determine results. Adopting a realistic methodological approach to data gathering should increase the probability of obtaining reliable end-results. In this way, reliability of the derived data can be judged, constraints to the timely application of all forward-planned techniques can be learned, and background information about the selected case studies and sample units can be clearly revealed.*

4.02 This chapter aims to highlight the applied data collection techniques during the survey made for the purpose of collecting primary data. In precise terms, the intention here is to satisfy two purposes: first, to justify the selection of case studies and, second, to highlight the processes and techniques by which primary and secondary data were collected. In order to satisfy these purposes, this chapter comprises seven sections that will respectively answer the following questions:

i Why choose Al-Baha as a study-region? ;

ii Why choose the Jeddah Industrial Estate and the Yanbu Industrial City as two study-cases? Have sampling techniques been used in each case? If yes – why and how? ;

iii Why and how were the Al-Baha car workshops, carpentry shops and metal shops selected for questionnaire survey? ;

iv Why and how was the inter-Al-Baha study-village selected for deliberate study? ;

v Why and how were factories, hotels and wealthy people selected from within Al-Baha for survey and study? ;

vi To whom were other visits made during the researcher's field-study visit, and for what purposes? ; and

vii What are the limitations of the applied data gathering techniques in the researcher's opinion? Are they likely to influence the reliability of the end-results gained?

Answering these questions in this chapter will prelude the utilisation of the data obtained, commencing from Chapter Five.

WHY CHOOSE AL-BAHA AS A STUDY-REGION?

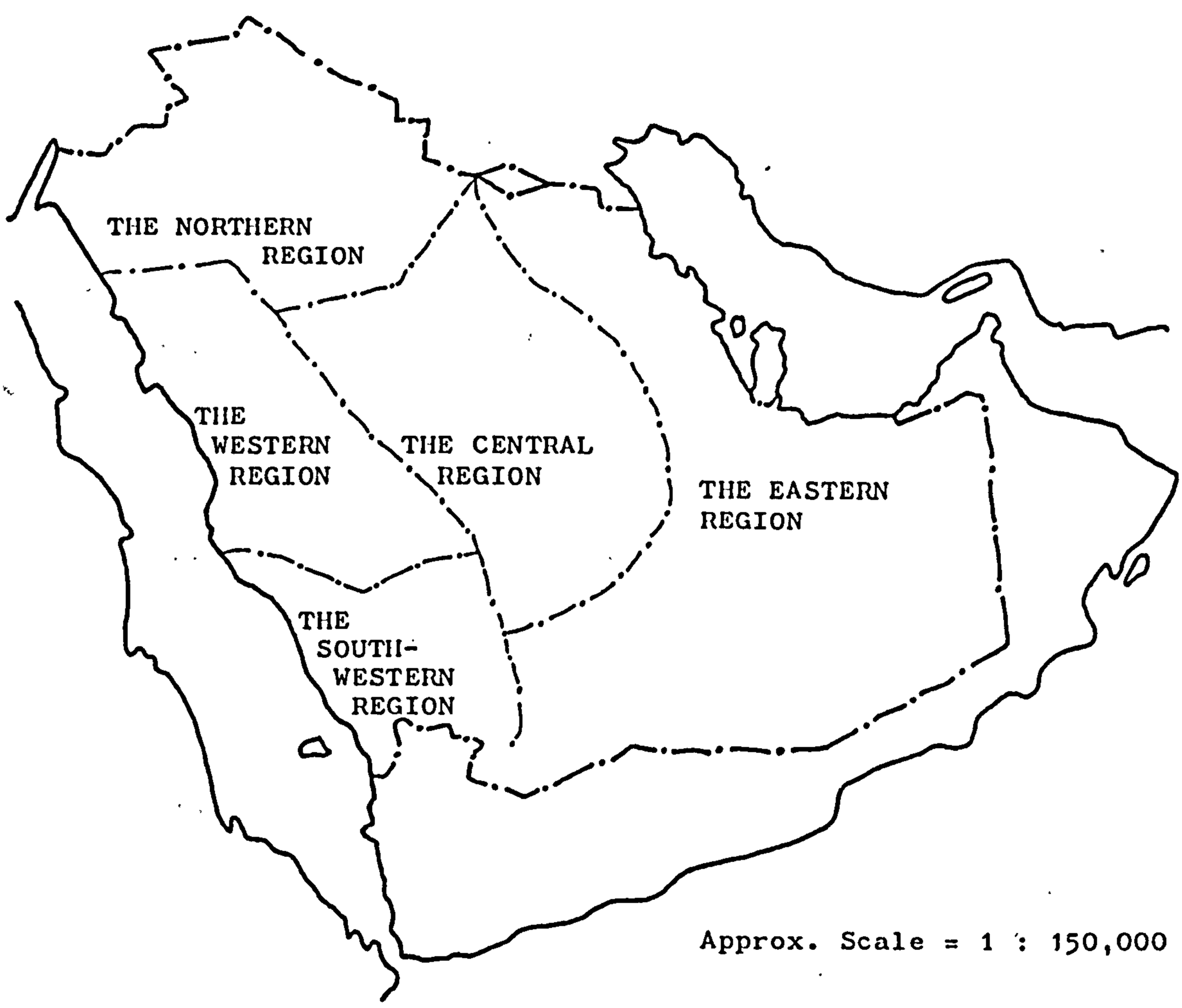
4.03 In order to answer this question this section will first spotlight locational and other physical features of the Al-Baha region. Later, the history of economic developments (e.g. industrial, agricultural) in the region will be briefly and superficially highlighted. This is important to prove the backwardness of Al-Baha in terms of economic developments which, if proved, will justify the selection of Al-Baha as a case-study since the proposed policy is primarily aimed at assisting economic developments in the backward regions of Saudi Arabia.

LOCATIONAL, DEMOGRAPHIC AND PHYSICAL FEATURES

4.04 The Kingdom of Saudi Arabia is divided into five geographical regions: the Eastern; the Central; the Northern; the Western and the South-Western (see Figure One). These five geographical regions are further divided into fourteen administrative regions, of which Al-Baha represents the smallest area (see Figure Two).

4.05 According to Finnplanco (1985, Report 2 + 3, pp.23-24, Arabic Version), the population of Al-Baha totalled 264,780 persons in 1982. (For details see Tables Six and Eight in Chapter Seven). This figure was obtained – like other socio-economic information –

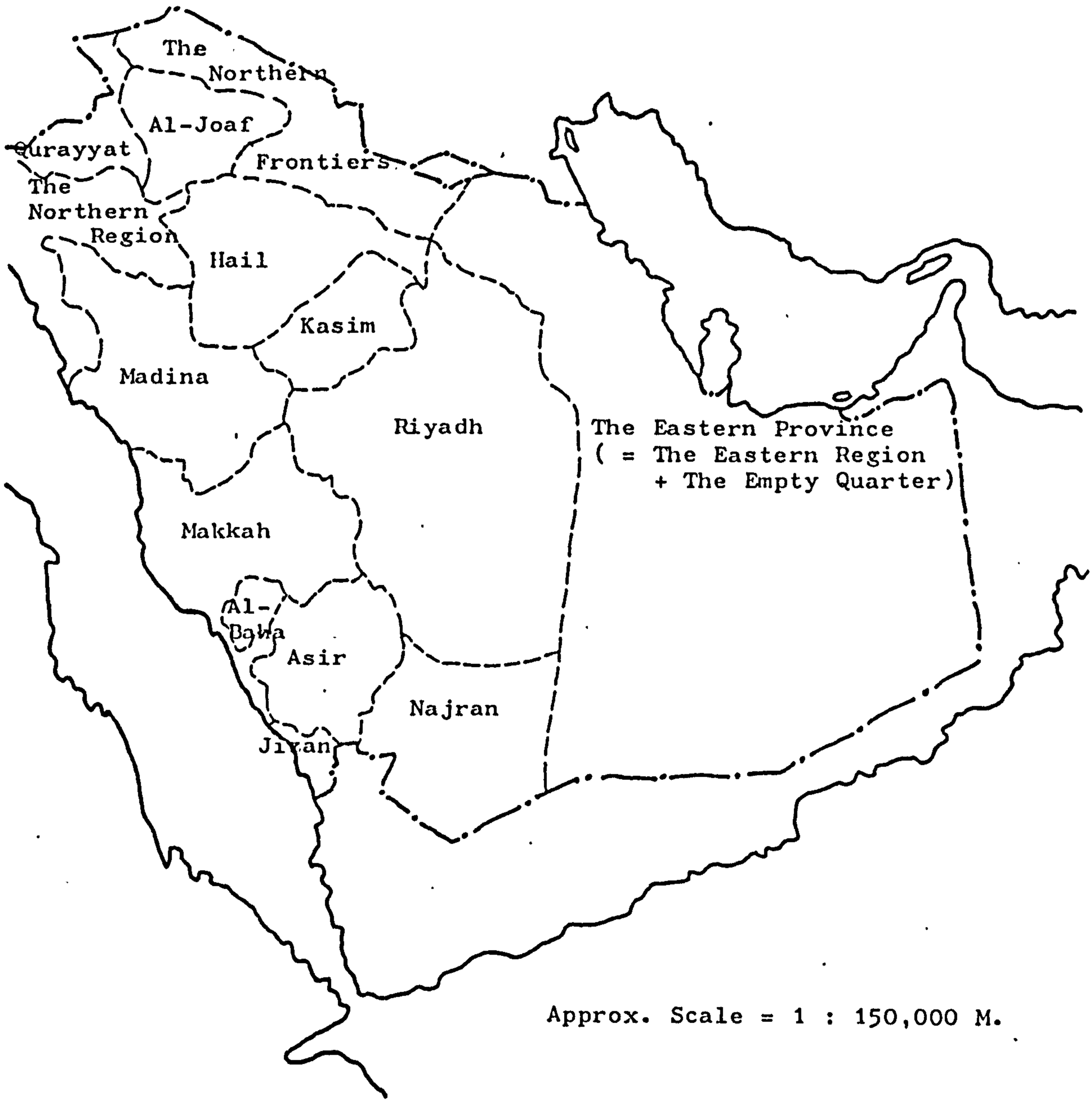
Figure One : Spatial Distribution of the 5 Geographical Regions in Saudi Arabia



Approx. Scale = 1 : 150,000 M.

Source : Finnplanco , 1985 , Report No. 1 , P. 3 .

Figure Two : Spatial Distribution of the 14 Administrative Regions in Saudi Arabia



Source : Finnplanco , 1985 , Report No. 1 , P. 2 .

from field survey. Detailed information about this survey is not provided. Nevertheless, this figure will be accepted in this thesis since the other figures provided by the Central Department of Statistics (Ministry of Finance) are derived from estimations. However, because this total will be used in calculating the availability of manpower that could handle economic activities which would be provided by the proposed growth and development service centres in the region, it is assumed that the total population of Al-Baha - albeit there will be fluctuations due to reverse migrations - has not changed significantly over the period 1982-1988 (the latter being the year of the researcher's survey). Although this assumption may not be factual, it errs on the safe side in so far as estimating the implications and constraints to the proposed policy are concerned. However, our views regarding manpower in Al-Baha will be put in context of the national perspective. In this way, the possible invalidity of the above assumption will not significantly influence the concluding views and arguments.

4.06 With a gross population density of 24·75 inhabitants per Sq.Km. in 1985, Al-Baha represents the second most highly populated administrative region in Saudi Arabia: the Jizan region is the first, with a gross density of 37·4 inhabitants per Sq.Km. (see Table One).

4.07 By applying simple calculations on the data in Table One, the total population of Saudi Arabia can be estimated as 9,470,250 inhabitants in 1985. This justifies the argument that the 264,780 inhabitants of Al-Baha in 1985 formed just under 3% of the total population of the country - despite representing the second highest gross population density in comparison with the other thirteen

Table One: Areas in Sq. Km. and Population Gross Densities by Administrative Regions in Saudi Arabia.

Administrative Region	Area in 100 Sq. Km.	Population gross density in 1985 (persons per Sq. Km.)
Makkah	135.7	18.30
Madina	140.9	5.20
Al-Baha**	10.7	24.75
Riyadh	354.5	5.00
Qassim	57.0	8.10
Asir	78.4	12.20
Jizan	15.4	37.40
Najran	139.9	1.50
Eastern	726.1	1.50
Hail	115.2	3.30
Tabuk	95.2	2.90
Northern Frontier	120.7	1.50
Al-Jouf	64.8	1.50
Qurayyat	50.0	0.90
Totals	2104.5	123.92

* Rub alkali (i.e. the empty quarter) is included in the Eastern

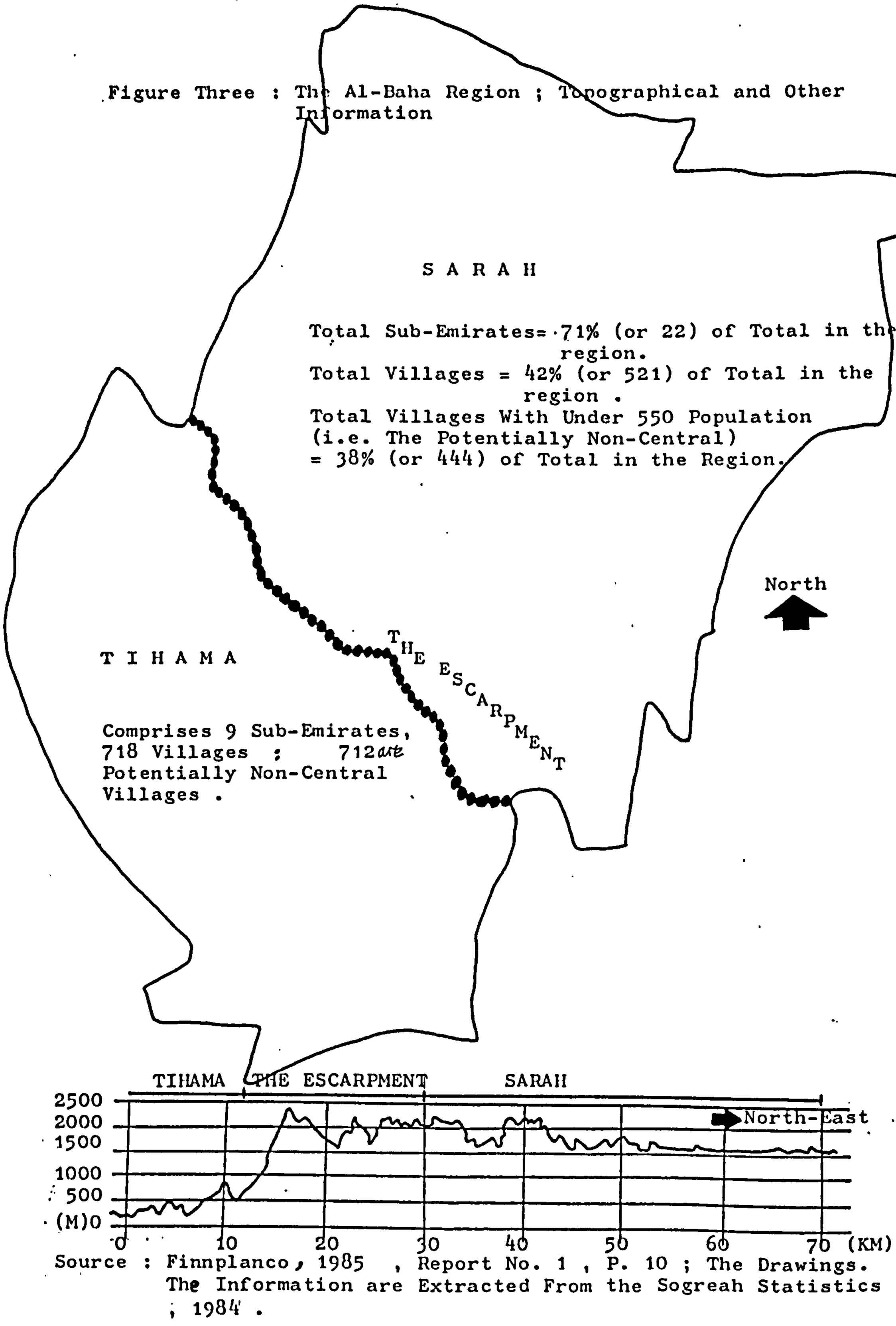
Source: Estimates from the Central Department of Statistics - unpublished.

** Density is adjusted from 24.62 according to the Central Department to 24.75 according to the Finnplanco (1985) figures.

administrative regions. This is shadowed by the fact that the 10,700 sq. km. that Al-Baha occupies (see Table One) represents only 0.5% of the 2,104,500 sq. km. occupied by the whole country. Therefore, we are talking about a region that is comparatively highly populated and representing a small proportion of the national population and area.

4.08 In terms of internal physical structure, Al-Baha and Asir stand distinctively. As shown by Figure Three, the Al-Baha region is sharply divided into two parts by the escarpment (at an altitude of 2000 metres) which separates the Sarah to the east (1000-1400 metres) and Tihama to the west (300-400 metres) (Robert Matthew and

Figure Three : The Al-Baha Region ; Topographical and Other Information



Source : Finnplanco, 1985 , Report No. 1 , P. 10 ; The Drawings. The Information are Extracted From the Sogreah Statistics ; 1984 .

others, 1973). Clearly, the escarpment represents a formidable physical barrier to movement (despite the establishment of the Aqabat Al-Baha road which physically links the two parts of Tihama and Sarah).

4.09 Therefore, we are not talking only about a comparatively small region in terms of population size and area but also about a region that has - like its neighbour, the Asir region - distinctive physical and topographical features. If this is so, then why choose Al-Baha as a study-region? The next sub-section will attempt to answer this question.

MISCELLANEOUS JUSTIFICATIONS

4.10 As will be quoted in various sections of the second part of this thesis, the proposed policy of growth and development service centres is primarily intended to stimulate economic developments (e.g. manufacturing) in the backward regions of Saudi to enable them to retain their population. The question is: Is Al-Baha one of the backward regions which the policy proposes to assist?

4.11 The statistics provided by the Ministry of Industry and Electricity (1985, p.17) show that, up to the end of 1976 there were 157 factories in the whole country: 62 in Riyadh; 38 in Makkah; 39 in the Eastern Province; 8 in Madina; 6 in Kasim and 4 in Asir. The other eight regions - including Al-Baha - had not a single factory at that time. In 1985, the total number of non-oil factories increased to 1,864, of which 1,773 (or 95%) were established in the six regions mentioned above. The remaining 73 factories were established in the other eight administrative regions, with 14 (or 19%) of them established in the Al-Baha region: the total number of factories in Al-Baha was equivalent to

only 0.75% of the total for the country as a whole in 1985.

4.12 According to Finnplanco's statistics (1985, Tables 3-5, Report No. 2 + 3, p.90, Arabic Version), just under 25% of total employment in Al-Baha (i.e. 48,830 jobs) was provided by the subsistence agricultural sector in 1982. Simultaneously, only 5.4% was provided by the manufacturing sector, while 43% was provided by government sectors. Comparatively, 66.3%, 2.2% and 17.7% of total employment in Al-Baha (i.e. 32,206 jobs) were respectively provided by those sectors (agriculture; manufacturing and government) in 1974. This poses three points: first, the role of the government as the largest employer in the region has begun only recently; second, the agricultural sector lost the leadership in terms of employment provision (= sectoral shifts to service sectors and massive emigrations of active male population) and, third, growth in employment provided by the manufacturing sector has been - just like the growth in the sector itself - relatively slow, recent and weak.

4.13 As will be demonstrated in Chapter Eight, Al-Baha - probably just like the other rural regions - was (as indicated above) unable to retain its active population in the face of leapfrog developments and spontaneous availability of job opportunities in the urban areas. This population loss can be partially attributed to the inability of the region to stimulate polarisation, creation and/or development of economic activities. However, it is probably not fair to call Al-Baha and other rural regions depressed: they have not supported their active population, but that was not as a result of missing previously established industries and/or other employers. In other words, Al-Baha and the other rural regions did not have simultaneous chances to develop local activities (i.e.

industries) as the previously mentioned six regions (e.g. industrial estates were first established in 1975 in some cities). This shows – albeit briefly and superficially – the backwardness of Al-Baha as far as economic developments are concerned. If this is accepted then Al-Baha is one of the backward regions to assist by the policy of growth and development service centres designed in Saudi Arabia.

4.14 In addition to the backwardness of Al-Baha as far as economic developments are concerned, there are at least three other miscellaneous justifications for choosing Al-Baha as a study region. These are as follows:

i According to Sogreah (1982), there are 10,365 villages within the whole country, of which there are 1,236 (or 12%) in the Al-Baha region. Setting aside the exact meaning of villages in this context, Al-Baha comprises 12% of the total villages, while representing only 0.5% of the total area and 3% of the total population of the whole country. This implies a high dispersion of population and villages in such a relatively small region. Because the proposed growth and development service centres aims – among other things – at providing for work-to-worker conditions, stimulating migration of the population from non-central to central places and spreading benefits to the centres' surrounding areas, selecting the Al-Baha region, with its high number of villages, will enable the evaluation of the potential implications of the proposed policy from settlement points of view;

ii The distinctive physical structure of Al-Baha can help in evaluating the potential viability of the proposed policy in

areas with physical constraints to concentrations. With the choice of another study-region which may have an easy topographical situation, issues like land forms and topographical constraints to transportation linkages, could result in the underestimation of probable obstacles to the implementation and/or proper functioning of the policy in regions like Al-Baha and Asir. On the other hand, almost all the issues that are relevant to the evaluation of the potential viability of the policy in all the other Saudi backward regions could be studied in relation to Al-Baha. Thus, generalisations could be made more easily and reliably; and

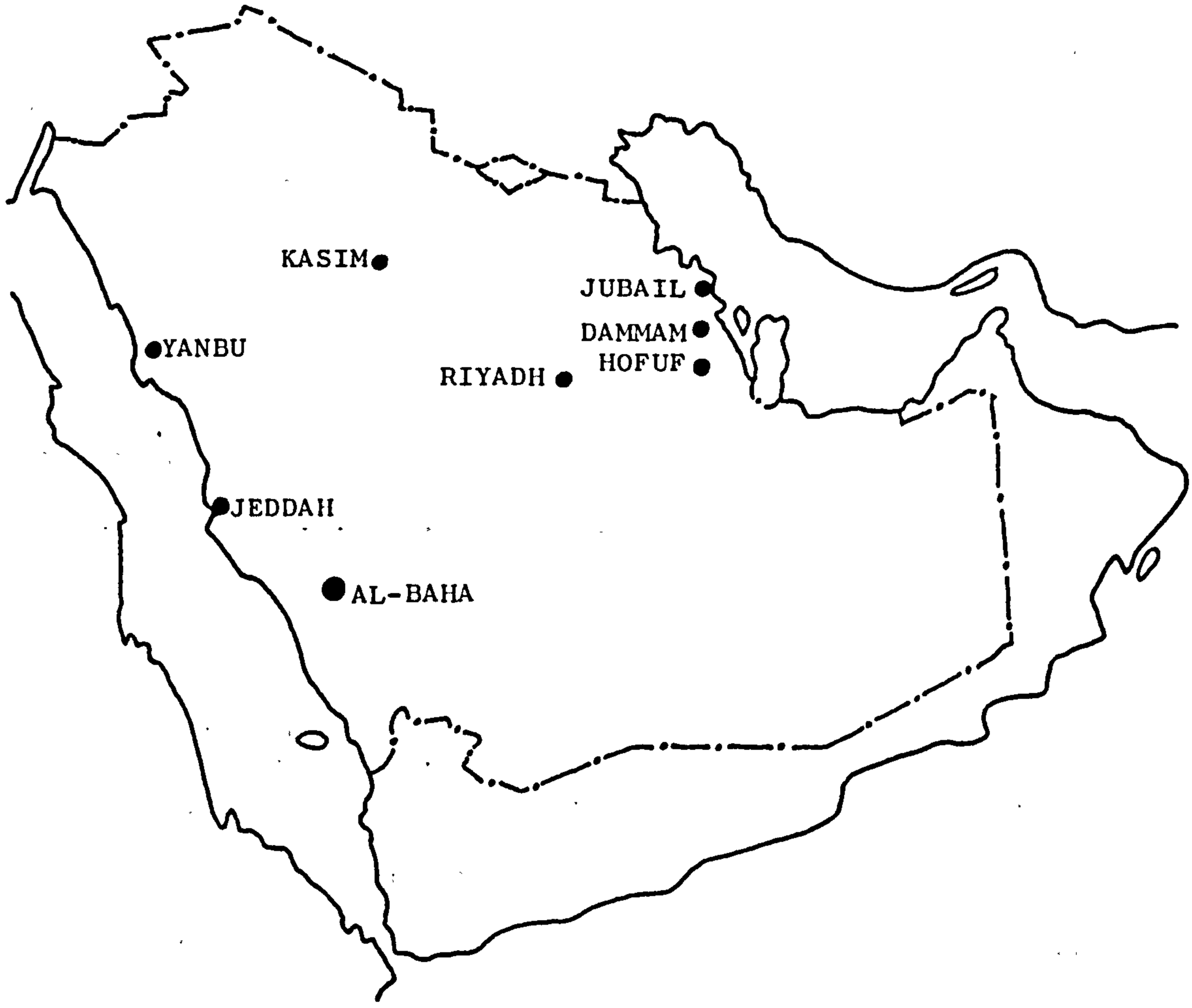
iii The researcher is originally from Al-Baha and is known to many of the population there. This was of vital assistance in the gathering of data and in other field studies, bearing in mind the conservative nature of such rural inhabitants.

4.15 Having justified the selection of Al-Baha as a study-region, the next section will be devoted to justifying the selection of the Yanbu Industrial City and the Jeddah Industrial Estate to evaluate their experiences and the applied methodology in gathering relevant data: the second question this chapter sets out to answer (refer to P. 4.02).

THE YANBU INDUSTRIAL CITY AND THE JEDDAH INDUSTRIAL ESTATE: JUSTIFICATIONS FOR EVALUATING THEIR EXPERIENCES AND APPLIED DATA GATHERING TECHNIQUES

4.16 The two industrial cities of Jubail and Yanbu came into existence during the early days of 1975, mainly to provide for the development of hydrocarbon-based and energy-intensive industries.

Figure Four : Geographical Distribution of Al-Baha (the Study Region) , the Five Industrial Estates (Kasim; Riyadh;Dammam;Hofuf and;Jeddah) and the Two Industrial Cities (Jubail and;Yanbu)



In addition, the two cities have light industrial parks which comprise various types of individual non-oil enterprises. Chapter Five will provide more exhaustive information about these two industrial programmes.

4.17 In addition to the two major industrial cities of Jubail and Yanbu, three industrial estates -in Riyadh, Jeddah and Dammam - were also established in 1975. Two additional industrial estates were established in Kasim and in Hofuf, in 1980. Therefore, by the mid-1980s, five industrial estates and two industrial cities - to distinguish 'estate' from 'city' refer to the term definitions - were established in Saudi Arabia (see Figure Four).

4.18 The question that lends itself to discussion then is: If there are seven industrial estates and cities in the whole country, why choose to study Jeddah Industrial Estate and Yanbu Industrial City in particular? Indeed, several factors stand behind such a selection, for example:

i As is vividly shown in Figure Four, Al-Baha (the selected study-region), Jeddah and Yanbu locate in three neighbouring administrative regions: in Al-Baha, in Makkah and in Madina, respectively. In other words, the three regions represent a continuous strip along the national western boundary. Therefore, examining the experiences of Yanbu and Jeddah in particular illuminates matters linked with issues like that which attempts to evaluate the potential ability of the Al-Baha centres to polarise some of these areas' enterprises, without adding distance as a formidable obstacle to enterprise relocations;

ii Due to spatial proximity, owners of enterprises in Yanbu and Jeddah would be more aware of market conditions in Al-Baha.

Therefore, the probability of having answers to questionnaires built on actual knowledge about conditions in Al-Baha (e.g. raw materials, markets) is higher in choosing to examine these two areas in particular; and

iii Many of the Al-Baha residents run individual enterprises in Yanbu and Jeddah. They would benefit the study by providing information about issues like market conditions in Al-Baha. Whether they would think seriously about relocating in Al-Baha or not, and why, would be extremely important for the study.

4.19 Therefore, examining the experiences of the Jeddah Industrial Estate and the Yanbu Industrial City is potentially more beneficial to the purpose of learning lessons for Al-Baha and the proposed policy. The question then is: What techniques should be/have been adopted in gathering data from each of these two industrial areas? This will be answered in the next two sub-sections.

YANBU AND DATA GATHERING

4.20 The Yanbu Industrial City can be easily split into two parts: one part for heavy industries (i.e. petro-chemicals or oil-related) and another part for light industries (i.e. non-oil). As will be illustrated in Chapter Five, the two parts are physically isolated. Only conditions in the Yanbu Light Industries' Park will be studied, for the following reasons:

i Oil-based industries - which occupy the Yanbu Heavy Industries' Park - are likely to continue concentrating in areas with easy access to a supply of crude oil as a main raw material - e.g. in Jubail and Yanbu. Al-Baha - the

case-study – is unlikely to be ever directly supplied by crude oil for further processing. All the other rural regions, for which the assistance of the policy of growth and development service centres is mainly proposed, lend themselves to this assumption;

ii The proposed policy of growth and development service centres puts great emphasis on stimulating the creation of individual non-oil enterprises: this can be seen in the context of the long term strategy that calls for the diversification of the Saudi economy, rather than continuous dependence on oil-related activities. Therefore, examining the performance of the oil-related industries in Yanbu will probably not help in evaluating the potential viability and implications of the proposed policy: the aim of this thesis; and

iii The factories operating in the Yanbu Heavy Industries' Park are largely owned by the government, with public shares. Losses due to market recessions or other spontaneous factors are more likely to be compensated by the government. This is unlikely to be the case with individual enterprises, which will probably be vulnerable to closures in such serious circumstances. This enforces the irrelevance of learning lessons from the experiences of the Yanbu publically owned oil-based industries for Al-Baha and the proposed policy.

4.21 Having decided to examine the experience of the Yanbu Light Industries' Park, what was the data gathering procedure followed? In order to obtain information about the number and spatial distribution of the enterprises comprising the Yanbu Light

Industries' Park, contacts were made with the Yanbu branch office of the Royal Commission for Jubail and Yanbu. According to the Business Directory (1985) provided by them, there should be 28 manufacturing enterprises operating on the site. However, the survey made showed that only 15 manufacturing enterprises were operating. This bias was probably due to two factors: first, a tyre repair shop and two plant nurseries were considered by the Directory to be manufacturing enterprises (for our purposes, they are not), and second, had ten manufacturing enterprises moved to other areas - mostly to the Jeddah Industrial Estate - where market conditions were probably deemed better: this was mainly discovered by asking operating factories about their neighbouring vacant premises and/or by reading - in some cases - notices left on the doors of the premises.

4.22 Previously prepared questionnaires (see Appendix One) were sent to the 15 factories in operation, of which 14 (or 93%) were answered and returned. The data gathered was analysed and utilised in obtaining lessons for Al-Baha and for the proposed policy. The next sub-section will justify and highlight the methodology applied in gathering data about the factories operating in the Jeddah Industrial Estate.

JEDDAH AND DATA GATHERING

4.23 The map provided by the Administration of the Jeddah Industrial Estate during the researcher's field visit in May 1988 revealed that there were 188 factories operating on the estate. Due to limitations of time and resources, interviewing all those factories was a task that the researcher could not carry out. Therefore, it was necessary to select a sample number to interview.

The question was, how to choose a sample that would be reliably representative of the 188 factories on the estate?

4.24 First of all, 30% of the total enterprises on the estate was decided upon as the intended sample size: it was assumed that the 30% sample would be large enough to provide reliable answers and at the same time would be an achievable target in the time available. However, care had to be taken to reduce the sampling error: i.e. the error or bias in results from the figures that would be obtained if all the factories were involved in the survey. Sampling error can be reduced - and hence more reliable answers obtained - through two complementary approaches: first, by choosing a sample size that is not too small (i.e. favourably above 15% of the background population) and, second, by selecting the sample units (i.e. individual components in the sample) so that each category or group in the background population is satisfactorily represented. As argued above, 30% was deemed a satisfactorily large sample. To meet the second requirement, the units forming the 30% sample of the background population (i.e. of the 188 factories on the estate) should be selected so that all categories of factory on the estate could be proportionally represented. The question was, how to achieve such a representation?

4.25 The spatial random sampling technique seems to work efficiently with background population of the same sort of homogeneity - e.g. households in a city or a neighbourhood, gravels, ... etc. With factories of different functions and roles, spatial random sampling techniques would work accurately only if factories of the same function were scattered around each other in distinguishable spatial zones. Applying this technique on spatially mixed industries would definitely lead to an over-

representation of one category, under-representation of another and/or misrepresentation of yet another.

4.26 To examine the applicability of spatial random sample selection with regard to the factories in the Jeddah Industrial Estate, a careful study of the aforementioned map, and a quick tour of the estate, was carried out. Both actions demonstrated that factories with the same or similar functions did not locate beside each other, but rather were situated alongside factories with completely different functions (e.g. a food factory located beside a concrete factory). Therefore, as argued above, the spatial random sampling technique could lead to misleading results, since the sample would not represent all categories and types of factories on the estate.

4.27 The multi-stage systematic sampling technique was the alternative method chosen. Fortunately, all the names of the factories were listed in the map in Arabic Alphabetical Order. Furthermore, they were categorised into eight functional groups. Therefore, the stages of ordering and categorising the estate factories were mostly provided by the map and by the information attached to it.

4.28 The second stage was to calculate two groups of variables: first, total factories in each category; and second, the share of each category in the total factories on the estate. To ensure each category was accurately and satisfactorily represented by the 30% sample decided upon (30% x 188 = 56 factories), the number from each category in the sample was calculated in the light of its share in the total factories on the estate. Table Two shows the calculation stages and the end share of each category in the sample.

4.29 Having calculated the number that each category should have in the total sample (see Table Two, Column D), attention was then given to deciding on the method by which the actual sample units would be selected from each category. To do this, a systematic selection technique was applied to the already alphabetically-listed factories in each category. Table Two was used to govern the limits that each category should participate with in the total sample. However, in context of the applied systematic selection of sample units, the first and then every third factory was selected from each category.

Table Two: Share of different Categories in the 30% sample size decided upon: preparation for the questionnaire survey for the factories in the Jeddah Industrial Estate.

Category	A	B	C	D
Food Products	29	15%	15%	9
Textiles, Leather and Furniture	16	9%	9%	5
Paper and Printing	15	8%	8%	4
Chemical and Plastic	38	20%	20%	11
Cement, Marble and Lime	15	8%	8%	4
Structural and Fabricated Metal	33	17%	17%	10
Electrical Appliances	16	9%	9%	5
Others	26	14%	14%	8
Totals	188	100%	100%	56

A Total Factories
B Share in the 188 Factories on the estate
C Proposed share in the 30% sample
D Number of Sampled Factories

Source: Developed and calculated by the researcher from the Bajbair (1983): Map of the Industrial Estate at Jeddah.

4.30 Due to lack of time and resources, any factory that was

selected as a unit in the sample in the first instance but found to be on the point of closure (i.e. not operating) was not replaced by another from the same category (= sampling without replacement). Therefore, the sampling technique used in the whole process – i.e. starting with the alphabetical order of the factories and ending with the actual selection of sample units – can be designated a multi-staged-systematic-without-replacement sampling technique.

4.31 Because there was no replacement for the missing sample units, the achieved result was 23% (or 43) instead of 30% (or 56) of all the 188 factories on the estate as an attempted sample size. The possible impacts of such a deficit will be considered in context of the section headed 'Limitations of the Used Techniques': the last section in this Chapter. However, relevant questionnaires (see Appendix One) were successfully answered by all those 43 factories. The gathered data will be utilised in learning lessons for Al-Baha and for the proposed policy – in the same manner as the gathered data from the factories in Yanbu. This will be done in Chapter Five.

4.32 The next section will proceed to justify and highlight the applied procedures in selecting car workshops, carpentry shops and metal shops for survey in Al-Baha: answering the previously stated third question (refer to P. 4.02).

CAR WORKSHOPS, METAL SHOPS AND CARPENTRY SHOPS OF AL-BAHA

4.33 Having carried out questionnaire surveys in Yanbu and Jeddah, attention was then devoted to field studies required for Al-Baha: the study region. Among the various populations for which forward-planned studies were intended there were three types of workshops, namely: Car. Metal and Carpentry shops. These three

types of workshops – besides factories – represented the largest industrial employers and spatio-economic development stimulators in the region, relaxing the significant roles of the major public institutions. The three types of workshops were deemed important for the purpose of examining issues like the number of Saudis and total workers employed by the workshops, sources and types of raw materials used, status of site ownership and willingness of workshops to relocate in the proposed areas of concentration. But, how many workshops should be involved in the study and how should they be selected?

4.34 In order to answer the above question, the total number of workshops existing in Al-Baha, their types and their spatial distributions and addresses should first be elicited. Because all workshops should obtain permission from the authorities concerned prior to their establishment, Al-Baha municipality should, at least in principle, have a list of all the above mentioned information. Unfortunately, such information, which could have enabled this particular study to reach an advanced stage, was not available. Under these circumstances, the only alternative was the time- and resource-consuming task of preparing a list of all the workshops in the region.

4.35 This alternative proved too difficult to undertake in view of the time and resources that would be required to travel throughout the hilly parts of the region to discover the number and locations of these workshops. Instead, discussions were held with some of the staff in the Al-Baha municipality. It was assumed that the staff interviewed could reliably estimate figures that would identify a methodology for carrying out the survey in question. According to their estimations, 85% of the workshops within the Al-

Baha region were located along the sides of the Taif-Abha inter-regional road (see Figure Five). The other 15% were – according to their estimations – spread throughout the whole region. Furthermore, they believed that none of those 15% was distinguishably larger (in both size and employment terms) than the average size of the 85% which were located along the sides of the main road.

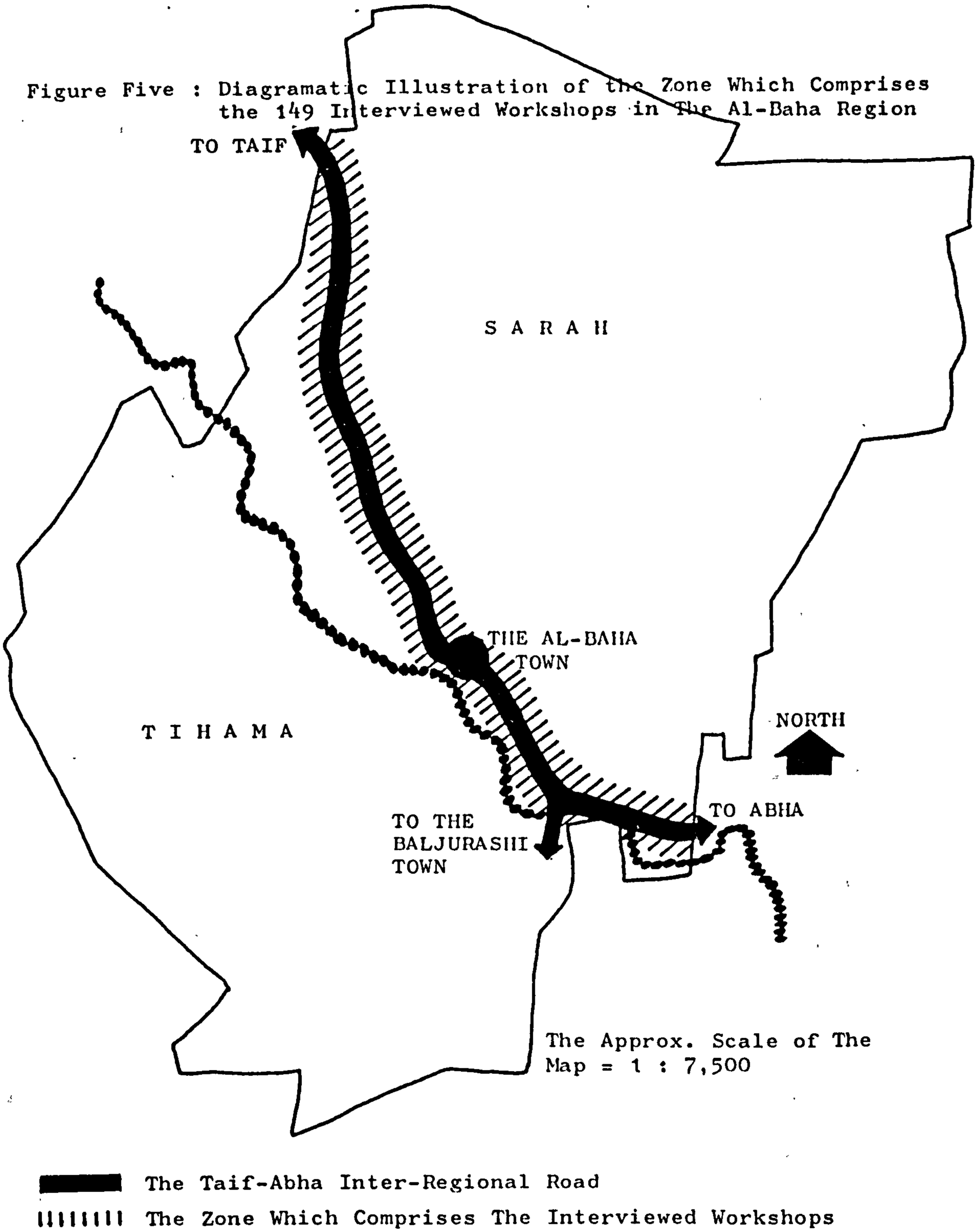
4.36 Accepting the above estimations, a list was then made only of the workshops that were located along the sides of the Taif-Abha Road. Needless to say this is not a conventional sampling technique, but under those circumstances nothing better could have been achieved. However, all the 149 workshops – 66 car workshops, 60 metal shops and 23 carpentry shops – were successfully interviewed, with no missing units. The gathered data will be utilised in highlighting various issues that will be tackled from Chapter Six onwards.

4.37 The next section will justify the selection of, and will provide background information about, the inter-Al-Baha study village: answering the initially stated fourth question (refer to P. 4.02).

THE STUDY VILLAGE: METHODOLOGY OF SELECTION AND BACKGROUND INFORMATION

4.38 Among the issues stated in Chapter Three for objective studies are those of social conservatism against immediate and effective participation in industrialisation, likelihood of migration to occur from non-central to central places in consequence of applying the policy of growth and development service centres, and the willingness of inhabitants to sell

Figure Five : Diagramatic Illustration of the Zone Which Comprises the 149 Interviewed Workshops in The Al-Baha Region



The Taif-Abha Inter-Regional Road

The Zone Which Comprises The Interviewed Workshops

The Escarpment

The Administrative Jursdictions of The Al-Baha Region

portions of their land to others. The question is: Who to ask and who to interview? In Al-Baha, there are 1,236 villages (Sogreah, 1984): the largest village is Al-Makwah with just over 4,300 inhabitants. In order to study objectively the above mentioned and many other issues, three alternative approaches were devised. The first was to interview all the households in the 1,236 villages in the region. This was rejected on two grounds: first, the available time and resources would not enable the researcher to carry the burden of such a demanding task; and second, interviewing the households in all villages was unnecessary to assess the potential ability of the policy to stimulate migration from non-central to central places, as many villages in Al-Baha are actually near the centre.

4.39 The second alternative, to gather data about attitudes of the inhabitants of Al-Baha, was to interview representative sample populations from each of the 1,236 villages in the region. This was rejected also, on three grounds: the two mentioned above and the third was that it would be extremely difficult and demanding to justify the representativeness of each sample selected from each of the 1,236 villages in the region.

4.40 The third alternative to carrying out the above mentioned task was to choose a single study-village and then to carry out a questionnaire survey of all its residents. It should be stressed here that a study-village may not satisfy all the requirements that a typical village may satisfy: e.g. the former may not have equivalent population size, services, employment and other measures to the correspondent averages of those in all other villages that it represents, as the latter may do. Clearly, choosing a typical village for particular study could better represent attitudes and

conditions in the whole region, but identifying it from among the 1,236 villages comprising Al-Baha was deemed an unachievable task: up-to-date data were not available. However, purposely selecting a study-village could satisfy our purposes.

4.41 The selected study-village should satisfy the following broad criteria:

i It should represent the villages that are non-central. This would highlight the degree to which migrations from non-central to central places would be stimulated by the proposed policy;

ii It should have physical and socio-economic features that did not significantly differ from those of the non-central villages in the region; and

iii It should have only basic services (e.g. primary schools) that were similar to those in the non-central villages in the region.

4.42 In order to select a study-village that could satisfy the above broadly stated criteria, three assumptions were stated, as follows:

i The non-central villages would be those populated with 550 inhabitants or less. From there, migration to central places would be most likely to occur due to the stimulation of the policy;

ii A representative picture of social conservatism against industrialisation in the Al-Baha region would be reasonably revealed through examining the attitudes of the selected study-village, which comprises 550 inhabitants or less; and

iii The willingness of Al-Baha inhabitants to sell portions of their land to others would be correctly revealed through

examining the attitudes of the selected non-central study-village.

4.43 Having stated the above broad criteria and assumptions, a study-village of 550 inhabitants or less should be chosen from among the 1,236 villages in the region for deliberate and detailed study. To do this, two consequent procedures were carried out: first, utilising the Sogreah (1984) data, all the villages with 550 inhabitants or less were extracted, together with the number and level of services pertaining to each; and second, interviews were held with 5% of the total of Sheiks heading those villages populated by 550 or less. These two procedures were intended to gather information about those villages: their number; number and type of services they enjoyed; and their historic, economic and social features. After analysing such information, and only then, a study-village would be identified. The next sub-sections will respectively detail the above mentioned two procedures.

UTILISING THE SOGREAH DATA

4.44 Sogreah – a French consultant company – worked for the Ministry of Municipal and Rural Affairs (MOMRA). They carried out a survey for Al-Baha and embodied the results in their report of 1984. Assuming that their data about demographic and servicing conditions represent situations that are not significantly different from the current ones (particularly if we bear in mind that since 1983 public expenditure was geared towards maintaining existing services in light of the obvious deterioration of the oil market), those data will be analysed in this sub-section for the purpose of selecting a study-village from within the Al-Baha region.

Table Three: Villages with 550 Inhabitants or Less (B), Assigned to Existing Services and to the Sub-Emirates in which they are Located

Sub-Emirate	A	B	C	D	E	F	G	H	I	J	K
Al-Baha	36	28	1	1	0	9	7	0	1	0	2
B. Dabyan	29	25	0	2	0	3	5	2	2	0	4
Baydan	23	16	0	0	1	1	2	0	0	0	0
B. Hassan	32	23	0	0	0	1	0	0	0	0	0
Alfaraah	27	17	0	0	0	1	0	0	0	0	0
Alqara	29	24	0	0	0	8	5	1	0	0	0
B. Adwan	21	18	0	0	2	5	4	1	0	0	0
Nakhal	10	10	0	0	1	2	0	0	0	0	0
Mashuqah	13	13	0	0	0	2	1	1	0	0	0
Bidah	25	24	3	0	3	6	3	2	1	0	0
Al-Aqiq	8	7	0	0	0	2	1	0	0	0	2
K. Alhayet	22	21	0	0	1	4	1	0	0	0	2
Jarab	8	8	0	0	1	1	1	0	0	0	1
Bajurashi	83	73	0	2	0	7	9	3	1	0	3
B. Kabir	24	23	0	3	0	5	5	0	0	0	1
B.B. Kabir	4	4	1	0	0	3	0	0	0	0	1
Balshahem	13	9	0	0	1	1	2	0	1	0	2
Al Makwah	155	154	1	0	3	21	17	4	3	0	6
Batat	48	47	0	0	0	5	2	0	0	0	0
G. Azzinad	77	77	1	0	1	5	4	2	1	0	5
Nawan	17	17	0	0	1	2	1	0	0	0	0
Nira	52	52	0	0	1	2	2	1	0	0	0
Qilwah	119	118	0	0	1	19	9	0	1	0	3
Ash Shara	76	75	0	0	2	8	2	1	1	0	0
Alhajrah	130	129	0	0	0	7	0	0	0	0	0
J. Baniali	43	42	0	0	0	1	1	1	0	0	0
Almandaq	27	22	0	0	0	4	2	1	0	0	1
Balkhazmar	21	18	0	0	0	3	1	1	0	0	0
Daws	21	19	0	0	2	5	3	0	0	0	3
Barahrah	35	34	0	0	0	4	6	2	0	0	0
Sh. Ala'La	8	8	1	0	1	2	2	0	0	0	0
Total	1236	1155	8	8	22	149	98	23	12	0	36

A Total Villages
B Villages with 550 inhabitants or less
C Post
D Telephone
E Dispensary
F Elem. School - Boys
G Elem. School - Girls
H Interm - Boys
I Interm - Girls
J Secondary Schools
K Adult Schools

Source: Calculated from Sogreah (1984), Socio-Economic Survey of Villages in the Kingdom: Province of Al-Baha, pp. 70-168.

Table Four: Al-Baha Villages Assigned to Existing Services and Sub-Emirates

Sub-Emirate	A	*	C	D	E	F	G	H	I	J	K
Al-Baha	36		3	5	15	13	2	2	2	2	2
B. Dabyan	29		0	3	1	7	8	2	6	2	9
Baydan	23		3	0	1	7	7	1	2	1	1
B. Hassan	32		3	0	2	10	8	3	1	3	0
Alfaraah	27		1	5	1	9	8	2	3	3	1
Alqara	29		1	0	2	13	10	2	1	1	0
B. Adwan	21		1	0	3	8	7	2	1	1	0
Nakhal	10		0	0	1	2	0	0	0	0	0
Mashuqah	13		0	0	0	2	1	1	0	0	0
Bidah	25		3	0	3	7	4	2	1	0	0
Al-Aqiq	8		1	1	1	3	2	1	0	0	0
K. Alhayet	22		1	0	1	5	1	0	0	0	3
Jarab	8		0	0	1	1	1	0	0	0	1
Bajurashi	83		3	9	2	16	18	8	6	1	9
B. Kabir	24		1	4	1	6	6	1	1	0	3
B.B. Kabir	4		1	0	0	3	0	0	0	0	1
Balshahem	13		0	0	2	5	6	2	3	0	6
Al Makwah	155		1	0	3	18	15	3	2	2	5
Batat	48		0	0	1	6	2	0	0	0	1
G. Azzinad	77		1	0	1	5	4	2	1	1	5
Nawan	17		0	0	1	2	1	0	0	0	0
Nira	52		0	0	1	2	2	1	0	0	0
Qilwah	119		0	0	2	20	10	1	1	0	3
Ash Shara	76		1	0	3	9	2	1	1	0	0
Alhajrah	130		1	0	1	8	1	1	0	0	1
J. Baniali	43		0	0	1	2	2	1	0	0	1
Almandaq	27		1	0	1	9	4	2	1	1	1
Balkhazmar	21		0	0	2	7	2	2	0	0	0
Daws	21		2	1	4	7	5	1	1	1	4
Barahrah	35		1	1	1	5	7	2	0	1	1
Sh. Ala'La	8		1	0	1	2	2	0	0	0	0
Total	1236		31	29	45	221	159	46	34	20	58

A Total Villages
C Post
D Telephone
E Dispensary
F Elem. School – Boys
G Elem. School – Girls
H Interm – Boys
I Interm – Girls
J Secondary Schools
K Adult Schools

* 'B' is omitted here to provide for comparitive views with the data in Table Three, since villages with 550 inhabitants or less are not separately categorised here.

Source: Calculated from Sogreah (1984), Socio-Economic Survey of Villages in the Kingdom: Province of Al-Baha, pp. 70-168.

4.45 Table Three categorises the potentially non-central villages (those with under 550 inhabitants) according to the types of services provided (columns) and to the Sub-Emirates within which they are located (rows). The figures in the bottom row of Table Three – the grand totals – reveal that Al-Baha comprises 1,236 villages, of which 1,115 (or 93%) have 550 inhabitants or less. According to previous assumptions, our analysis should be targeted to those 1,115, which are potentially non-central places.

4.46 Table Four provides information concerning the same variables addressed in Table Three, but relates data to all villages in Al-Baha, including those with over 550 inhabitants. Comparing the grand totals in Table Three with those in Table Four shows clearly that most facilities are concentrated in the larger villages.

4.47 Table Five is a summary derived from Tables Three and Four which shows that the greatest concentrations of post and telephone services occur in the 81 larger villages in the region. The picture is more balanced in terms of the distribution of dispensaries. However, if we consider that 93% of the total villages in Al-Baha have less than 550 inhabitants, but have an aggregate share of a little under 50% of the total dispensaries in the region, then a fair argument would be that even health facilities – represented by dispensaries – are concentrated in larger villages. Table Five shows also that villages with 550 or fewer inhabitants have a comparatively reasonable share in the basic educational facilities within the region. How, then, could Table Five assist the researcher in deciding upon the selection of a study-village?

4.48 In the light of the data provided by Tables Three and Four

Table Five: Al-Baha Villages Categorised by Size and Types of Services: A Concluding Table From Tables Three and Four.

Size of Village	A	B	C	D	E	F	G	H	I	J
With 550 Inhabitants or less	1115	8	8	22	149	98	23	12	0	36
With over 550 Inhabitants	81	23	21	23	72	61	23	22	20	22
Totals	1236	31	29	45	221	159	46	34	20	58

A Total Villages in Category
B Post
C Telephone
D Dispensary
E Elementary - Boys
F Elementary - Girls
G Intermediate - Boys
H Intermediate - Girls
I Secondary Boys and/or Girls
J Adult Schools

Source: Calculated from Sogreah (1984), Socio-Economic Survey of Villages in the Kingdom: Province of Al-Baha, pp. 70-168.

and summarised in Table Five, it could be argued that the study village should not have post or telephone services. As shown by the Tables, these services are of a higher order and tended to be provided in the larger villages: our concern here is to choose a study-village that is representative of conditions in the small, potentially non-central, villages. On the other hand, the study-village may contain dispensary, elementary and/or adult schools: this is also illustrated by the analysed data. Clearly, the study-village should not contain significant services (e.g. secondary schools, large hospitals, hotels) or large private employers (e.g. factories). These broad characteristics should assist in the selection of a study-village from amongst the 1,115 non-central villages in the Al-Baha region.

INTERVIEWS WITH HEADS OF VILLAGES

4.49 Having agreed upon a general scale of the type and order of services that the study-village should and should not contain,

there was now a need to decide upon the historic, social, physical and economic features that the study-village should have. To do so, it was considered necessary to conduct interviews with the Sheiks (i.e. heads) of 5% of the total number of villages with less than 550 inhabitants. This meant that interviews had to be carried out with the Sheiks of 58 villages (i.e. 5% x 1115). The next decision was how to determine the selection of these 58 villages from amongst the 1,115 villages in the region with fewer than 550 inhabitants.

4.50 To obtain random and representative units from each Sub-Emirate in the total 5% sample (i.e. 58 villages), the selection would have to be made in consideration of the Sub-Emirates' shares of the total number of villages with fewer than 550 inhabitants within the region. This was to ensure that, first, each of the 31 Sub-Emirates in the regions would be fairly represented by the sample; and second, the random sample would relate to all parts of the region. To convert this plan into calculated figures, Table Six was produced in advance of the actual interviews.

4.51 Having calculated the share of each Sub-Emirate in the proposed sample (see Table Six), the Sogreah (1984) lists – which present all villages in Arabic alphabetical order – were used to apply the systematic selection technique to obtaining a sample from the listed villages. In the case of a single Sub-Emirate deserving only one village in the sample (i.e. as per the data in Table Six), the first in alphabetical order was selected. Otherwise, the first and every third village was chosen

4.52 Having chosen the 58 villages for the purposes described above, meetings were then held with their heads (Shieks). Points which summarise both the findings of those meetings and the

Table Six: Allocating the 5% Sample of Villages with 550 or Less Inhabitants to the Al-Baha Sub-Emirates

Sub Emirate	A	B	C	D	Sub Emirate	A	B	C	D
Al-Baha	28	2.4%	2.4	1	Balshahem	9	0.8%	0.8	1
B. Dabyan	25	2.2%	2.2	1	Al Makwah	154	13.3%	13.3	8
Baydan	16	1.4%	1.4	1	Batat	47	4.1%	4.1	2
B. Hassan	23	2.0%	2.0	1	G. Azzinad	77	6.7%	6.7	4
Alfarah	17	1.5%	1.5	1	Nawan	17	1.5%	1.5	1
Alqara	24	2.1%	2.1	1	Nira	52	4.5%	4.5	3
B. Adwan	18	1.6%	1.6	1	Qulwah	118	10.2%	10.2	6
Nakhal	10	0.9%	0.9	1	Ash Shara	75	6.5%	6.5	4
Mashuqah	13	1.1%	1.1	1	J. Bani Ali	42	3.6%	3.6	2
Bidah	24	2.1%	2.1	1	Almandaq	22	1.9%	1.9	1
Alaqiq	7	0.6%	0.6	0	Balkhazmar	18	1.6%	1.6	1
K. Alhayet	21	1.8%	1.8	1	Daws	19	1.6%	1.6	1
Jarab	8	0.7%	0.7	0	Barahrah	34	2.9%	2.9	2
Baljurashi	73	6.3%	6.3	4	Sh. Ala' La	8	0.7%	0.7	0
B.B. Kabir	23	2.0%	2.0	1	Alhajrah	129	11.1%	11.1	6
B.B. Kabir	4	0.3%	0.3	0	**Grand Total**	**1115**	**100%**	**100**	**58***

* 58 is the sample, calculated at 5% of 1115
A Total Villages with less than 550 inhabitants
B Share in Grand Total
C Proposed Share in Sample (%)
D Proposed Share in Sample (Number)

Source: Calculations are based on the Sogreah Data (1984). (Sogreah data were used mainly to determine the number of villages with under 550 inhabitants in each Sub-Emirate), as with Table Three

information gathered through observations, after being analysed and summed up, are as follows:

i As many as 55 (i.e. 95%) of the heads of the villages who were interviewed were illiterate. Therefore, logically, the expected answers would be subjective ones which could not be quantified easily. Nevertheless, those answers could help greatly in the selection of a study-village which was the main task. Commencing from point two below, the summarised information will be listed;

ii Almost all of the 58 Sheiks reported that high proportions of the young active population of their villages were

employed in large cities. They came almost every year to spend vacations and celebrate festival days in their villages where their relatives and inherited lands were;

iii The elderly – i.e. people aged over 60 years – were mostly dependant on three sources of income: first, social benefits paid by the government; second, charity (or Zakah) which is obligatory in Islam on the rich for the benefit of the poor; and third, money sent to them by their sons and relatives who worked and earned salaries in the cities;

iv Only small proportions of the population in those villages interviewed still cultivated subsistence agricultural lands and/or kept grazing animals. Subsidised food could be bought cheaply from markets. Obviously, this was easier than cultivating lands in areas that lacked reliable sources of water;

v Speaking on behalf of their villages, almost all of the Sheiks interviewed perceived selling inherited lands as shameful behaviour. This issue will be objectively studied in Chapter Eight;

vi They all had great loyalties to their villages. A high proportion of them affirmed that some of the village inhabitants who went to work in the cities a long time ago still came from time to time to their villages for temporary visits. When they retired, people employed in the cities tended to come back to their original villages to spend the remainder of their lives;

vii Almost all of the 58 villages visited were located at the tops of hills and/or mountains. Stone-built forts were a feature of these hill-top villages, signifying the pre-1900s

wars between the different tribes;

viii The old houses built from stone, wood and mud were almost all abandoned in these villages. New houses built of concrete are the distinguishable replacements. As most of the villages tended to expand and move towards lower, more accessible locations, some agricultural lands were converted into built-up areas.

4.53 Having summarised the information obtained from observation as well as from the meetings held with the Sheiks of the 58 villages previously sampled within Al-Baha (refer to Table Six), and having prior to that broadly identified the types and levels of services that the study-villages should and should not contain, efforts were then devoted to the actual selection of a study-village from amongst the villages visited.

4.54 The Qezzanah village was the one we sought. Besides satisfying all the socio-economic and physical requirements mentioned above, three highly-educated persons - who could help in the gathering of data - live permanently in this village. If a researcher was not known to the inhabitants, it would be extremely difficult to obtain answers to the questionnaire in such a rural village. Therefore, the availability of these highly-educated persons reinforced the selection of Qezzanah as a study-village. However, it must be stressed that the selection of Qezzanah as a study-village was an end product of the lengthy procedure described above, rather than otherwise. The next section will illustrate some social, economic, historic and physical features of Qezzanah for at least two purposes: first, to demonstrate that the main features of Qezzanah do not differ greatly from those of the 58 villages visited (which were initially sampled from the 1115

potentially non-central villages in the region - refer to Table Six), for which Qezzanah would be a representative in this study; and second, to provide background information about Qezzanah so that later detailed studies of the attitudes and conditions of the inhabitants could be pre-served.

QEZZANAH: THE SELECTED STUDY-VILLAGE

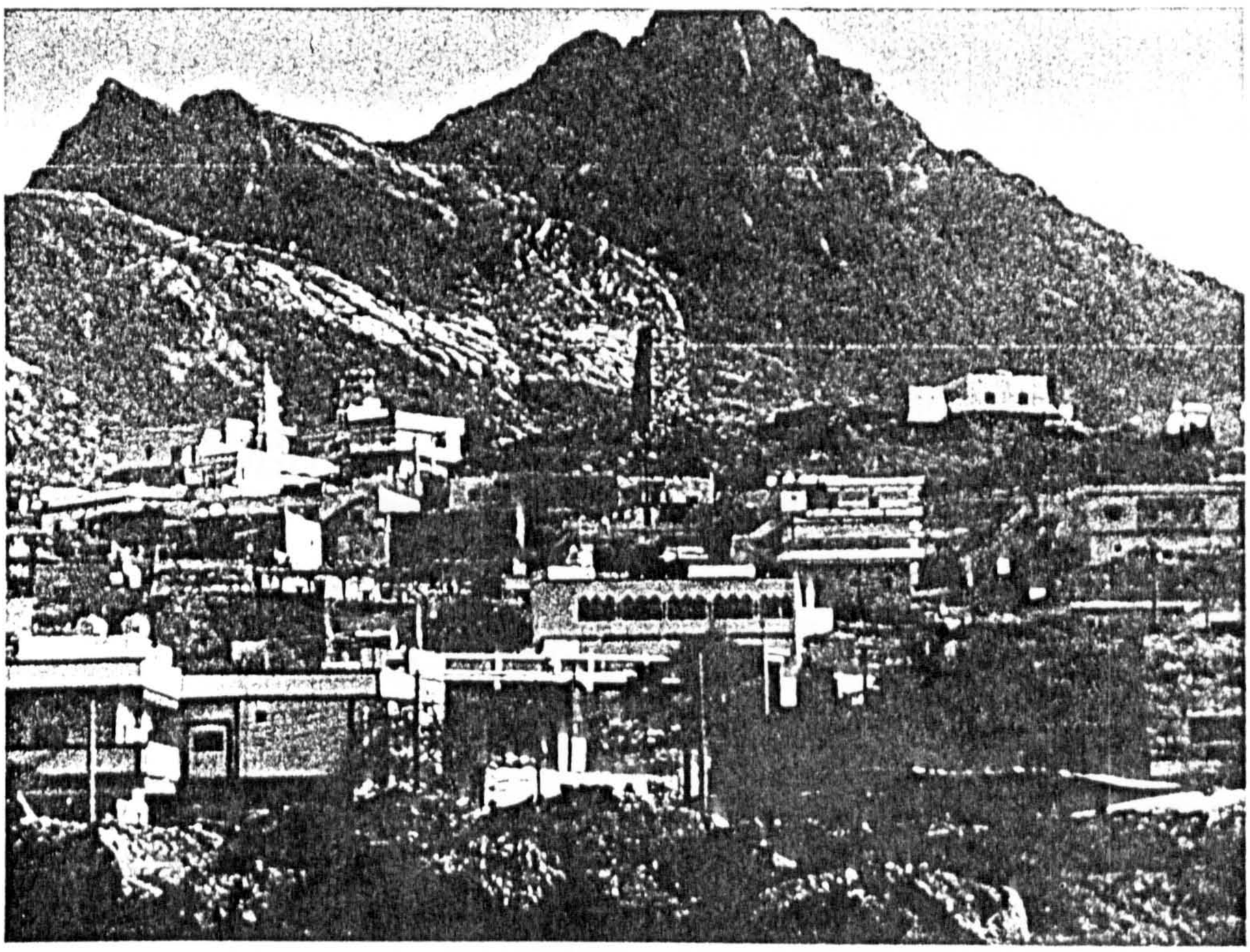
4.55 Qezzanah – just like almost all the villages visited – is situated at the top of a mountain. A mosque, with a high minaret, and two forts – all built of stone – dominate the centre of the village, which occupies the very top of the mountain on which the village is situated (see Figure Six).

4.56 The selection of the mountain top situation was for security reasons. It was easier for the residents to look out for possible invaders passing through the valleys surrounding the village. The position of the forts gave clear visibility in all directions, safeguarding the village from surprise attack. Therefore, the building of the forts and the mountain-top location of the village were translations of local defensive strategies in the face of the frequent tribal wars which took place in the nineteenth century, and probably prior to that time.

4.57 The old buildings of the village were constructed from local materials – stone, wood and mud – and are very compact. Most of these buildings share common walls and have no set-backs: this would have been for both security and economic reasons.

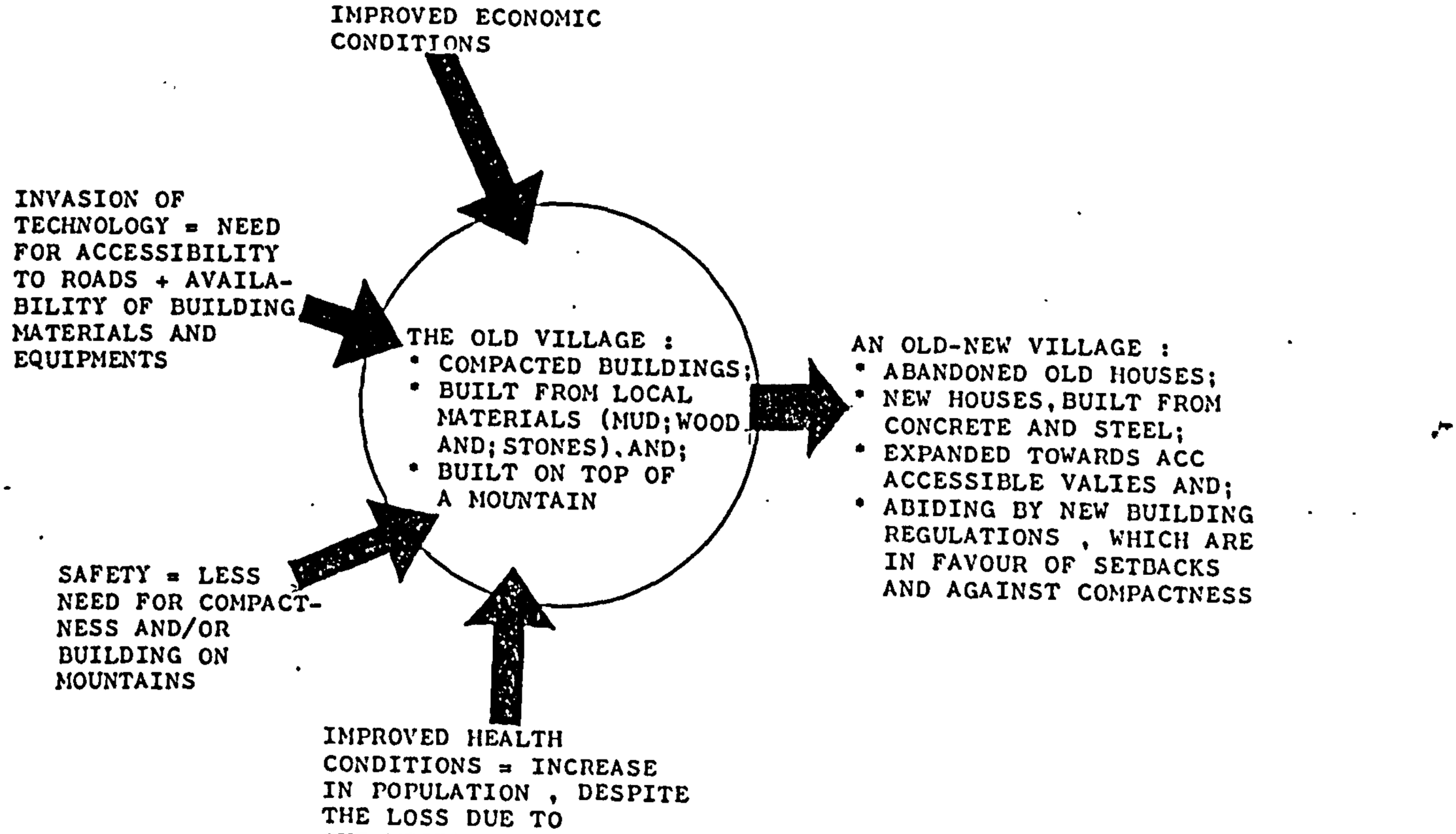
4.58 The village – in common with the others – had witnessed significant social and physical changes since at least the mid-1960s. People became better enlightened due to the sudden spread of ordinary and adult schools. Security greatly improved. As in

Figure Six: Qezzanah; the Study Village



the other villages, economic conditions for the inhabitants of Qezzanah improved in many ways. The Real Estate Development Fund (REDF) – interest-free funds given by the government to citizens for the purpose of building private houses – became available to the inhabitants of Qezzanah, as well as to others throughout the country. The young, active population of the village mostly left to work in cities and used to send money back to their fathers in the village. Technology made it possible to transport sophisticated building materials to the village. Therefore, new forces came to impose some responsive changes on the physical structure of the village (see Figure Seven).

Figure Seven : The Main Forces That Imposed Radical Changes On
The Physical Structure Of Qezzanah : The Study Village



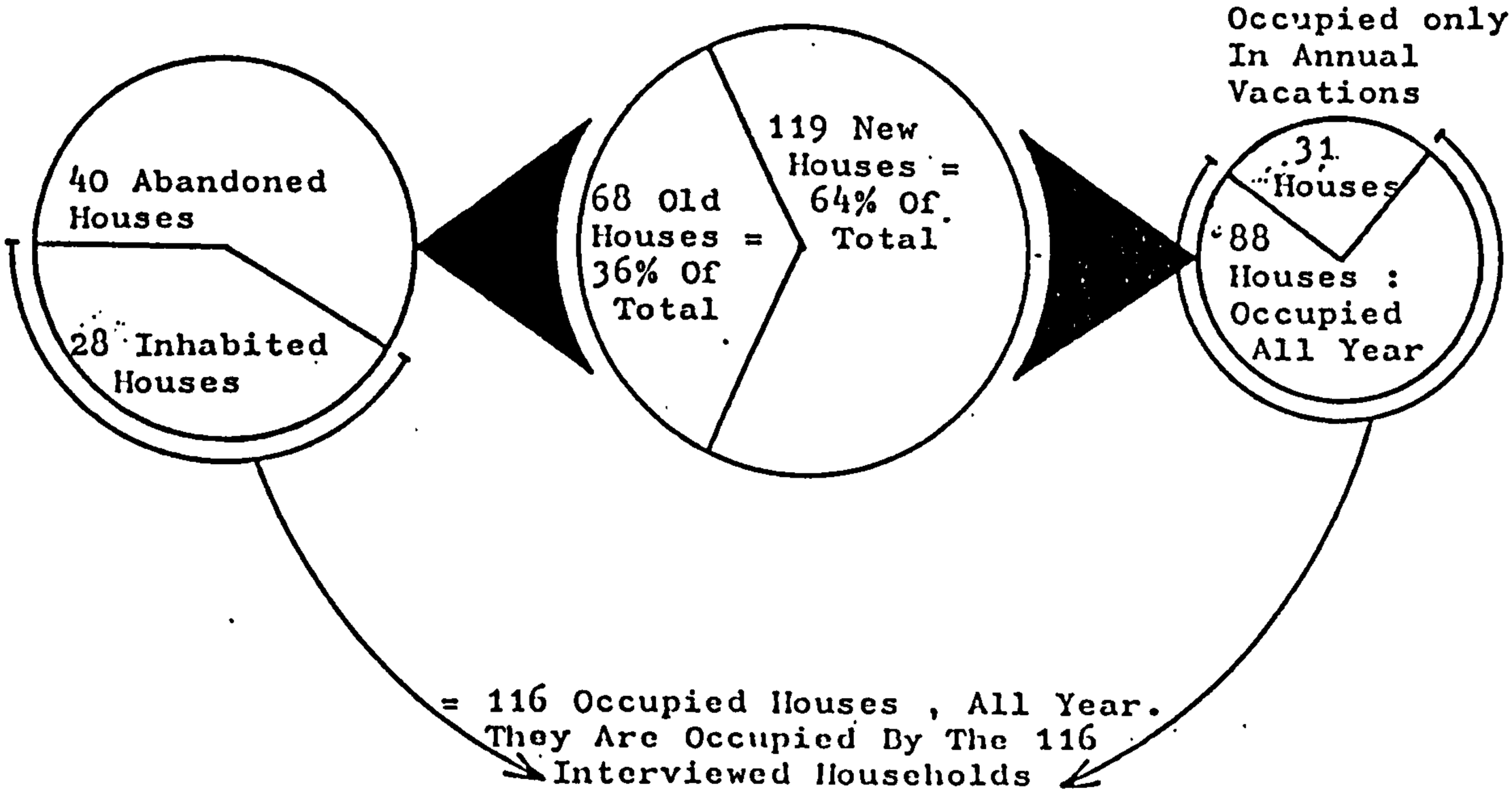
4.59 Despite the reluctance of inhabitants to sell land to others – as reported by the Sheiks and as will be demonstrated in Chapter Eight – the village expanded towards the surrounding valleys. The factors that led to such expansion are described above and summarised in Figure Seven. Of the 68 old buildings in Qezzanah, 40 (or 59%) are abandoned and threatening to collapse. On the other hand, of the total 187 houses in the village, 119 (or 64%) are newly-built from concrete and steel. However, 31 of these 119

new houses are occupied only once a year, when their owners return from the cities to spend their annual vacations in the village. Therefore, we are talking about 116 inhabited houses in Qezzanah: 28 old houses (=68-40) and 88 new houses (=119-31). Our questionnaire survey would be targeted on the households residing in these 116 houses (consult Figure Eight)

4.60 However, the physical features of Qezzanah do not differ greatly from those of the other 57 villages visited. Figure Seven shows that the physical features of Qezzanah were an end-product of many technological and economic forces. This provides the argument that those forces were probably experienced by almost all of the other villages visited. Furthermore, Qezzanah comprises only basic services: primary schools and a small dispensary. In this, the conditions in Qezzanah are similar to those in the other villages for which it is being considered as representative. But, what of the demographic conditions?

4.61 According to the statistics prepared in early 1988 by the Qezzanah dispensary, the village does not differ greatly from the other 57 villages, as reported by the Sheiks, in its social and demographic structure. Table Seven and Figure Nine show, simultaneously, that the population of Qezzanah over the age of 19 years started to decrease sharply. According to the same dispensary, the death-rate was as low as 2% in 1986 and 1987 in the village: they believe that the death-rate has not changed significantly since the early 1980s. This being so, the reason for the decline in the population aged over 19 years can safely be attributed to the fact that the young people were seeking work outside the village - the conditions described by the village Sheiks interviewed.

Figure Eight : Type and Occupancy Information About The 187 Houses Comprised By Qezzanah ; The Study Village



Source : Developed In Light Of The Field Survey, Carried Out By The Researcher In April , 1988

4.62 Applying simple calculations to Table Seven shows that 53% of the total population in Qezzanah is female and only 47% is male. The figures also show that out of the 258 people who are aged between 19 and 59 (i.e. active population), 163 (or 63%) are females and only 96 (or 37%) are males. This clearly shows that the migration from Qezzanah is confined mostly to young, active, males. Females do not work side by side with males in Islam. Therefore, females do not leave the village unless they are accompanying their husbands.

Table Seven: Age-Sex Structure of the Qezzanah Population

Age Group (Years)	Males	Females	Totals
0 – 4	73	70	143
5 – 9	96	79	175
10 – 14	74	59	133
15 – 19	59	83	142
20 – 24	18	28	46
25 – 29	11	32	43
30 – 34	4	18	22
35 – 39	9	25	34
40 – 44	14	13	27
45 – 49	5	23	28
50 – 54	15	19	34
55 – 59	20	4	24
60 – 64	9	13	22
65 – 69	14	18	32
70 – 74	14	16	30
75 – 79	3	7	10
80 +	21	16	37
Totals	459	523	982

Source: Statistics Prepared by the Qezzanah Dispensary – 1988

4.63 In conclusion, it is clear that Qezzanah clearly reflected a representative picture of the attitudes of the inhabitants in the other potentially non-central villages in Al-Baha. It had basic services and similar social, physical, economic and historic features to those of the other 57 villages. Furthermore, as previously stated, the factor of having three highly-educated persons to assist with the gathering of data living in Qezzanah was an advantage that should not be underestimated, particularly in such a conservative society.

4.64 Having selected Qezzanah as the study-village, a questionnaire survey was carried out for the 116 households in the village (refer to Figure Eight). The results of this survey will be utilised in examining many issues throughout the second part of this thesis. However, the next section will highlight other visits

and studies made by the researcher during his field visits: answering the sixth question (refer to P. 4.02).

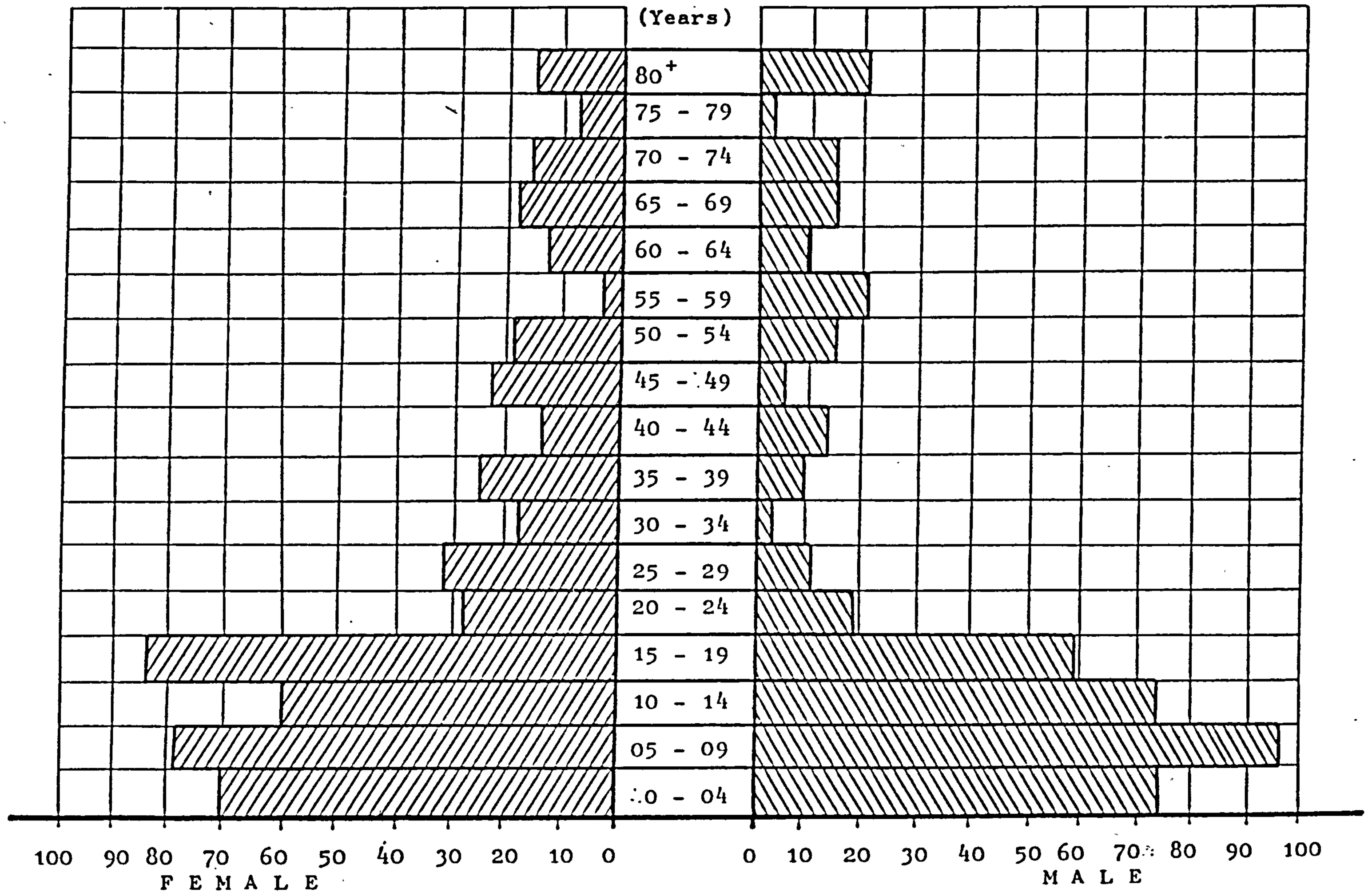
OTHER STUDIES AND VISITS

4.65 In order to examine issues like market conditions and willingness to stay in original locations or to move to places of proposed concentrations within or outside the region, interviewing the factories within Al-Baha was considered essential. According to the Ministry of Industry and Electricity (1987), there were at least fourteen factories in the Al-Baha region. Only eight were known to the office of the Chamber of Trade in Al-Baha. This is not to say that there was a disagreement in reports, but rather to say that the Al-Baha Chamber of Trade knew only of their members. Membership of the Chamber, who help their members in contacts with the Ministry of Industry in Riyadh, as well as in other technicalmatters, is not obligatory but rather voluntary and recommended.

However, because only the Chamber of Trade could supply the survey with addresses and preliminary information about factories in the region, only the eight factories known to them were interviewed.

4.66 Exploring the extent to which the proposed policies of cocentrations and incentives could stimulate the creation of enterprises from scratch was one of the previously filtered issues (refer to Chapter Three). In order to illustrate that, seven persons – who were known to average citizens of Al-Baha as wealthy – were interviewed. Four of them were orginally from villages with under 550 inhabitants (i.e. the potentially non-central), while the other three were from larger villages. Their opinions and attitudes will be utilised in later studies.

Figure Nine : Population Pyramid For The Qezzanah Population , In 1988



Source : Developed From Table Seven

4.67 Meetings were held with senior employees in the four hotels that exist in the Al-Baha region. The results of the questionnaires will help to illustrate tourism as a central function in Al-Baha.

4.68 Finally, having interviewed 43 factories in Jeddah, 14 factories in Yanbu, 149 workshops in Al-Baha, 116 households in Qezzanah, 8 factories in Al-Baha, 4 hotels in Al-Baha and 7 rich people from different villages in Al-Baha, visits were then made to many institutions and persons, as follows:

- The Ministry of Planning in Riyadh;
- The Royal Commission for Jubail and Yanbu in Riyadh and Yanbu;
- The Ministry of Transportation in Riyadh;
- The Ministry of Municipal and Rural Affairs (MOMRA) in Riyadh;
- The Saudi Consultation House in Riyadh;
- The Ministry of Finance and National Economy in Riyadh and Jeddah;
- The Villages' Affairs in Riyadh;
- The Jareer Library in Riyadh;
- The Real Estate Development Fund (REDF) in Jeddah;
- The Administration of the Jeddah Industrial Estate;
- Office of the Ministry of Agriculture in Al-Baha;
- The Al-Baha Municipality;
- The Al-Baha Emirate's Office;
- The Al-Baha Vocational Centre;
- The Al-Baha Roads' Administration;
- The Branch Office of Chamber of Trade in Al-Baha;
- The Branch Office of Ministry of Education in Al-Baha; and
- The Main Library in King Abdulaziz in Jeddah.

Published and unpublished materials and reports were collected

during these visits. Opinions were discussed with several responsible members of those institutions. All the secondary information gathered was utilised in later studies.

4.69 The next section will sum up the limitations of the applied data gathering methodologies and their potential consequences for the reliability of the resulting data, at least from the researcher's viewpoint: answering the seventh question (refer to P. 4.02).

LIMITATIONS OF THE APPLIED DATA GATHERING METHODOLOGIES

4.70 Although the possible limitations of the data gathering methodology applied have been mentioned throughout the chapter, a summary of the drawbacks is probably worthwhile at this stage. These are as follows:

i As demonstrated in Table Two, the initial intention was to conduct a questionnaire survey of 30% of the total number of factories on the Jeddah Industrial Estate. The share of each category of factory in the selected sample was intended to be equivalent to its share in the total factories on the estate, thus increasing the likelihood of obtaining a representative sample. Due to the fact that some of the selected factories were closed and no replacement was considered because of the limitations of time and resources, only 43 (or 23%) of the total factories in the estate were interviewed, instead of the intended 56;

ii Due to the absence of a directory map and lists of workshop locations in Al-Baha, only the 149 workshops that were situated on both sides of the Abha-Taif Road were interviewed. Clearly, no conventional sampling technique

was applied prior to selecting those workshops for study;

iii According to the Ministry of Industry and Electricity (1987), there were at least 14 factories operating in the Al-Baha region. Nevertheless, a survey was made only of the 8 factories known to the Al-Baha Chamber of Trade. Obviously, more information about market conditions and other matters could have been discovered if all 14 factories had been interviewed. Again, no conventional sampling technique was used in selecting those 8 factories for interview, but nothing better could have been accomplished under the circumstances since there were no directory, locational maps and/or addresses to enable contact to be made with all the factories in the region.

4.71 *Despite the above-mentioned limitations — which could not be overcome in the time, and with the resources available to this research, the studies conducted are considered reliable enough to illustrate and examine the potential viability of the proposed hierarchy of growth and development service centres in Saudi Arabia. The above drawbacks are listed for honesty as well as to demonstrate that not every forward-planned survey method and/or sample size can be accurately and easily achieved in the field.*

4.72 Having justified and described the selection of case studies and samples in this chapter, the next chapter will commence to utilise the data gathered. It will attempt to obtain lessons for Al-Baha and for the proposed policy from the two experiences of the Jeddah Industrial Estate and the Yanbu Light Industries' Park.

CHAPTER FIVE: LESSONS FROM GROWTH INITIATIVES WITHIN SAUDI ARABIA

5.01 *One of the basic functions attributed to the proposed hierarchy of growth and development service centres in Saudi Arabia is the non-oil manufacturing industries. This chapter is aimed at learning lessons for Al-Baha and for the proposed policy in general from prior industrial growth initiatives within Saudi Arabia. In order to achieve this, an overview is provided about the factors which gave birth to industrialisation in Saudi Arabia. Having done so, the experiences of the Jeddah Industrial Estate and the Yanbu Light Industries' Park are then examined: the selection of the study of these two areas in particular has already been justified in Chapter Four. The chapter concludes by extracting some lessons for Al-Baha and for the proposed policy.*

OVERVIEW

5.02 Oil exploration gave birth to the Saudi economy: this will be demonstrated in Chapter Six. With the discovery and subsequent development of crude oil deposits in the Eastern Province, Saudi Arabia emerged as a major supplier of energy to the world markets. Until 1970, energy supplies to the world markets by Saudi Arabia were in the form of non-processed oil, but soon also took the form of refined oil.

5.03 During the 1950s, Saudi crude oil production represented approximately 5% of total world output. It rose to 8% by the early 1970s. In the latter half of the 1970s, Saudi oil production fluctuated around 15% of the world output (Ministry of Planning, 3rd Dev. plan, 1980) – see Table One.

5.04 As shown in Table One, Saudi Arabia's global significance in oil is underlined by its position as the world's largest crude oil

storage and exporting country with about 25% of the world totals in 1978 and 1979 respectively. To look further ahead to the 1980s, the level of Saudi oil production is heavily influenced by the state of the world oil markets and OPEC policies. Since 1980, the year in which Saudi oil production peaked, its share in world production fell from 16.6% to 7.4% in 1984, and OPEC's share of world production fell from 45% to 31% over the same period (see Table Two).

Table One: World and Saudi Arabian Crude Oil Production, Exports and Reserves in the mid and late 1970s (million barrels per day)

	Production		Exports		Reserves	
	World	Saudi Arabia	World	Saudi Arabia	World	Saudi Arabia
1974	56.3	8.5	31.3	7.9	623	141
1975	53.4	7.1	28.5	6.6	659	145
1976	57.9	8.6	32.1	8.0	657	151
1977	59.9	9.2	32.3	8.6	646	169
1978	60.1	8.3	32.5	7.7	646	167
1979	62.5	9.5	32.7	8.8	642	167
	Percentages					
1974	100	15.1	100	25.2	100	22.6
1975	100	13.3	100	23.2	100	22.0
1976	100	14.9	100	24.9	100	23.0
1977	100	15.4	100	26.6	100	26.2
1978	100	13.8	100	23.7	100	25.8
1979	100	15.2	100	26.9	100	26.0

Source: Ministry of Planning, 3rd Development Plan 1980, Table 4.18, p. 167.

5.05 Setting aside the reasoning behind such decline in the Saudi oil production in both real and share terms, oil revenues made a direct impact on the physical and economic development of Saudi Arabia. Up to now, four Five-year Development Plans – covering the period between 1970 and 1990 – were adopted to guide the

Table Two: World Oil Production in Selective years.

	1975		1980		1984	
	M.B.D.	%	M.B.D.	%	M.B.D.	%
Saudi Arabia	7.1	13.3	9.9	16.6	4.3	7.5
OPEC (excluding Saudi Arabia	20.1	37.6	17.0	28.4	13.5	23.4
Non OPEC	26.2	49.1	32.8	55.0	40.0	69.2
Total World	53.4	100.0	59.4	100.0	57.8	100.0

Source: Ministry of Planning, 4th Development Plan 1985, p.149, Table 8.5.
- M.B.D. = Million Barrels per Day.

development of the whole country. Responding to the size of oil revenues, the First Plan, 1970-75, was a bit cautious about announcing government commitments to various expenditures due to the then uncertainty of the future of oil markets. The Second Plan, 1975-80, was more optimistic and thus laid the foundations for development in various fields: e.g. roads, schools, hospitals, ... etc. Due to the peaking market conditions and hence oil revenues at the end of the 1970s, the Third Development Plan, 1980-85, came into being with huge proposals for physical and economic development requiring a tremendous increase in government expenditure in order to implement them. One of them was the proposed policy of a hierarchical pattern of growth and development service centres to be spread throughout the country: the policy, the potential viability of which this thesis is aimed to examine. However, as Table Two shows, oil revenues declined in the 1980s causing some of the proposed projects to be deferred. Consequently, the Fourth Five-Year Development Plan, 1985-90, stressed the need to maintain the existing projects in light of the deteriorating conditions of oil production and hence revenues.

5.06 In light of the brief description of the broad strategies adopted by the four Five-Year development Plans in Saudi Arabia, one may correctly argue that the only reliable source of public expenditure is oil and its revenues: as mentioned previously, this will be demonstrated in Chapter Six. This was indeed a fact that responsible people in the Saudi Government have not denied since the oil exploitation era. Since the early days of formal planning for development in Saudi Arabia – i.e. the late 1960s, Saudis have been thinking of ways through which oil revenues could be used to develop other sectors so that the Saudi economy would not continue to be primarily dependant on oil. Accordingly, a constant national goal which has been repeated in all the presently adopted five-year development plans is calling for the diversification of the Saudi national economy. To highlight this, the First Development Plan (1970-75) had twelve industrial objectives of which number one was:

> "To diversify the economic activities to reduce the dependance on Petroleum as a major earner of foreign exchange, thereby leading to more balanced economic activity". (Central Planning Organisation, 1st Plan, 1970-75, p. 217)

About 15 years later, the Fourth Plan (Ministry of Planning, 1985-1990, p. 122)wrote:

> "One of the main long-term goals of development is to continue the real structural changes in the Kingdom's economy to produce a diversified economic base"

5.07 The main sector initially deemed to have great prospects of helping in diversifying the Saudi economy was manufacturing, both oil and non-oil. The Fourth Plan (1985, p. 122) continued the above quotation thus:

> " ... to produce diversified economic base, with due emphasis on industry and agriculture".

By the year 1970, several institutions were there to help in

developing oil and non-oil industries, with the Council of Ministers as the overall policy making authority. The principal agency was then called the Ministry of Industry and Commerce, responsible for the administration of the industrial programmes and for licensing the new manufacturing activities. The Industrial Studies and Development Centre (ISDC) was the special agency which was charged with the continuing study of non-oil industries and - together with the then Ministry of Industry and Commerce - administering the newly adopted industrial cities. Petromin was initially reponsible for major ventures in manufacturing based on Hydro-Carbon resources (Ministry of Planning, 3rd Plan, 1980).

5.08 To help in diversifying the Saudi economy, two policies were adopted to initiate the Saudi oil and non-oil manufacturing industries. They were as follows:

i A statement of Saudi Arabian Industrial Policy was issued by resolution of the Council of Ministers in early 1974 setting out the incentives and policies designed to promote industrialisation and the role of the private sector therein. As summarised by the Second Plan (1975-80, p. 173), the 1974 Saudi Industrial Policy Statement states:

> "In order to achieve the maximum economic and social benefits for the citizens of the Kingdom of Saudi Arabia from industrial development, the principles of industrial development shall be as follows:
>
> * To achieve a diversified economy, the government will adopt plans which will increase national income, lessen the impact of external economic disruptions, and open up new opportunities for the increasing technical capabilities and talent of the Saudi people.
> * The government recognises that the goal of industrial development can be realised most effectively if private enterprises bear the primary responsibility for industrial projects.
> * The government will provide encouragement and incentives to industrial investors to enable well managed companies to realise reasonable returns

from operations. Such incentives may include the following measures:

* Equity Capital Loans;
* Venture Organisation Assistance;
* Tariff exemption on Imported Materials and Equipment;
* Tax Incentives
* Tariff Protection from Imported Products;
* Industrial Estate Sites; and/or
* Training Subdidies for Saudi Manpower".

The subsequent initiation of the early industrial estates in Riyadh, Jeddah and Dammam and of the industrial cities of Jubail and Yanbu was merely spatial interpretation and application of the above described 1974 Industrial Policy Statement. However, development of these areas where incentives have been concentrated was the second step towards developing manufacturing industry and hence helping in the diversification of the national economy; and

ii Besides the above mentioned wide range of incentives provided in these industrial estates and cities, the later established Saudi Industrial Development Fund (SIDF) provided interest-free loans accounting for up to 50% of the estimated costs of intended manufacturing enterprises.

5.09 By early 1975, the the industrial cities of Jubail and Yanbu were available to cater for oil and non-oil industries - in separate parks. The industrial estates increased to eleven by 1986: Five developed (in Jeddah, Riyadh, Dammam, Qassim and Hail) - the one in Makkah was underdeveloped - and Five were proposed strongly, committed to (Madina, Asir, Hail, Jouf and Tabuk) (The Saudi Consulting House 1986). All the five operating estates and the two non-oil industrial parks in Jubail and Yanbu are there to help in stimulating the creation of individual enterprises from scratch and, consequently, to help in diversifying the national

economy. However, it is worthwhile mentioning that, despite their existence in various regions, the industrial estates and cities are there for national aims rather than for regional equity. Two points can be put forward. First, they are there to help 'diversifying the national economy'. Implicitly, these areas would be considered successful if they improved the GNP even at the expense of some regions. Secondly, being established primarily for helping the national economy, the industrial cities and estates were concentrated mostly in urban areas which were considered to have the potential for success in that aim.

5.10 Clearly, the ideas of concentrations and incentives in Saudi Arabia were imported from Europe where they were applied in the 1960s. Such policies were applied in Europe to stimulate the creation of new enterprises and shift existing ones from one area to another. In Saudi Arabia, the policy has to stimulate the creation of new enterprises and consequently to initiate the Saudi manufacturing industry: a more difficult, time and resource consuming, task than in Europe. Nevertheless, the experiences of Jeddah and Yanbu in particular – as explained in Chapter Four – will be studied in the next section, not for the purpose of evaluating their success in helping the Saudi national economy but rather for learning lessons for the newly proposed policy of growth and development service centres, with particular reference to Al-Baha – one of the backward regions which the policy is primarily proposed to help.

THE JEDDAH INDUSTRIAL ESTATE

OVERVIEW

5.11 Jeddah, with a current population of over a million, approximately equal in terms to Riyadh – the capital city – of both

the number of inhabitants and physical size. Located at the centre of the most populated region of the country (see Figure One), it is of prime significance both socially and economically to the whole nation. Its primary function is as the major national sea-port.

> "Some 80% of foodstuffs consumed in the kingdom arrive through the port of Jeddah" (Sert Jackson, 1980, p.8).

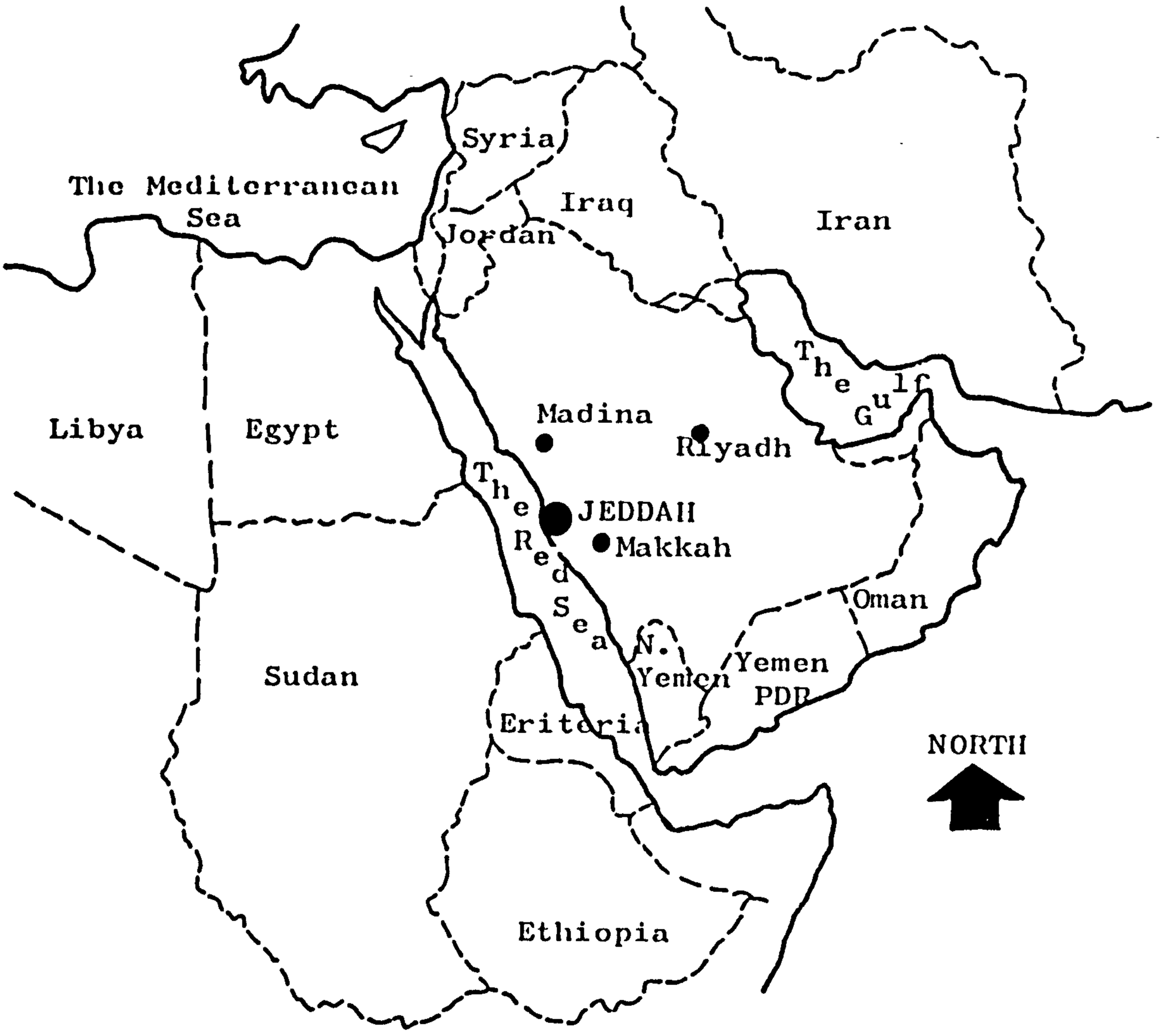
5.12 Being at the centre of the most populated region and favoured by its seaport location, Jeddah was chosen by the pre-1975 Ministry of Industry and Commerce - now the Ministry of Industry and Electricity - as an area to which industrial development could be attached, in particular the types of industries which relied heavily on imported raw materials.

5.13 Indicative of the national importance and scale of Jeddah is the fact that approximately 28% of the government's aggregate project expenditure was invested in the city during the Second and Third Development Plans, 1975-85. This implies that infrastructure and other facilities which could help urban and industrial development to take place were being better provided in Jeddah than in many other cities since the mid and late 1970s. Besides direct government investments, Jeddah has other potentials which it could show dependant on non-governmental expenditure; e.g. trade institutions and business, pilgrims, tourists to the historical CBD. Concerning this, Sert Jackson (1980, p.8) wrote:

> "Jeddah, by virtue of the relative maturity of its economic base and by virtue of its port and regional location, is not so dependant on government investment and direction of funds and resources as other regions and cities in the Kingdom. Its further growth, therefore, is likely to be less susceptible to changes in government policy or national fortune than other cities and regions"

Accepting that, this probably represents a fundamental difference

Figure One : The National Setting Of The Jeddah City



Approx. Scale = 1:400,000

Source : Sert Jackson : Master Plan For Jeddah, 1980. P.7.

between Jeddah and Al-Baha in terms of abilities to grow as well as to retain population and economic generators.

5.14 Due to the prospects and potentials which Jeddah was considered to have for the development of non-oil manufacturing industries, the Jeddah Industrial Estate was established in the Southern part of the city in particular (see Figure Two), probably for the following reasons:

i Large tracts of vacant land were available for current use and future expansion in the South;

ii The South has easy accessibility to the Port of Jeddah through which raw materials and domestically finished manufactured products can be transported;

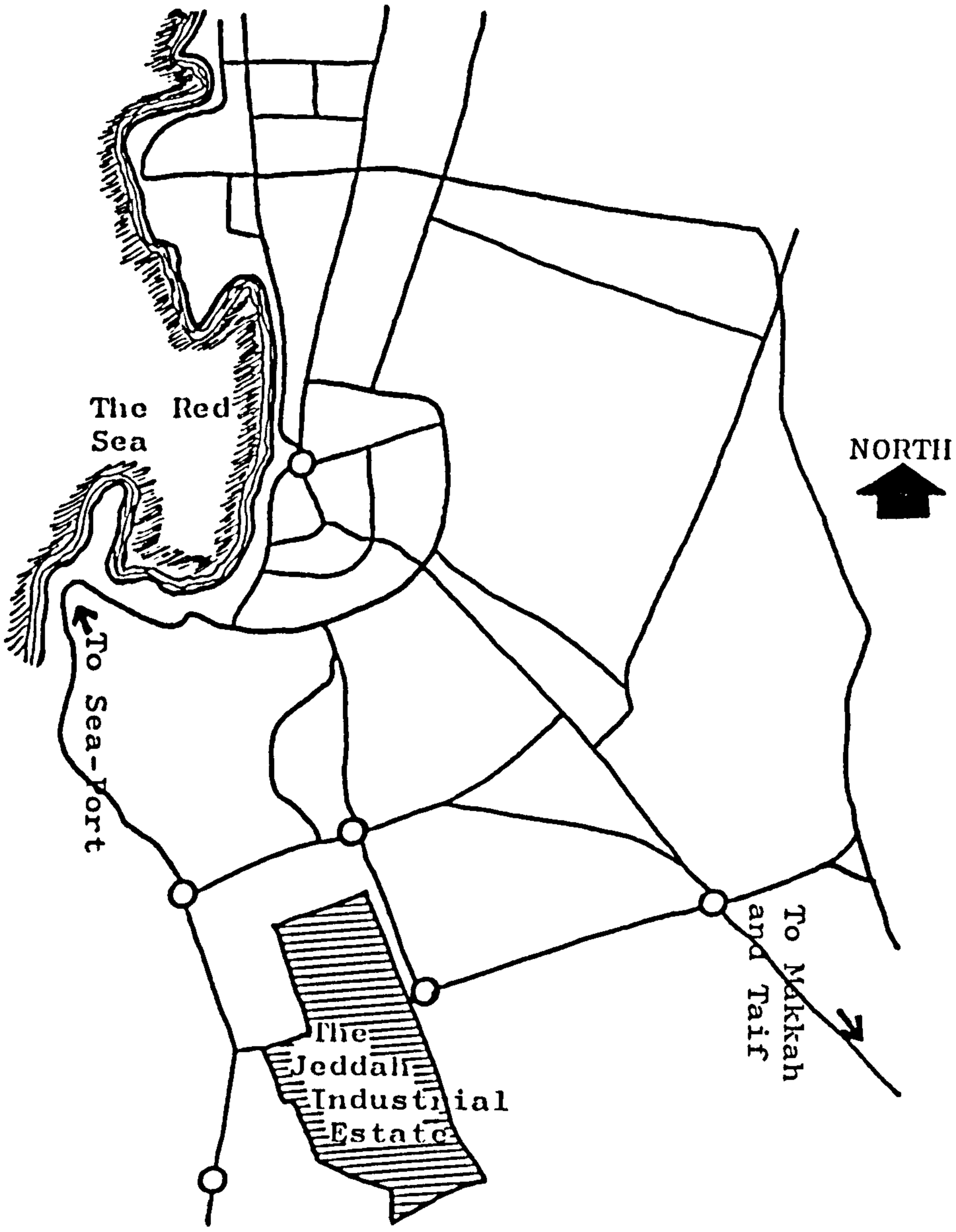
iii The prevailing wind blows from North-West to South-East in Jeddah. Locating factories here would not pollute the atmosphere of the built-up areas;

iv By locating in the South of the city, the industrial estate would not interrupt the direction of urban development and city expansion which mostly occurred towards the North;

v By locating within easy access of the sea, the cost of extending the pipes from the original desalination plant would be minimised; and

vi By locating outside the city with good access to main highways, heavy traffic used to transport products from the estate to other parts of the country would not add to the growing traffic congestion in the city. 5.15 In terms of area covered, the Jeddah Industrial Estate increased in size from 1.04 million square metres in 1975, to more than seven fold (i.e. to 7.86 million square metres) in 1985. (Ministry of Planning, 4th Plan, 1985-90). Comparative and complementary

Figure Two : The Urban Setting Of The Jeddah Industrial Estate Within The Jeddah City

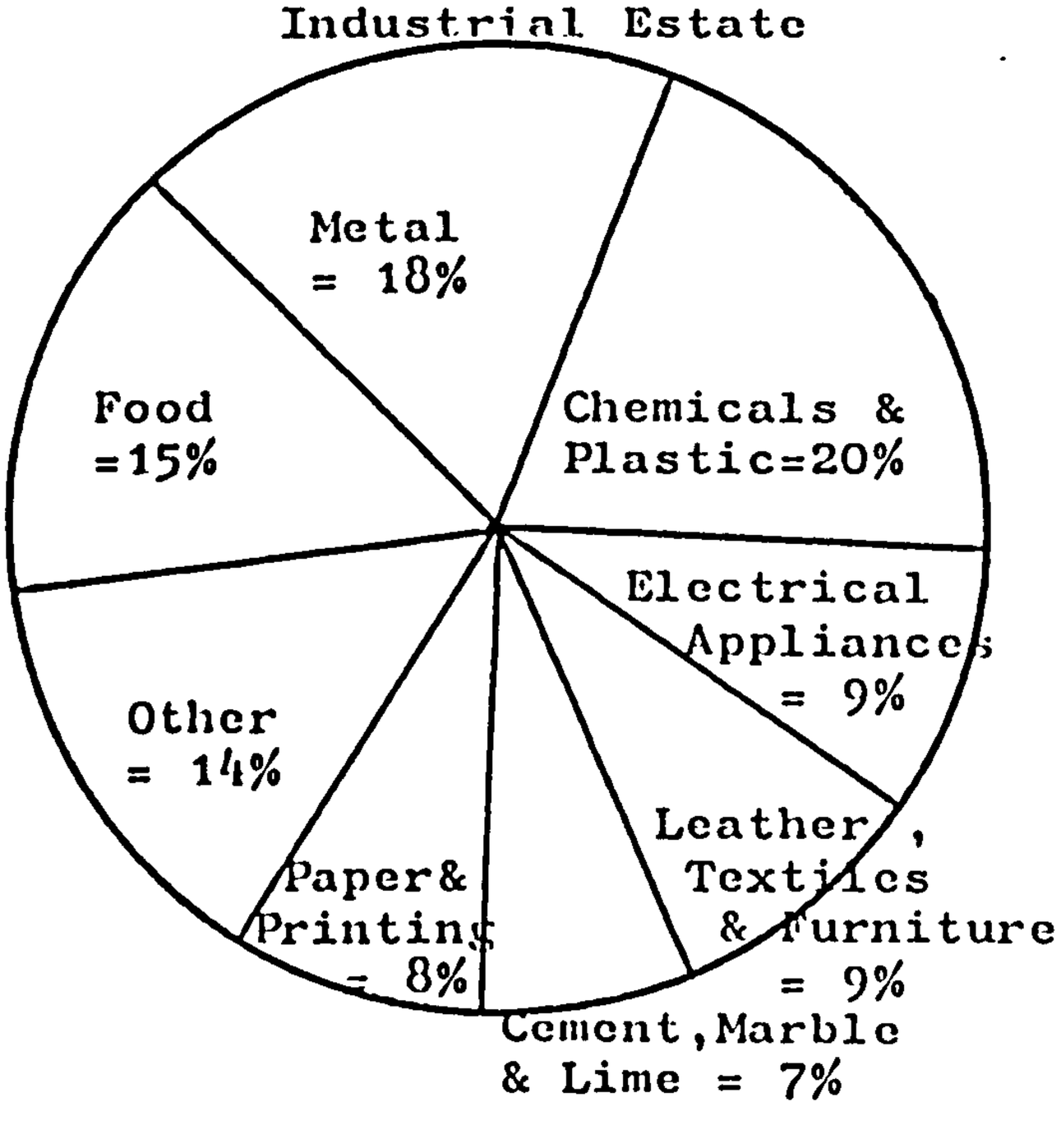


data concerning parallel change in total enterprises, role in national economy and change in total employment provided by the estate are not available. Therefore, it is extremely difficult to evaluate the performance of the estate from any of these perspectives. Fortunately, this has little effect in relation to the purpose of this thesis.

5.16 As highlighted in Chapter Four, according to the map prepared by Bajbair 1983, there are 188 factories in the Jeddah Industrial Estate: 29 (or 15%) are for foodstuffs; 16 (or 9%) are leather, textiles and furniture; 15 (or 8%) are in paper and printing; 38 (or 20%) chemicals and plastic; 33 (or 18%) metals; 16 (or 9%) electrical appliances; 15 (or 7%) cement, marble and lime; while the remaining 26 (or 14%) are classified under the category of 'others', since they do not fit any of the above mentioned categories. Figure Three illustrates the composition and share of these categories in total factories in the estate.

5.17 According to the same map and the information attached to it, 110 (or 59%) of total factories in the estate, are classified as having purely Saudi capital investment, while the remaining 78 factories (41% of the total) have up to 50% foreign capital investment: i.e. in joint ventures with non-Saudis. The map also states that 22 factories are under development, of them 21 (or 95%) have purely Saudi capital investment. This reveals that Saudis are gradually accepting the burdens of establishing individual enterprises. In this respect, one could recall Richardson's (1969)argument that concentrated enterprises in Spain would spread the awareness of the importance of industrialisation as a fact of life among people and, accordingly, would gradually erode social conservatism against industrialisation.

Figure Three : Share Of Categorized Factories In The 188 Operating Factories In The Jeddah Industrial Estate



5.18 Having introduced general information about Jeddah city and its industrial estate in particular, attention will now be devoted to utilising the data gathered during the researcher's questionnaire survey (April and May, 1988). The methodology by which the 43 factories interviewed in the Jeddah Industrial Estate were sampled has been thoroughly explained in Chapter Four.

DETAILED STUDIES

Saudi and Non-Saudi Employees

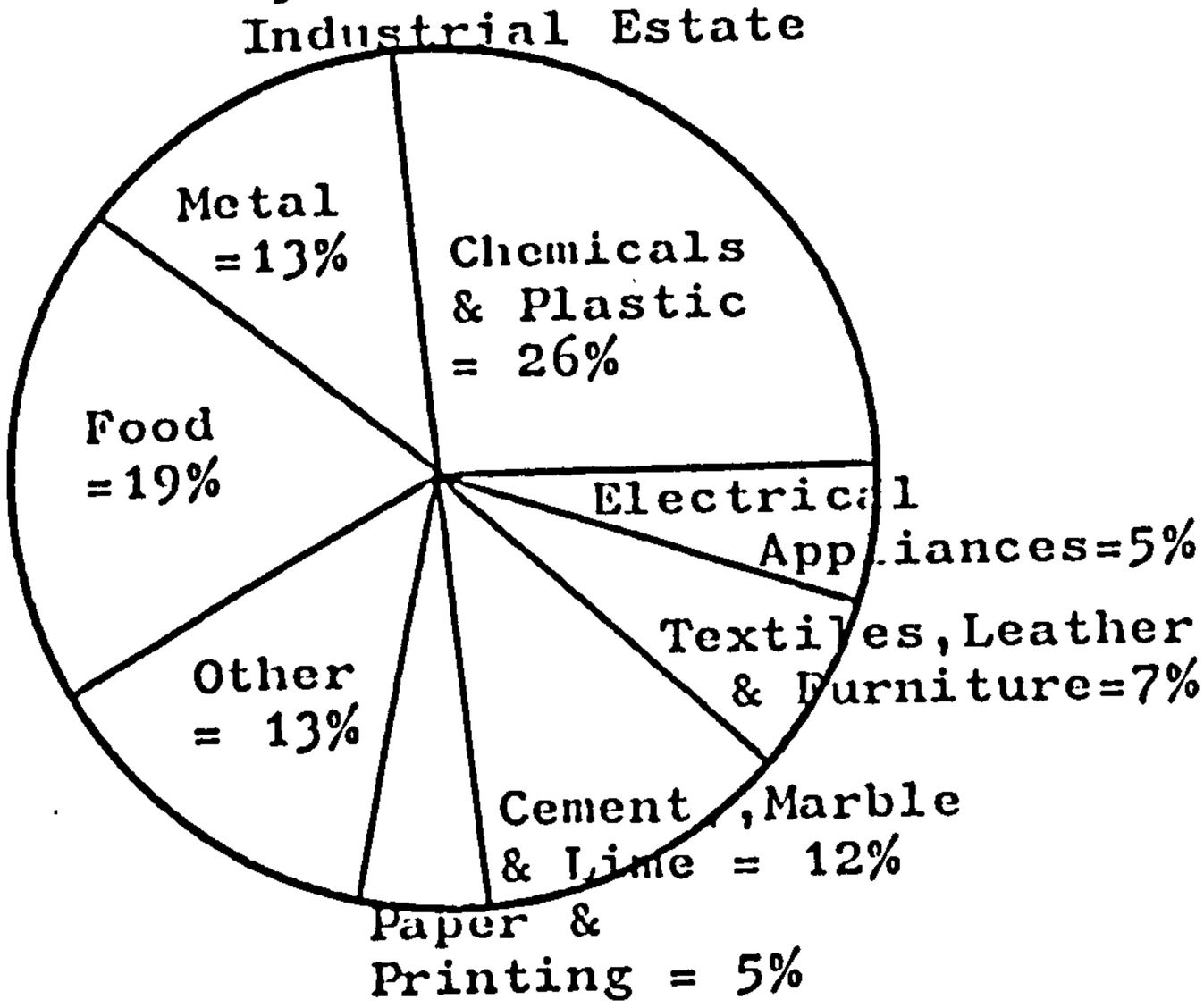
5.19 Among the 43 factories interviewed, 8 (or 19%) are for food,

11 (or 26%) chemicals and plastics, 5 (or 12%) cement, marble and lime, 6 (or 13%) metals, 3 (or 7%) textiles, leather and furniture, 2 (or 5%) electrical appliances, 2 (or 5%) paper and printing, while the remaining 6 (or 13%) can be classified as 'others', since they do not fit any of the other categories in the sample. Figure Four illustrates the shares of different categories in the achieved sample: i.e. in the 43 factories which were successfully interviewed. It shows a picture which is not significantly different from that shown in Figure Three, which illustrated the share of factory categories of the total 188 factories in the estate. This was intended, for the reasons stated in Chapter Four.

5.20 As shown in Table Three, a total of 3,417 persons were employed by the 43 factories interviewed in Jeddah. Of that total, only 431 employees (or 13%) are Saudis, while the remaining 2,986 employees (or 87%) are non-Saudis. Of the 431 Saudis employed by factories in the sample, 255 (or 59%) are administrators, 73 (or 17%) are workers and 103 (or 24%) are technicians (see Table Three).To highlight what is meant by these three descriptions, an administrator is an employee who works in the office to process paper work and has no direct participation in handling equipment and machinery on the factory floor. He may control and supervise levels of production but is not a skilled manual worker. The person who is actually in charge of the skilled work is called a technician, while workers, i.e. labourers, assist in movement of equipment and final products.

5.21 It can be satisfactorily accepted at this stage of the Kingdom's development that as many as 255 Saudis work as administrators in the 43 factories interviewed (see Table Three). However, what should be seriously questioned is the fact that Saudi

Figure Four : Share Of Categorized Factories In The 43 Interviewed Factories In The Jeddah Industrial Estate



Source : Justifiably Calculated In Chapter Four

workers and technicians form, collectively, only 5% of the total number of employees in the factories interviewed. To assist in the discussion of this matter, reference should be made to Table Four. The use of computer software packages enabled the correlation (i.e. association) to be measured between the average Saudis employed as workers and technicians by the factories categorised on the one hand and the average salary paid by the factories in each category to a worker or technician on the other (i.e. between C3 and C4 in Table Four), as being equivalent to 0.6. This means that there is a significant positive association between the number of Saudi

Table Three: Employment Structure and Level of Salaries Paid by the factories interviewed in the Jeddah Industrial Estate.

Factories Category	Total	Total Employed	Saudi Employees A	B	C	D	Average Salary E
Food	8	1303	108	50	84	242	2,370
Textiles Leather & Furniture	3	217	15	1	1	7	1,833
Paper & Printing	2	71	10	1	3	14	1,550
Chemical & Plastics	11	823	60	12	8	80	2,173
Cement, Marble & Lime	5	366	25	4	4	33	2,060
Structured & Fabricated Metal	6	292	13	1	2	16	1,600
Electrical Appliances	2	145	8	2	0	10	1,900
Others	6	200	26	2	1	29	2,117
Totals	43	3417	255	73	103	431	2,036*

A = Administrators
B = Workers
C = Technicians
D = Total of Saudi Employees
E = for Technicians or workers (in Saudi Riyals/Month)
* = The true mean

Source: A questionnaire survey carried out by the researcher in April, 1988.

workers and technicians in the factories samples and the level of monthly salary paid to each of them. It is accepted that because correlation or association in behaviour of values changes this does not necessarily mean the existence of causal relations. But, what if we apply a regression test?

Table Four: Average Saudi Technicians and Workers Assigned to Individual Categories of the Factories Interviewed in the Jeddah Industrial Estate.

	C_1	C_2	C_3	C_4
Food	8	134	16.75	2,370
Textiles Leather & Furniture	3	2	0.00	1,833
Paper & Printing	2	4	2.00	1,550
Chemical & Plastics	11	20	1.80	2,173
Cement, Marble & Lime	5	8	1.60	2,060
Structured & Fabricated Metal	6	3	0.50	1,600
Electrical Appliances	2	2	1.00	1,900
Others	6	3	0.50	2,117
Totals	43	176	4.09	2,036*

C_1 = Share in the total of factories in the sample
C_2 = Number of Saudi Technicians and Workers
C_3 = Number of Saudi Technicians and Workers ÷ Number of factories in the categories concerned
C_4 = Average monthly salary paid to a technician or worker (in Saudi Riyals)

* = The True Mean

Source: Developed from Table Three

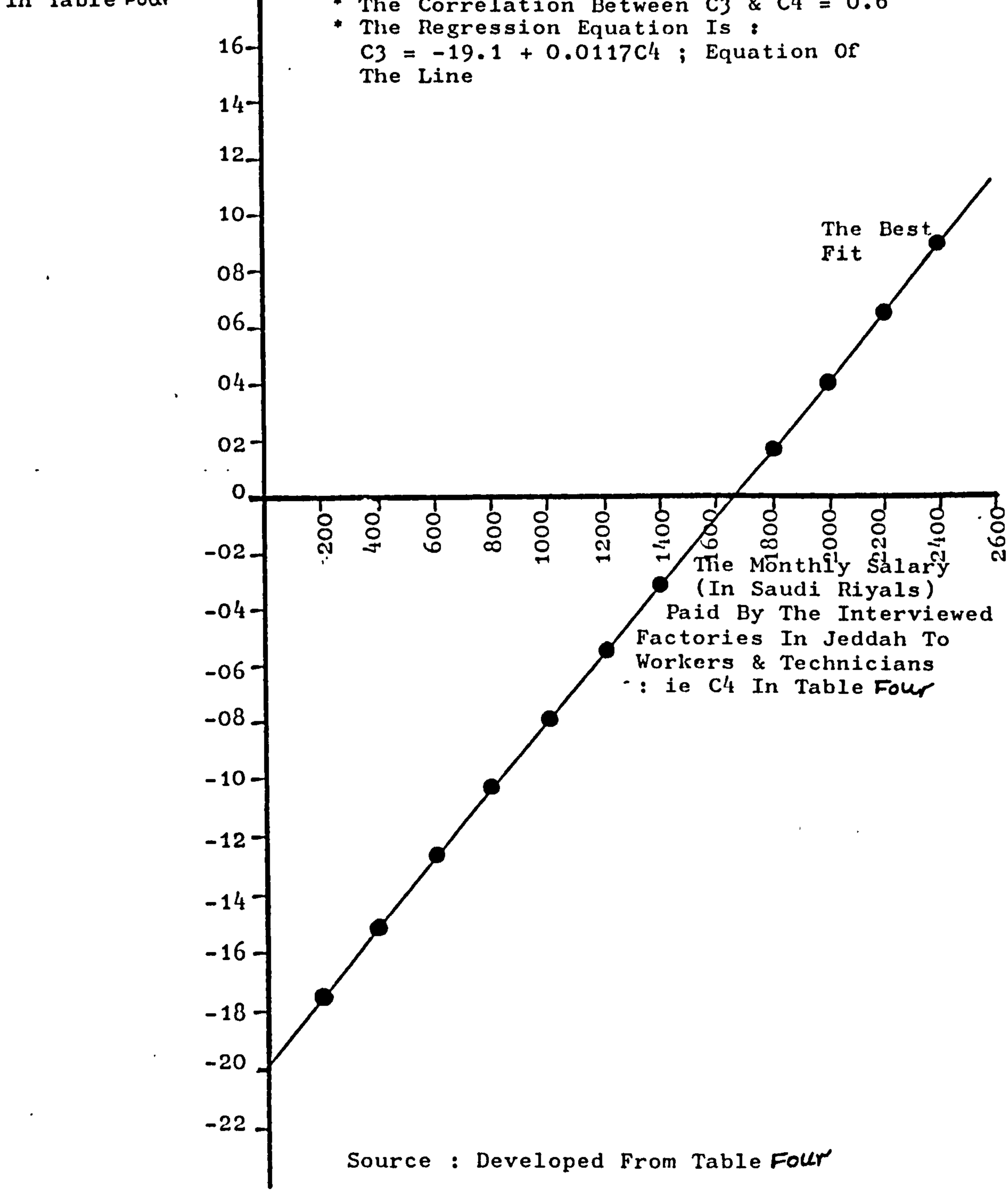
5.22 Despite the variety of opinions about the ability of regression tests to demonstrate the existence of causal relations between variables, it is believed here that this test can assist tremendously in finding whether Saudis tended to work as workers and/or technicians in the factories interviewed in light of the level of salaries paid. However, two points should be stressed

here; first, having first found that correlation or association between values in C_3 and C_4 in Table Four is positively significant, it is then logical to apply regression tests and see whether such a significant correlation has a causal meaning and, second, if the regression test showed a sort of causal relation between the variables mentioned then this should not be generalised but only connected with the data available that concern only the conditions in the factories interviewed, at the time of data collection in particular.

5.23 The computing packages found the regression equation between variables shown in C_3 and C_4 (Table Four) as $C_3 = -19.7 + 0.0117\ C_4$, where C_3 signifies the average number of Saudi workers and technicians per category, while C_4 signifies the average salary per worker or technician per category (refer to Table Four). Figure Five uses this equation – which is relevant only to the data in Table Four – to draw the line that has the possible fit among readings in C_3 and C_4 in Table Four. This line (see Figure Five) shows clearly that, according to the given values, no Saudi person tends to accept a job in these factories unless the salary paid is around 1,600 Saudi Riyals per month. Figure Five also reveals that, according to the given values, when the monthly salary rises to 2,800 Saudi Riyals, the number of Saudis who accept jobs for technicians and workers in these particular factories increases by 14-fold as compared with those who are prepared to accept the figure of 1,600 Saudi Riyals per month. However, as stressed above, these arguments relate only to those particular data and cannot be generalised to other cases. The case of Yanbu, for example, will show an adverse picture, as will be highlighted in the next section. Finally, the test is unable to show whether

Figure Five : The Line That Has The Best Straight Fit Between The Paired Statistics About No. Of Technician & Worker Employees In One Hand & The Salaries Paid By The Interviewed Factories In Jeddah On The Other

* The Correlation Between C3 & C4 = 0.6
* The Regression Equation Is :
  C3 = -19.1 + 0.0117C4 ; Equation Of The Line



Source : Developed From Table Four

every Saudi who applies to these factories is automatically accepted. In other words, it is not possible to discern the role of factories who provide the minority of jobs for Saudis either as workers or technicians from this line in Figure Five.

5.24 In relation to the particular factories interviewed in Jeddah, the level of salary seems to have a causal relationship with the difference in the total number of Saudis engaged in various categories. The values shown in Table Four support this argument. The Table shows that the highest average of Saudi workers and technicians are employed in factories in the Food category, which also offer the highest average monthly salaries. Conversely, the lowest averages in salaries and Saudi employees are shown to be in the categories of Metals and Others.

5.25 Accepting this causal relationship between the number of Saudi workers and technicians on one hand and the salaries offered by these particular factories on the other, are there other factors that can account for the low number of Saudis in the total workforce of these 43 factories? There are at least four other factors, as follows:

i Unemployment, as experienced in the Western industrialised nations, is not yet a problem in Saudi Arabia: this will be demonstrated in Chapter Seven. Public sectors still provide less demanding and more generously paid jobs than those provided by private industry. More than 50% of the total number of employees in Saudi public sector jobs are foreigners. Educational and training centres are provided by the government throughout the whole country so that Saudis can become skilled enough to occupy the positions currently occupied by non-Saudis in both the private and public

sectors. Therefore, better opportunities are still abundantly available to Saudis. This is believed to be the cause of delay in effective participation of Saudis in industrialisation until some 15-20 years from now;

ii Social conservatism against effective participation in industrialisation in general, and against working as manual workers or technicians in factories in particular, is a fact that will probably be eroded as people accept industrialisation as a new fact of life, as gradually happened in Spain (refer v. in P. 2.116): this will be demonstrated in Chapter Seven;

iii As shown above, factories tend to provide low salaries for workers and technicians and comparatively much higher salaries for administrators. Besides this, workers and technicians are in the main required to continue working throughout the whole week due to the costs of stopping and restarting some machines. This probably leads Saudis to put the alternative of taking a job as a worker or technician in a factory very low on their list of choices, since – as argued above – less demanding jobs are still easily available; and

iv Factories prefer to import cheaper labour from countries abroad which have an abundance of labour and high unemployment rates. To push down unemployment in Norway – as described in Chapter Two, the Norwegian government subsidised factories in accordance with the number of people they employed. Although this was attributed in Chapter Two to hidden political purposes, this led to lower unemployment rates and hence to better social equity. This poses the

question: Does the Saudi government need to compensate private factories on the basis of numbers of Saudis employed or simply leave market forces (i.e. supply of jobs and demand for jobs) to encourage Saudis to more effective participation in such industrial jobs?

5.26 However, this situation should not be viewed pessimistically. Saudi Arabia is really passing through a transitional stage of development. Money became suddenly available in large quantities, and imposed educational and other developments. In time, unemployment could become a serious problem. Meanwhile, people are becoming better educated and the role of private sectors and involvement in industrialisation, as workers and technicians, could be more acceptable. It is difficult to predict when this is likely to happen due to many economic and social variables for which exhaustive studies - beyond the aim of this thesis - are needed. However, the next sub-section will proceed to analyse miscellaneous conditions regarding the operation and experience of the factories interviewed in the Jeddah Industrial Estate: this will directly benefit in learning lessons for the proposed hierarchy of centres and for the Al-Baha region as a case study

MISCELLANEOUS ISSUES

5.27 This sub-section is intended to provide and comment on aspects related to marketing and other issues concerning the Jeddah Estate's 43 factories which were involved in the questionnaire survey carried out. Together with the former sub-section, this - as argued above - will assist in providing lessons for the proposed

policy of concentrations and their possible implications on Al-Baha.

5.28 Of the 43 factories in the sample, 27 (or 63%) were established as recently as the early and mid 1980s; 14 (or 33%) in the mid and late 1970s, while 1 was established in 1969 and 1 in 1955. Two arguments can be raised regarding this; first, according to the survey, most of these individual non-oil industries are immature and relatively young and, second, owing to the fact that 10 (or 63%) of the 16 factories established prior to the 1980s but only 5 (or 20%) of the 27 factories established in the early and mid 1980s are in joint venture with foreign investments, one can argue that Saudi businessmen gained a gradual confidence and hence tended to participate more in the effort of establishing purely Saudi individual enterprises in the Jeddah Industrial Estate.

5.29 In terms of the original locations of the factories interviewed, 35 (or 81%) were initially established in the Jeddah Industrial Estate for common reasons such as the availability of various incentives and accessibility to the sea-port and to highways. Surprisingly, all of them were established in the early and mid 1980s, when incentives provided for industries in the Estate became well-known to the average Saudi citizen. The other 8 factories were initially established outside the Estate, 7 of which were located within the same city of Jeddah. Of these 8 factories which relocated on the Estate, 4 (or 50%) were forced out of their original locations by factors such as lack of space and poor accessibility to markets rather than being enticed by the Estate and its incentives in the first place. Three of the remaining 4 factories were drawn to the Estate by the incentives provided there, while the fourth was attracted from Alkhobar city - in the

Eastern province – to Jeddah and its markets and then to the Jeddah Industrial Estate and its incentives. However, 6 of the 8 factories which relocated on the Estate were intially established outside the Estate area prior to the implementation of the Estate and its incentives. It is important here to report that none of the 35 factories which established originally on the Estate – nor any of the 8 factories which moved to the Estate – was drawn to the Estate by factors related to gaining benefits from functional linkages with other concentrated factories, but rather mainly by factors related to incentives and advantageous accessibility. This should have led to a reduction of the advantages of external economics which help concentrated functionally-related industries to develop, due to the role of the Perroux's propulsive industry. This argument will be referred to again.

5.30 Summing up their objectives, 26 factories (or 60% of the total in the sample) are operating in the Estate primarily to achieve profits. The other 17 (or 40%) are there primarily to invest in the Estate so that local markets can be free of complete reliance on similar exported products. Thus, less than half of the factories interviewed have aims that meet or follow the national long-term goal of achieving self-sufficiency in wide ranges of products.

5.31 In terms of profit achievements, only one factory (established in 1975 and moved to the Estate later) admitted serious consecutive losses. The 10 factories established from the early 1980s onwards (i.e. 23% of sample) claim that they have not achieved the break-even point, but have high prospects of achieving this soon. The remaining 37 factories which were established prior to late 1981 did achieve profits. Of them, 19 (or 59%) which

manufacture building and constructional materials admitted that their profits have been decreasing since 1984. They mainly attributed those losses to the gradually stagnating construction markets. Standing out from all that, two points can be highlighted; first, factories in individual and group terms require time to achieve profitability after compensating for the initial costs and, second, factories are subject to loss or gain and therefore to closure or continuous functioning respectively. Thus, factories are not guaranteed permanent means for economic generation and/or sources of employment in a particular area.

5.32 In terms of raw materials, 22 factories (or 51% of sample) import 100% of their raw materials from abroad, particularly from Europe and the USA, 6 (or 14%) import between 95% and 98% of their raw materials from abroad, while 8 (or 19%) import between 60% and 80% from abroad. The remaining 7 factories (or 16% of sample) import only between 2% and 10%: 2 of them manufacture chemical-related products while the other 5 manufacture concrete products. Therefore, in aggregate terms, 36 factories (or 84% of the sample) import between 60% and 100% of their raw materials from abroad. This threatens such industries with losses due to, first, fluctuation of prices of raw materials in the countries from which they import and, second, any possible depreciation in the value of domestic currency against the currency of the countries from which they import. To compensate for losses due to any or both of these two factors, factories may tend to increase their finished product prices which could lead to decrease in demand for them, and then to lower cash income which could ultimately lead to closures. Examples of these currency changes will be put forward later in this chapter.

5.33 Of the 43 factories interviewed in Jeddah, 16 (or 37%) sell their products in all regions of the country, 7 (or 16%) sell within the Western region, 7 (or 16%) sell within the country and export to the Gulf countries, 6 (or 14%) export to Arab countries as well, while the remaining 7 (or 16%) sell only within the city of Jeddah. In light of this, only 13 factories (or 30% of the sample) export to countries abroad; 4 of which are food, 3 chemicals and plastics and the remaining 6 belong to the other category of 'others'. On the other hand, 14 factories (or 33% of the sample) sell within the Western region and therefore are unable to attract revenues from other regions. However, the whole Estate is there, as argued previously, for national aims rather than for regional equity.

5.34 In terms of market competition, 29 factories (or 67% of the sample) suffer from aggressive competition with similar imported products, 4 concrete factories (or 9%) have only internal competition with small unlicensed factories which do not abide by the required specifications and standards and sell at lower prices, while the remaining 10 factories (or 24% of the sample) do not face any competition at all - either due to being service industries (e.g. printing) or manufacturing in bulk materials such as Barrels or Marble

5.35 In order to protect and help domestic industries to make profits, tariffs of 20% are imposed on finished imported products if the domestic product is similar in quality and quantity. On the other hand, 12% tariffs are applied to the imported raw materials with some exceptions, as will be highlighted later. However the 29 factories (67% of the sample) who face aggressive competition with similar imported final products are by and large importing

more than 60% of their raw materials from abroad. Therefore, the protection afforded by the application of the 20% tariffs on similar imported products is weakened by the application of the 12% tariff on the imported raw materials in terms of profitability and revenues gained by these factories. Exemptions from tariffs on raw materials are considered, but only if the country has not achieved self-sufficiency in the products concerned. In other words, the applied tariff policies encourage industries to produce up to the stage of national self-sufficiency, but beyond that materials would become more expensive by application of the 12% tariff. Two points are worth mentioning regarding this; first, it is hard to define a clear line to indicate national self-sufficiency of a domestic product. People's tastes preferences and needs change with time. Their propensities to consume change with these variables as well as with changes in their levels of income. Therefore, judgement on whether the nation has reached a stage of self-sufficiency in a certain product tends to be based on subjective measures.

5.36 The second point which can be mentioned with regard to the application of the 12% tariff on raw materials where the country has achieved self-sufficiency in the product concerned is that, the export-oriented industries which rely on imported raw materials would be discouraged from producing to exporting levels. This would lead to missing the value-added which would bring revenues to the national GNP from the overseas countries to which the exports would otherwise go. Therefore, the goal of 'self-sufficiency' adopted by the development plans should have been considered as a step towards achieving a more optimistic long-term goal such as 'improving exports to overseas countries'. This would help in

developing the economy as a whole by increasing the revenues to the nation from external markets.

5.37 In terms of relocating in Al-Baha – the study region, 41 factories (or 95% of the sample) do not wish to relocate there even if the incentives in Al-Baha were better than those available in Jeddah. Their reasonings can be summed up as follows:

i It is costly to move a factory which is already built unless conditions deteriorate in the area in which the industry already exists;

ii They mostly see market conditions in Al-Baha as comparatively weak;

iii Jeddah is closer to the sea-port through which raw materials and possible exports to overseas countries could be easily transported;

iv Comparatively, Jeddah is more accessible not only to external markets but also to reliable internal markets; and

v Al-Baha has nothing better to offer than Jeddah in terms of basic requirements for successful industrialisation – e.g. raw materials, skilled labour, ... etc.

On the other hand, most of these 41 factories would seriously consider having distributors in Al-Baha whenever market conditions were appropriate. However, if Al-Baha relied only on such final product distributors from Jeddah and other areas in the future rather than having its own local independent manufacturers, then the region would continue to miss the multiplier effect of money which would otherwise help in building economic development generators within the region, and hence help the development of the local economy in the long run.

5.38 The other 2 factories (other than the 41 mentioned above)

interviewed in Jeddah would relocate in Al-Baha if the incentives there were similar to those available in the Jeddah Industrial Estate. However, these 2 are unable to compete directly with similar imported final products. They believe that Al-Baha markets, however small they may be, are not directly influenced by imported products and, hence, they would be able to make a profit if they relocated there. Therefore, those 2 factories – should they relocate in Al-Baha – would be pushed by conditions in Jeddah rather than pulled by better marketing conditions in Al-Baha.

5.39 In terms of functional linkages among factories, 33 factories (or 77% of the sample) have no linkage with each other nor with any domestic factory outwith or within the Estate. Five factories (12%) have functional linkages with large factories locating outwith Jeddah – in the form of buying raw materials from SABIC (the oil-related company) in a single case and from the Yanbu Cement Factory in the other 4 cases. Five factories (or 12% of the sample) buy packing material from the plastic factories which exist within the Estate. Needless to say, due to the almost total absence of functional linkages between factories in the Jeddah Estate, advantages of external economies which concentrated functionally-related industries enjoy in the shadow of their Perrouxian Propulsive industry have no suitable climate to take their place among the non-functionally-linked factories in the Jeddah Estate. This enables the argument that although the factories interviewed physically locate within the same Estate, development of a single factory logically has nothing to do with the development of the others – apart possibly from the few cases where packing materials are bought from plastic factories within the Estate. Furthermore, these factories have no functional-

linkages with other sectors of society or institutions in the surrounding areas within Jeddah. Accordingly, the Myrdal and Hirschmann's trickling down and spread mechanisms of benefits to surrounding areas are probably negligible.

5.40 In terms of adequacy of facilities, none of the 43 factories interviewed in the Jeddah Industrial Estate admitted tangible problems in terms of electricity, telephone, sewerage and other infrastructural facilities provided in the Estate. They reported that the Ministry of Industry quickly processed the applications for building and/or expansion without charge. However, the 17 factories (40% of the sample) which consume large quantities of water for their operational needs suffer through shortage in the water supply. To fill the gap between need and supply, they tend to transport water long distances. They believe that this increases their costs, and sometimes slows down their production.

5.41 Finally, having highlighted miscellaneous matters regarding conditions shown by the experience of factories in Jeddah Industrial Estate in individual and collective terms, these experiences will be used - besides the experiences of the Yanbu non-oil industries - to extract useful information for Al-Baha and for the proposed policy of concentration. Prior to that, the case of Yanbu will be studied followed by a comparative glance at the experiences of concentrations in Jeddah and Yanbu.

THE YANBU INDUSTRIAL CITY

OVERVIEW

5.42 For thousands of years, the small town of Yanbu Al-Bahr nestled quietly on the Red Sea coast. Ideally located on the caravan route used by merchants making their way to the markets in

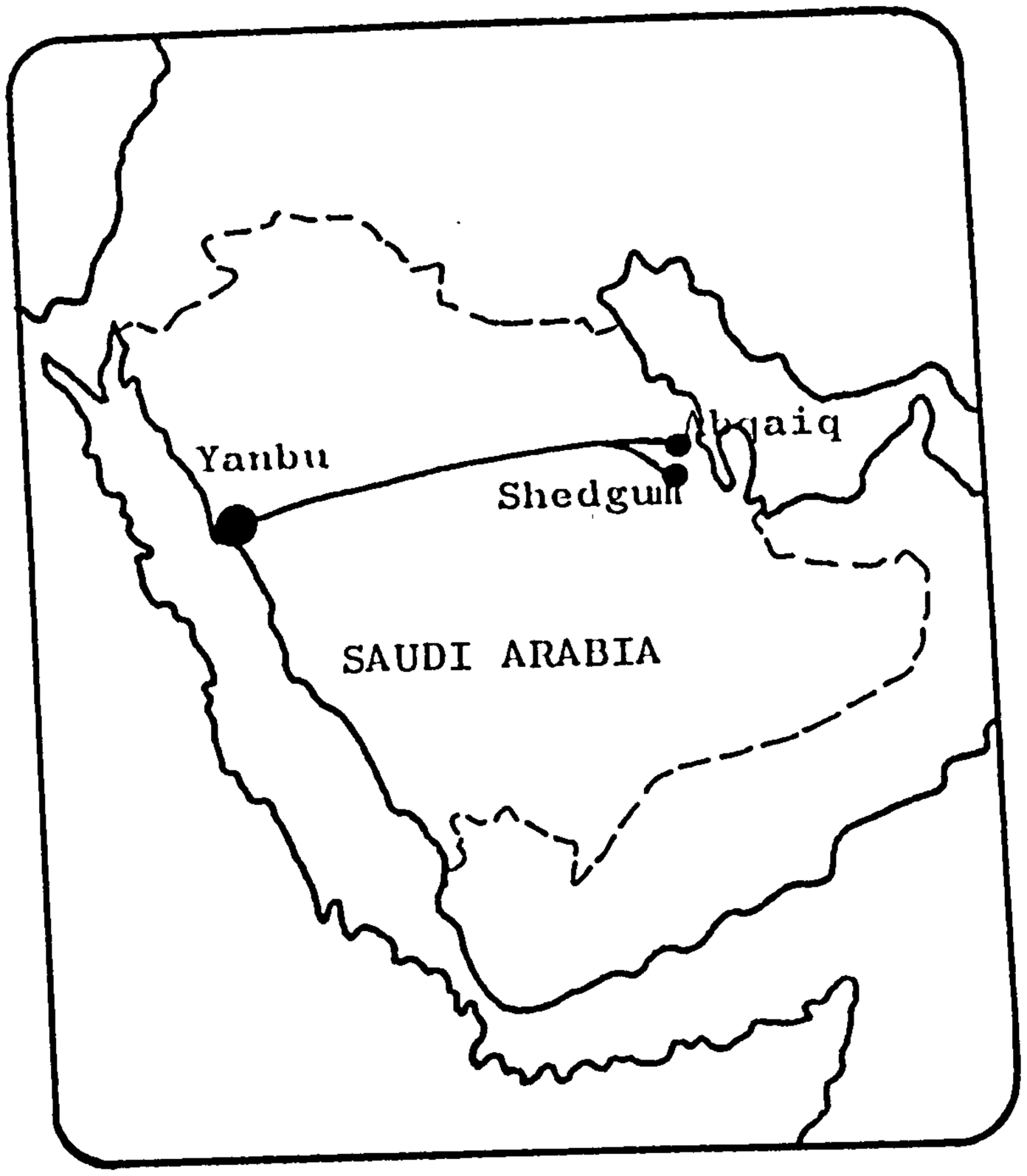
the Yemen, Yanbu provided hospitality and shelter to travellers weary from the long days under the broiling sun. Not only merchants but pilgrims coming overland and by sea on their way to the holy cities of Makkah and Medina found Yanbu a convenient caravan stop and a safe harbour - as the second largest sea-port in the country after Jeddah. The commerce provided by these travellers enabled old Yanbu to survive through history. However:

> "it was not until 1975, 40 years after the discovery of oil in Saudi Arabia, the Yanbu region would be propelled into the international spotlight of world recognition" (The Royal Commission, 1985, p.8)

5.43 As previously elaborated and as will be demonstrated in Chapter Six, Saudi Arabia's economic growth relied almost entirely on crude oil exports, from the late 1960s. Recognising that oil and natural gas reserves were depletable and the future demand for them could diminish, the Saudi Government embarked on a programme of industrialisation to develop other products as well as to process the Crude oil, in order to continue the Kingdom's economic growth. As has been tentatively described, these programmes were among the adopted policies so that the long term goal of diversifying the economy could be fulfilled.

5.44 To put words into action, as well as the establishment of the industrial estates, the Royal Commission for Jubail and Yanbu was established in 1975: a high commission with the King at the top of the pyramid which included senior staff. This followed the establishment of two pipelines extending for 1,168 km from Shedgum - in the case of the pipe for natural gas - and from Abqaiq - for the pipe for Crude oil - to Yanbu in the opposite Western side of the country (see Figure Six). However, the Commission was established to provide in Jubail and Yanbu the wide range of

Figure Six : The Crude Oil And Natural Gas Pipelines That Link Yanbu In The West With Oil Resources In The East Of Saudi Arabia



Source : The Royal Commission For Jubail And Yanbu, 1984

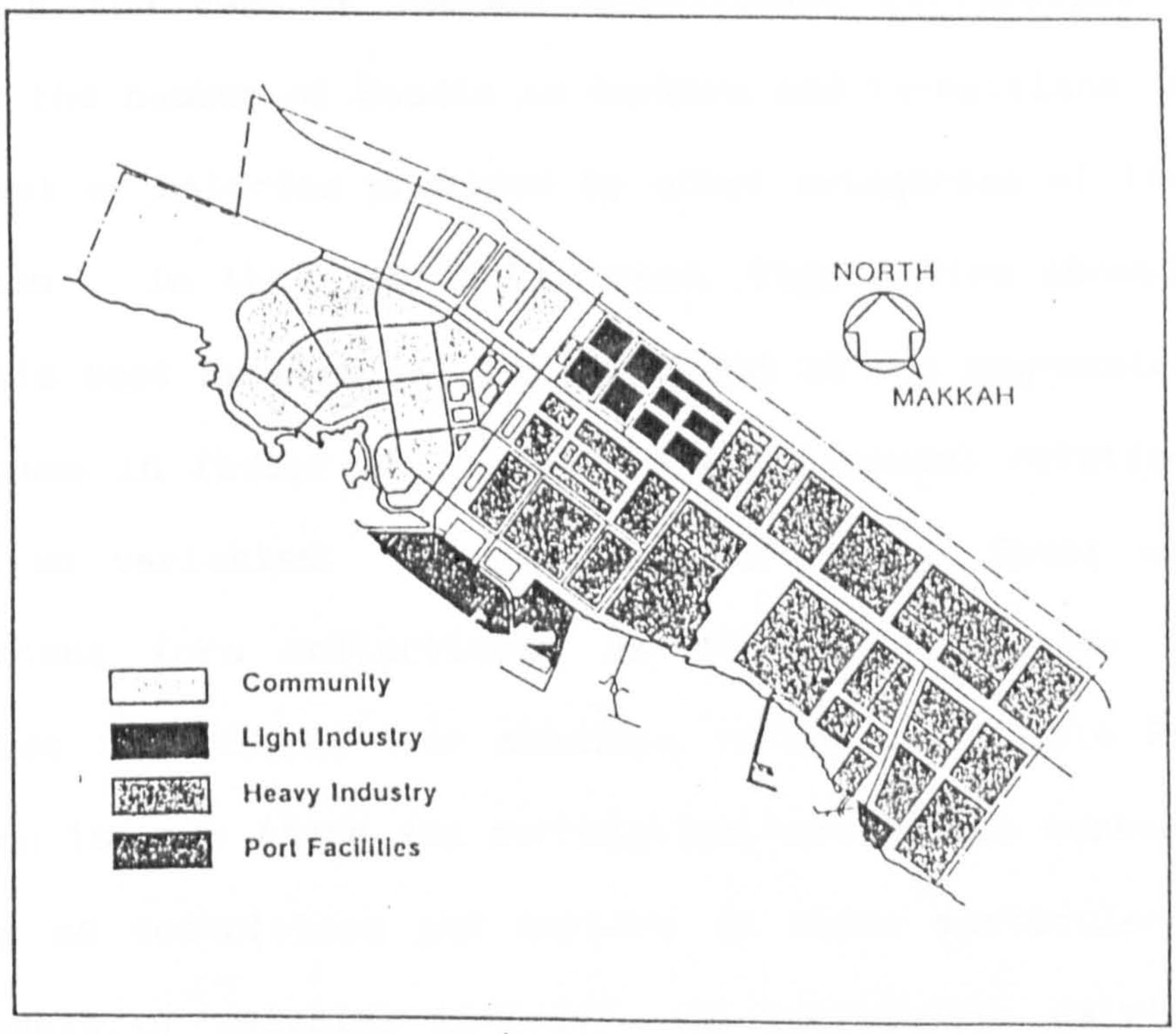
facilities which are provided in major centres in the country, by over ten ministries. In particular, the Royal Commission is there to build physical infrastructure (e.g. sea-ports, airports, roads, utilities ... etc.), to implement aggressive manpower training programmes for Saudis and to provide guidance and advice to new investors in the Yanbu and Jubail Light Industries' Parks. The Royal Commission, however, was given a period of 20 years, starting from 1975 and ending in 1995, to fulfill the goals initially asked of them.

5.45 To help in diversifying the national economy, both the cities of Jubail and Yanbu have parks where non-oil industries could establish: those are the ones termed above 'the Light Industries' Parks'. Incentives, similar to the ones provided in the Jeddah Industrial Estate and listed in the preceding section, are provided in those non-oil industrial parks for the purpose of stimulating the creation and polarisation of private enterprises: both Saudi and joint ventures. Figure Seven shows the physical location of the Light Industries' Park in relation to the Heavy Industries' Park in Yanbu. The figure shows clearly that the Yanbu Industrial City is a self-contained one, with its housing and other supporting facilities.

5.46 For the reasons and justifications given in P. 4.20, detailed studies of matters related only to the Light Industries' Park in Yanbu will be dealt within the next sub-section. The data gathered during the survey which was carried out in April/May 1988 for the factories in the park will be critically analysed. This experience, together with the experience of the factories interviewed in the Jeddah Estate, will then be comparatively

studied and utilised in making suggestions for the proposed policy and for Al-Baha – the study region – in particular.

Figure Seven : Setting of the Yanbu Light Industries' Park in the Yanbu Industrial City



Source : The Royal Commission For Jubail and Yanbu, 1985, P. 8

DETAILED STUDIES

Saudi and Non-Saudi Employees

5.47 Having collected data during the questionnaire survey carried out for the 14 factories in the Yanbu Light Industries' Park, Table Five provides aggregated and disaggregated values concerning employees in those factories. The Table shows that

total employees in the 14 factories interviewed is 582 persons. Of this total, only 40 (or7%) are Saudis. Of the Saudis, 23 employees (or 58%) are administrators while only 17 (or 42%) are workers and technicians, collectively. The main reasons for the low number of the Saudis in the employment provided by these factories are probably similar to those previously listed when dealing with a similar situation in Jeddah Industrial Estate.

5.48 In the case of Jeddah, significant correlation was found between the number of Saudis as workers and technicians on one hand and level of salaries provided by other categories of factories on the other. In that particular case, Figure Five showed the line that fits best between readings in light of the regression equation and argues in favour of the existence of causal relations between these two variables. In the case of Yanbu, Saudi workers and technicians form collectively 3% of toal employees in the 14 factories interviewed (for absolute values, see Table Five). The question is: Is there any correlation between the number of Saudis working as technicians and workers in these particular cases and the levels of salaries offered? If correlation exists, does it imply the existence of causal relations between the two sets of variables?

5.49 To answer the above question, Table Six is derived from Table Five in preparation for applying relevant tests. Although correlation is a parametric test (i.e. a test which is applied correctly when the population numbers concerned is very high or distribution of readings is normal or near to normal), it can be applied to the readings shown by columns C and D in Table Six. Using a computer programme it can be shown that correlation between values in the columns C and D in the table referred to is equal to

Table Five: Employment Structure and Level of Salaries Paid by the Factories interviewed in the Yanbu Light Industries Park

Factories Category	Total	Total Employees.	Saudi Employees A	B	C	D	Average Salary E
Food	2	86	1	3	4	8	1,550
Building Materials	8	329	17	0	3	20	1,700
Industrial Related Services	4	164	5	3	4	12	2,800
Totals	14	582	23	6	11	40	2,013*

A = Administrators
B = Workers
C = Technicians
D = Total
E = For a Technician or a Worker (in Saudi Riyals/Month)
* = The True Mean
Source: A questionnaire survey carried out by the researcher in April, 1988.

-0.172. This is very close to zero. Statisticians believe that if the correlation value is equal to +1, a completely positive correlation exists: i.e. when one variable increases the other one increases also with almost similar proportions. The opposite in terms of direction of changes in values can be said when correlation is equal to -1. But, when the correlation is equal to zero or a value near to zero, this means to statisticians that no association exists between the readings concerned and, therefore, causal relations can be implicitly perceived as being non-existent. Thus, in these particular cases, only a negligible degree of association exists between the number of Saudis employed as workers and technicians and the level of salaries offered by various categories of factories. Regression tests could be applied for the purpose of testing causality only if the correlation value found was significant. Therefore, since the correlation value in our

particular case is nearly zero, there is no need for regression tests to be applied since the absence of causal relations is – as shown previously – clearly indicated.

Table Six: Average Saudis Employed as Workers and Technicians Assigned to Individual Categories of the Factories Interviewed in the Yanbu Light Industries' Park.

Category	A	B	C	D
Building Materials	8	3	0.375	1,700
Food	2	7	3.500	1,550
Industrial Related Services	4	7	1.750	2,800
Totals	14	17	1.214	2,013*

A = Number of factories in the sample
B = Total Saudi technicians and workers
C = Saudi technicians and workers ÷ Total factories
D = Monthly salary for a technician or a worker (in Saudi Riyals)
* = The True Mean
Source: Developed from Table Five.

5.50 By carefully studying them, the values in Table Six support the suggestion provided by the correlation test. The Table shows clearly that factories in the food category have the highest average of Saudis working as technicians and workers while offering the lowest comparitive monthly salaries. The opposite can be said about the other two categories shown by the Table. Setting aside discussion of such correlation differences, this poses the question: Why is the average salary of a Saudi technician or worker higher in a factory of similar category in Jeddah than in Yanbu? Two reasons can be subjectively offered here: first, well paid jobs offered by the oil-related industries in Yanbu are readily available and the individual non-oil industries probably compete with them in attracting Saudis and, second, old and new

Yanbu have just 20% of the population of Jeddah: the size of the labour force in Jeddah is greater than in Yanbu and, therefore, the number of people who seek jobs provided by factories near to their homes would be higher in Jeddah.

5.51 Having discussed some aspects of employment structure in the factories interviewed in Yanbu, the next sub-section will explore other experiences of those factories: a similar approach to the one previously used in analysing the experience of the Jeddah factories will be applied here, in preparation for later comparative studies.

MISCELLANEOUS ISSUES

5.52 Of the 14 factories interviewed in Yanbu, 3 (or 21%) were initially established in the late 1970s while 11 (or 79%) were initially established in the early or middle 1980s. This demonstrates that most of the factories interviewed are in the early stages of development. However, all were initially established in the Yanbu Industrial City for various reasons, namely: first. due to high demand in 5 cases (4 of them manufacture building materials), second, for incentives in 8 cases, and third, through loyalty to Yanbu in a single case.

5.53 Four factories (or 29% of total) obtain 100% of their raw materials from within the Yanbu region: in the form of gravel, cement, sand and water. A bakery obtains 90% of its raw materials from within the country, 1 obtains only 20% from within the country, while 9 (or 64% of the total) obtain 100% of their raw materials from Europe and the USA. In terms of selling the final products, 6 (or 43% of the total) sell their products within Yanbu (4 of them manufacture building materials), 7 (or 50%) sell between

40% and 60% of their products within Yanbu, while one sells only between 20% and 30% within Yanbu. However, none of them export final products to overseas countries.

5.54 The same argument can be made here also about industries in Jeddah regarding imports and exports. That is the factories which rely on imported raw materials are subject to losses due to many factors, one of which can be depreciation in value of domestic currency against the currencies of countries from which raw materials are imported. For example, in early 1985, a single Saudi Riyal was worth £0.18 but – due to many factors – its value fell to £0.14 by early 1988. Assuming that the price of a unit of a certain raw material which was imported by a Saudi factory from the UK did not change over the same period specified above (i.e. relaxing inflation and additional factors which would push prices up in the UK), then a unit that would cost £10 in the UK would have cost the importer 56 Riyals in early 1985 and 71 Riyals in early 1988 (relaxing any tariff or other complicated matters governing imports and exports). The difference of an additional 15 Riyals in the above example would be paid by the same importer. If the same factory could not export reliable quantities of final products to the UK over the same period specified in the example, then losses due only to changes in value of currencies might accumulate and lead to serious financial deficits. Conditions could be reversed if the value of domestic currency improved against the foreign currencies concerned. However, having 64% of factories in Yanbu importing 100% of their raw materials from the UK, from other countries and from the USA and exporting nothing to them might lead to losses due to changes in currency values, especially in view of spontaneous deterioration in oil market conditions.

5.55 Ten factories (or 79% of those interviewed in Yanbu) admitted that their production levels had continued to decrease sharply during the last four years. Closer inspection shows that 7 of them manufacture building materials and 3 manufacture industrial materials. As industrial and housing construction was mostly accomplished in Yanbu in the early years of the 1980s, falling demands for the type of business offered by these 10 factories could be blamed primarily for their decreasing production levels and, therefore, declining revenues.

5.56 Four factories (or 29% of the factories interviewed) seriously considered relocating in other as yet undesignated areas. Three of them manufactured building materials and suffered from falling demand in Yanbu. None of the other ten factories thought of relocating in areas other than those they occupied in Yanbu Industrial City: they mostly attributed this to the high costs associated with moving equipment due to relocation rather than to primarily satisfactory business conditions in Yanbu. However, none of the 14 factories interviewed in general, and none of the 4 factories which were considering relocating in other areas in particular, thought of relocating at some future date in Al-Baha: the study region. They were convinced that marketing conditions in Al-Baha would not be any better than conditions in Yanbu – despite the fact that the latter's are deteriorating – even if similar incentives became available in Al-Baha. In particular, they mostly argued that Yanbu was better than Al-Baha as a place for industrialisation due to: first; existence of a sea-port through which raw materials could be imported, second; Yanbu had easier access to the large markets of Jeddah and Madina, and third; existence of oil refineries and the prestige that Yanbu gained may

lead to gradual growth in terms of both population and government investment in services and financial incentives.

5.57 Six factories (or 43% of the total) face aggressive competition in markets with similar locally manufactured products. Three of them manufacture building materials and competed with small non-licensed block factories who did not abide by the specified standards. The other 8 factories competed with similar imported final products. They appreciated the action of protecting them through applying tariffs of 20% of the value of similar imported final products, but suffered from the 12% tariff applied on the imported raw materials on which they mostly relied. Possible implications of these tariffs were thoroughly discussed when dealing with a similar situation in Jeddah (refer to P. 5.35)

5.58 Only 3 factories (or 21% of total) have functional linkages with a cement factory that is located some 60 km from the Yanbu Light Industries' Park in which they are located. These linkages are limited to the buying of cement for further processing of building materials. However, these 3 building materials' factories – just like the other 11 factories interviewed – have no other functional relations neither with each other nor with other domestic factories. Similar to those interviewed in the Jeddah Industrial Estate, existence of the Perroux's propulsive industry and mechanism of external economies is very much in doubt. Accordingly, although physically existing in a single park, development of an industry probably has no impact on the development of another in the Yanbu Light Industries' Park. This contradicts the main principles of concentrations in the case of industries being functionally related to each other. However, none of those factories located initially in the Park for the advantages

of being closer to factories processing complementary materials to their's but rather for benefitting from the concentrated service and financial incentives. Furthermore, due to the absence of linkages with surrounding institutions and sectors of society, this concentration played no clear role in spreading or trickling benefits down to the old backward Yanbu adjacent to the Park.

5.59 None of the factories interviewed suffer from problems associated with absence, lack or delay in service provision. The Royal Commission for Jubail and Yanbu ensures that all the required external services and utilities are provided and connected to premises within the industrial city in the early stages of factory establishment.

5.60 Finally, the forthcoming section will comparatively sum up the various issues mentioned separately about the 43 factories interviewed in Jeddah and the 14 factories interviewed in Yanbu: This will provide background information for the proposed policy in general and for the Al-Baha region in particular.

COMPARATIVE VIEWS

5.61 This section aims at extracting selective arguments from the preceeding two sections and listing them in a form that will enable conditions in the Yanbu Light Industries' Park and in the Jeddah Industrial Estate to be comparatively viewed. First, the composition of Saudi employees in the factories interviewed in Jeddah, Yanbu and in Al-Baha will be comparatively viewed. Second, comparative experiences of factories in Jeddah and Yanbu will be considered.

COMPOSITION OF SAUDI EMPLOYEES IN YANBU, JEDDAH AND IN AL-BAHA: A COMPARATIVE VIEW

5.62 To discover whether significant differences exist between the number of Saudi employees (i.e. in aggregated and disaggregated terms) in Jeddah, Yanbu and in Al-Baha, the Chi-Squared test could be applied on the totals shown by the bottom rows in Tables Four and Five, as well as on the corresponding totals in relation to the Al-Baha case. In constructing such a hypothetical table, almost all requirements for correct application of the Chi-Squared test would be satisfied: i.e. most important, the data would then be both assigned to categories and in the form of absolute frequencies.

5.63 Despite the potential applicability of the Chi-Squared test on the above hypothetical table, it would give a misleading result. Definitely, it would conclude that significant differences exist between numbers of Saudi employees in the three cases of Jeddah, Yanbu and Al-Baha. This would primarily be due to the fact that the number of factories interviewed differ significantly from case to case: i.e. 43 factories in Jeddah, 14 in Yanbu and only 8 in Al-Baha. Therefore, direct comparison of absolute values which may relate to these three cases should be avoided.

5.64 Alternatively, Table Seven is constructed to show values related to Saudi employees as percentages of the total number of employees (both Saudis and non-Saudis) in each of the three areas. Figure Eight follows to provide proportional circles that can help in visually comparing: first, total number of employees (both Saudis and non-Saudis) in the total of factories interviewed in the three areas of Jeddah, Yanbu and Al-Baha, second, proportion of Saudis in the total of employees in each area and, third,

proportion of Saudis in the total of employees between areas. However, Table Seven and Figure Eight should be viewed as complementaries that require simultaneous consideration.

Table Seven: Percentage of Saudis in Total Employees: a Comparative View

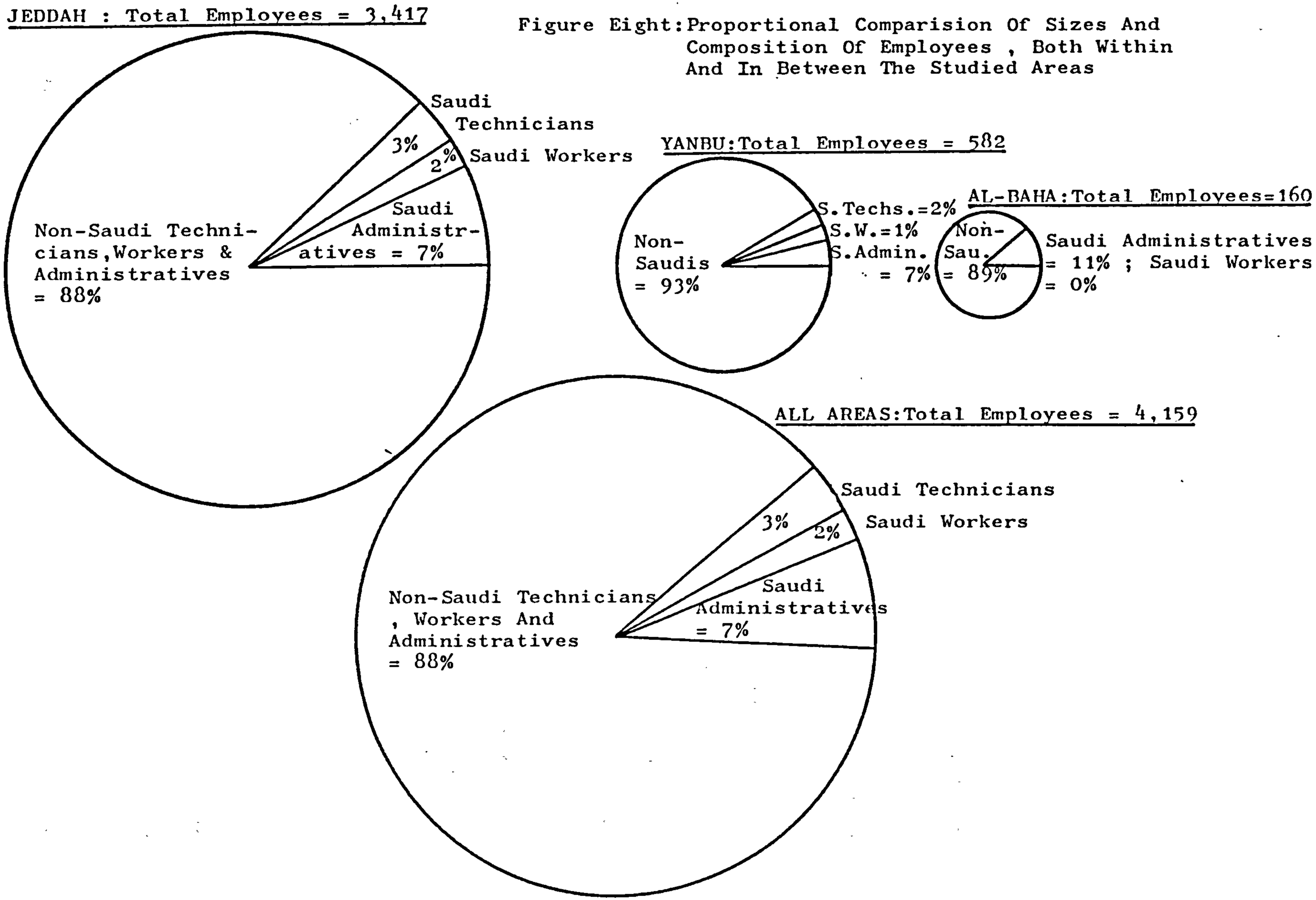
% of Saudis in Total Employees

Area	Admin	Workers	Tech	Total as % of total employees	Total Employees (Saudi and non-Saudi)
Jeddah	7%	2%	3%	12%	3,417 *
Yanbu	4%	1%	2%	7%	582 **
Al-Baha	11%	0%	0%	11%	160 ***
All Areas	7%	2%	3%	12%	4,159

Admin = Administrators
Tech = Technicians
* Total employees in the 43 Factories interviewed in the Jeddah Industrial Estate.
** Total employees in almost all the operating non-oil factories (i.e. 14) in the Yanbu Light Industries' Park.
*** Total employees in the 8 factories in Al-Baha known to the office of Chamber of Trade.
Source: A questionnaire survey carried out by the researcher in April/May, 1988.

5.65 In terms of total employees, the factories interviewed in Yanbu employ 582 persons. This is equivalent to only 17% of those employed by the factories interviewed in Jeddah. In Al-Baha, the factories interviewed employ only 160 persons and this is equivalent to only 27% and 5% of those employed in the factories interviewed in Yanbu and Jeddah respectively. However, one has to bear in mind that almost all the factories in Yanbu and Al-Baha, but only 23% of the total factories in the Jeddah Estate were interviewed. If the 43 factories (i.e. 23% of total) interviewed in the Jeddah Estate was wholly representative, then all the 188

Figure Eight: Proportional Comparision Of Sizes And Composition Of Employees , Both Within And In Between The Studied Areas



Source : Developed From Table Seven

factories there should employ just under 15,000 people at the time of the survey: i.e. (3,417 ÷ 43) x 188 = 14,939 employees, where the 3,417 persons represent the employees in the factories interviewed (see Table Seven). Therefore, Jeddah is comparitively the largest employer of the three studied areas, followed by Yanbu and then by Al-Baha, respectively. (Refer to Table Seven).

5.66 Table Seven also provides a comparison of the percentages of Saudi administrators, workers, technicians and aggregate employees of the total number of employees (both Saudi and non-Saudi) within and between the three areas of Jeddah, Yanbu and Al-Baha. According to these experiences, as is clearly shown by Table Seven and Figure Eight, Saudis tend to engage themselves more in administrative jobs, possibly due to the fact that these posts are associated with better salaries and less demanding tasks. Although Saudi workers and technicians represent tiny percentages of the total number of employees in each of these three areas, the picture tends to be comparatively better in Jeddah, in Yanbu and then in Al-Baha. Focussing on the row which shows statistics about Al-Baha in Table Seven shows that all the Saudis employed by the 8 factories interviewed are engaged in administrative positions. There is not a single Saudi worker nor is there a single Saudi technician in these particular factories.This could be attributed to social conservatism against industrialisation which may be comparatively high in this rural area, besides various other factors: this issue will be objectively explored later in Chapter Seven. Surprisingly, The Al-Baha Vocational Training Centre – which is located in Al-Baha – has been graduating hundreds of mostly local young Saudis who used to be practically trained in various skills (e.g. electrical, carpentry, metal manufacturing,

... etc.) for some eight years. However, none of those hundreds of graduates occupied any employment available to technicians in these factories, in the time of the survey. The availability of better paid jobs in urban areas could be the primary cause of this. However, what is not known to this study is whether the factories concerned made it possible for Saudi applicants to obtain employment in them.

5.67 Looking at the bottom row in Table Seven, the percentage of the various Saudi employees in the total number of employees in all the studied areas tends to follow the pattern shown by the case of Jeddah in the top row - see also Figure Eight. This indeed reflects the comparatively strong pull that Jeddah has among the three cases in terms of total Saudi and non-Saudi employees, in aggregated and sub-categorised terms. However, as we look from the top to the bottom row in Table Seven - which show data about Jeddah, Yanbu and Al-Baha respectively - the percentage of the various Saudi employees in the total number of employees (both Saudi and non-saudi) in each area tends to deviate more from the percentages shown by the bottom row which relates to all areas. Bearing in mind that the top row shows statistics about Jeddah, this - as already hinted - reveals that the absolute numbers of Saudis who occupy various employments provided by the factories interviewed are larger in Jeddah than in Yanbu and Al-Baha.

5.68 Having discussed some comparative matters regarding the number of employees in the factories interviewed within and between the three cases, attention will now be devoted to illustrating comparative views regarding experiences of the factories interviewed in Jeddah and Yanbu, so that lessons can be better

learned for the proposed policy as well as for the policy's potential implications on the Al-Baha region in particular.

MISCELLANEOUS ISSUES: COMPARATIVE VIEWS

5.69 The intention here is to sum up the information regarding experiences of the concentrated factories in Jeddah and Yanbu. Such information will be stratified in a fashion that enables comparative views to be easily constructed. Figure Nine aggregates and introduces them in the form of a table, with the relevant issues in corresponding lines.

Figure Nine: Comparative Information about the Factories Interviewed in Jeddah and Yanbu

THE JEDDAH INDUSTRIAL ESTATE	THE YANBU LIGHT INDUSTRIES' PARK
Factories interviewed = 43 = 23% of total factories in the estate.	Factories interviewed = 14 = almost all factories in the Yanbu Light Industries' Park
Of the sample, 27 factories (63%) were initially established in the early and mid 1980s, 14 (or 33%) in the mid and late 1970s and 2 (or 4%) were established prior to 1970.	Of the factories interviewed 3 (or 21%) were initially established in the early and mid 1970s while the remaining 11 (or 79%) were initially established in the early and mid 1980s.
35 factories (81% of the sample) were initially established in the estate for: 1 - incentives, and 2 - accessibility to the sea-port. 8 factories moved to the estate, of which 4 were actually pushed from their original locations by forces such as lack of space etc., while 4 were pulled by the estate's incentives.	All 14 factories interviewed were initially established in the city: 5 for high demand (4 of them manufactured building materials), 7 for incentives, 1 for lack of competition and 1 for loyalty to Yanbu in the first place and secondly for incentives.
22 factories (51% of the sample) import 100% of their raw materials from abroad, 6 (or 14%) import between 95% and 98%, 8 (or 19%) import between 60% and 80%, while the remaining 7 factories (or 16% of the sample) import only between 1% and 10%.	9 factories (64% of those interviewed) import 100% of their raw materials from abroad, 1 imports 80%, 1 imports 10% while 4 (or 9%) use only local materials in the form of sand, gravel, cement and other building raw materials.

16 factories (or 37% of the sample) sell products to all regions within the country, 7 (or 16%) also export to the Gulf countries, 6 (or 14%) export to some Arab countries while 7 (or 16%) sell within the City of Jeddah.	6 factories (or 43% of the factories interviewed) sell in Yanbu only, while the other 8 (or 57%) sell in Yanbu as well as in other regions of the country. None of them exports final products abroad.
32 factories (74% of the sample) achieved profits: all were established prior to 1981. Ten factories (or 23%) have not achieved the break even point but have prospects of soon doing so. All were established after 1982. One factory is making a loss.	7 factories (50% of those interviewed) have not achieved the break even point: all were established after 1982. The other 7 factories (50%) achieved profits although of a decreasing nature: all were established prior to 1981.
All services in the estate are adequately provided by the Ministry of Industry, apart from water in some cases. Some factories transport water some distance at their own expense in order to fill the gap between supply and requirement.	Provision of services and facilities is not causing any serious problem. The Royal Commission for Jubail and Yanbu is in control of this matter.
41 factories (95% of the sample) do not choose to relocate in any other area in the country including Al-Baha for several reasons (see previous description). Two factories (5%) would prefer to relocate in Al-Baha if the incentives were available there, where competition with similar imported final products to the ones they manufactured would be less aggresive than in Jeddah.	4 factories (29% of the total factories interviewed) consider relocating in other as yet unspecified areas due to stagnating demands in Yanbu: 3 of them manufacture building materials. None of them considers relocating in Al-Baha even if the incentives were improved there. Their reasons for these attitudes have been provided in the preceding section.
29 factories (67% of the sample) face aggressive competition with similar imported final products. Other 4 concrete factories suffer from competition with non-licensed factories which do not abide by the specified standards, while 10 factories (23%) do not face any sort of competition. However, although praising the application of 20% tariffs on similar imported final products, the factories which rely on imported raw materials suffer from the application of 12%	6 factories (43% of those interviewed) face competition with domestically-manufactured products: 3 of which manufacture building materials and compete with similar non-licensed factories. The other 8 (57%) suffer from competition with similar imported final products. Likewise, factories, especially those relying on imported raw materials, praise the application of 20% tariffs on similar imported final products but suffer from the 12%

tariffs on the imported raw materials.	tariffs applied to imported raw materials.
33 factories (77% of the sample) have no functional linkages - either between them or with other indigenous factories anywhere in the country. Five factories (12%) have linkages with factories outside Jeddah while 2 juice factories buy packing materials from the remaining 3 sampled plastic factories on the estate. Accordingly, propulsive industry, external economies and trickling benefits down to surroundings are features that have no suitable climate in the Jeddah Industrial Estate.	11 factories (79% of those interviewed) have no functional linkages - either between them or with any other factory within the country. The remaining 3 factories (21%) buy cement from the Yanbu Cement Factory, which is located some 60km from the Industrial Park. Therefore, likewise, propulsive industry, external economies and trickling benefits down to surroundings are mechanisms that have no suitable climate in the Yanbu Industrial Estate.

5.70 The above stratified information about miscellaneous aspects which concern the experience of the factories interviewed in Jeddah and Yanbu, provides a self-explanatory comparative picture. For details, reference should be made to the preceding two sections. Figure Nine helps extract lessons for the proposed policy in general and for its potential implications on the Al-Baha region in particular: a task which will be tackled in the next section.

LESSONS FROM THE EXPERIENCES IN JEDDAH AND IN YANBU FOR AL BAHA AND FOR THE PROPOSED POLICY

5.71 Having separately and comparatively studied various aspects concerning the experience of factories interviewed in the Jeddah Industrial Estate and in the Yanbu Light Industries' Park, seven lessons can be learned for the proposed policy of growth centres in general and for the potential implications of the policy on the Al-Baha region in particular: other lessons are possible, but the potentially significant ones are as follows:

i *These two experiences show that, at least for the time being, the participation of Saudis in the employment available in factories is limited. The picture tends to be worse when considering the participation of Saudis in the industrial jobs available for technicians and workers. This can be subjectively attributed to: first, preferential treatment of Saudis; second. better paid and less demanding jobs still readily available in the tertiary sectors throughout the country; third, unemployment as experienced in the Western industrialised countries is not yet a problem in Saudi Arabia; and fourth, social conservatism against effective involvement by Saudis in industrialisation in Saudi Arabia. Could such problems be obstacles to application and performance of the policy in general and to the policy in Al-Baha in particular? ;*

ii *Factories tended to relocate or initially establish in .these two areas not to be closer to complementary industries, but rather for obtaining benefits from incentives in the first place. Thus, functional linkages among them tend to be negligible. If the same thing happened in Al-Baha, then benefits would not be spread by centres to surrounding areas. As in Korea (refer to Chapter Three), areas of concentrations would rather be developed, self-contained, units in the body of economically and physically run-down areas;*

iii *Most factories in the two areas import high proportions of their raw materials from abroad. This, as illustrated previously, could make them subject to losses due to fluctuation in prices or changes in currency values.*

However, locating near to sea-ports (an advantage that Al-Baha does not have) makes it possible for the two cases of Yanbu and Jeddah to obtain raw materials easily imported from abroad. Also, Al-Baha – having no adequate raw materials – may have to rely on imported raw materials as well, and that would threaten the region's industries with losses due to similar factors to those mentioned above;

iv *The factories which admitted achieving their break-even points were by and large established prior to 1981. This reveals that areas of concentrations in general require a long time to show positive results. Simultaneously, incentives should be provided for the initial development period and possibly for some time afterwards. This requires financial commitment from governments towards such areas. Is that commitment likely to be given to Al-Baha and to the proposed policy in general? ;*

v *Because the Ministry of Industry and the Royal Commission provide in Jeddah and in Yanbu, respectively, the range of facilities and services that are provided by a large number of individual Ministries in other parts of the country, factories in the two areas do not suffer from problems associated with service provision – apart from lack of water in some cases in Jeddah. Would there be a single co-ordinating body for service provision in the proposed centres in general and in Al-Baha in particular? ;*

vi *None of the 57 factories interviewed in Jeddah and in Yanbu collectively chose to relocate in Al-Baha – apart from 2 factories who are making a loss in Jeddah, who hope that competition with similar imported final products would be*

less aggressive in Al-Baha. Most of these factories agree on having distributors in Al-Baha whenever marketing conditions proved viable. This implies two possible consequent impacts: first, the proposed centres in Al-Baha would not be able to attract industries from these two neighbouring regions and, therefore, would instead try to stimulate the creation of enterprises from scratch (which is a time and resource demanding task) as well as to stimulate attracting factories from within the region and, second, in the case of attracting only distributors of final products manufactured in these areas, Al-Baha would then miss the money multiplier effects which would otherwise help in stimulating development of the region's intra-regional micro-economics; and

vii *Four factories in Yanbu seriously consider relocating in other areas due to falling demand for building materials. This shows that factories are not permanent sources of employment especially in rural areas which tend to be unable to retain them permanently. Would the proposed policy of concentrations help to provide permanent solutions which could participate in minimising regional disparities in the country?*

5.72 These seven lessons help in illuminating issues regarding the potential viability of the proposed hierarchy of growth and development service centres in Saudi Arabia. Part Two will utilise these lessons and the other data gathered during the questionnaire survey in exploring the previously filtered (refer to Chapter Three) economic, social, settlement and institutional issues.

PART TWO: POTENTIAL IMPLICATIONS OF THE PROPOSED POLICY ON SAUDI ARABIA IN GENERAL AND ON THE AL BAHA REGION IN PARTICULAR

Part Two will study the previously filtered Economic, Social, Settlement and institutional issues. They will be respectively studied in Chapters Six, Seven, Eight and Nine, with reference to Saudi Arabia in general and to the Al-Baha region in particular. Part Two will accordingly concentrate on specific matters related to possible implication of the proposed policy of spreading growth and development service centres throughout the whole country of Saudi Arabia and, therefore, represents a transitional stage between Part One – the introduction – and Part Three – the conclusion

CHAPTER SIX: ECONOMIC ISSUES

6.01 *In the context of this chapter, matters related to potential economic implications of the proposed policy of growth and development service centres on Saudi Arabia in general and on the Al-Baha region in particular will be highlighted: the policy will be viewed as primarily hierarchical industrial growth centres. Other functions of the centres will be explained in Chapter Eight. However, as has been thoroughly and systematically explained in Chapter Three, some economic issues (e.g. availibility of raw materials and water) will merely be subjectively studied. Some other issues (e.g. the potential ability of the policy to stimulate the creation of enterprises from scratch) will be objectively tackled. However, this chapter – in the same manner that will be followed in almost all the next three chapters – will start by introducing the general economic aims and justifications behind*

adopting this policy in Saudi Arabia, and will end by illustrating matters related to more specific economic and spatio-economic implications of the policy.

ECONOMIC JUSTIFICATIONS OF ADOPTING THE POLICY IN SAUDI ARABIA

6.02 As has been outlined previously, policies of concentration have been employed mainly to assist national economies and outputs – apart from the decentralised concentrations in Norway which have clear regional equity purposes as well. Apart from the differences in their initial aims, those policies – as explained in Chapter Two – were applied in almost all the experiences studied for the purpose of stimulating the economic mechanisms attributed to concentrations in theory, namely advantages of external economies, polarising and spreading benefits to surroundings, and economic efficiency in terms of infrastructure provision. Likewise, policies of concentration applied in Saudi Arabia in the form of industrial cities and estates (refer to Chapter Five), reflected these theoretical justifications. Recently, the policy of hierarchical growth and development service centres has been proposed.

6.03 In this section, the economic aims and justifications of the proposed hierarchical pattern of growth and development service centres in Saudi Arabia will be described. Reference will primarily be made to the Third (1980-85) and to the Fourth (1985-90) Development Plans which initially proposed the policy and expressed the support and commitment of the government to it.

6.04 Among the objectives in applying this system of concentrations in Saudi Arabia is:

> " ... to assist the regions, and especially rural areas, to develop productive activities which will

> enable them to retain as many of their inhabitants as possible, ..." (MOP, 3rd Plan, 1980=-85, p, 107).

This reveals that the plan envisages that this system will succeed in stimulating the creation and retention of enterprises and employment in rural areas in particular. However, this quotation will be borrowed again when dealing with the reasons behind migrations and regional disparities in Chapter Eight.

6.05 Besides stimulating development of the backward areas, the policy is deemed potentially effective in sustaining on-going development and growth of the developing and growing areas within the country, as it will also provide for development services (as will be explained in Chapter Eight).

> "The immediate advantage of the system of development centres, therefore, are that it ..., safeguards the continuing growth of all other areas which can still make a useful contribution to the national economy, ..." (MOP, 3rd Plan, 1980-85, p. 110).

The Plan (p. 110) hopes that this policy will eventually significantly support the national economy, which currently relies heavily on oil-related activities:

> "Once the full potential of an area is recognised, there is always scope for judicious injection of capital to stimulate development to a greater scale in a way which has been pioneered in Jubail and Yanbu".

Two points can be raised regarding this quotation: first, Jubail and Yanbu have sea-ports, access to oil, raw materials and other potentials that probably none of the rural backward areas - which the policy is mainly proposed to help - has, and second, there are always trade-offs between regional equity and national economic goals, as will be highlighted in the next section. This being so, it is necessary to question whether the backward regions of Saudi Arabia will be able to fulfill the optimistic future foreseen for

them?

6.06 Besides stimulating development of the Saudi backward areas, the policy has economic efficiency goals. When highlighting the theoretical justifications attributed to concentration approaches, efficiency goals were termed as 'economics of infrastructure provision' and 'economies of agglomeration'. (refer to Chapter One).

> "The policy for the development of physical infrastructure is to select those areas which can be identified as having potential to become growth centres for productive economic activities, capable of attracting and absorbing population from other areas, ..." (MOP, 3rd Plan, 1980-85, p. 77).

Concentrating infrastructure services in particular growth centres could, therefore, be viewed in the context of incentives that are deemed potentially effective in terms of the polarisation ability of centres, not only for enterprises but for population in general and for the labour force in particular.

6.07 The Fourth Development Plan (1985-90) later came to stress the need for efficiency in providing and utilising public utilities and Community facilities. Among the explicit goals of the plan is to:

> "ensure efficient use of existing new facilities" (MOP, 4th Plan, 1985-90, p. 422).

In order to ensure better utilisation of the existing infrastructure services, the Fourth Plan (p. 407) advised:

> "encourage developments that will utilise existing infrastructure ... "

As will be highlighted later, this advocacy of efficiency in utilising and providing services can be viewed as an attempt of the Saudi Government to cut expenditures in the light of the deteriorating revenues. However, one of the spatial approaches of

achieving such efficiency aims was introduced by the Fourth Plan to implement the approved village – cluster programmes (i.e. similar to the concept of key-settlements in Britain – refer to Chapter Two), so that the efficient thresholds of services could be better achieved, particularly in the dispersed rural areas.

> " ... and accelerate the formation of village cluster" (MOP, 4th Plan, 1985-90, p. 407).

6.08 Combining the above two quotations in a single sentence as is written in the Fourth Plan (p. 407) would say:

> "Encourage developments that will utilise existing infrastructure and accelerate formation of village cluster"

Therefore, like the Third Plan, the Fourth Plan called for concentration of development and population in particular areas, broadly called growth centres: centres where industries, other economic activities and infrastructure services would be concentrated. The question is: Will enterprises and people move from non-central to central places so that the intended efficient provision and utilisation of infrastructure services could be achieved? These two issues of movement of enterprises and movement of population will be explored later in this Chapter and in Chapter Eight.

6.09 Both plans viewed the proposed growth and development service centres among the means of achieving the commitment to the national long-term goal of getting the Saudi economy diversified. Both believe that the development of manufacturing (especially the non-oil) industries could be stimulated by the system of centres and, consequently, the share of non-oil sectors in the Saudi GNP could be improved.

> "An important element of the overall Fourth Plan Strategy is the continuation of fundamental structural change in the Kingdom's economy to

> produce a diversified economic base. In addition, it specifies the selection of development centres in those areas capable of accommodating and supporting productive opportunities ..., which will encourage individual and private sector initiatives" (MOP, 4th Plan, 1985-90, p. 422).

6.10 Finally, it can be concluded that both plans put optimistic emphasis on the potential ability of the proposed growth and development service centres to stimulate development of manufacturing industries and, consequently, development of the Saudi national economy. Furthermore, both plans viewed the proposed centres as capable of attracting population and enterprises from non-central places and, therefore, that efficient utilisation of infrastructure services could be achieved. The policy is deemed by the plans as potentially capable of providing for work-to-worker conditions, that may help rural areas in retaining their population. The policy has other social, settlement and institutional aims and justifications that will be respectively highlighted in Chapters Seven, Eight and Nine.

6.11 Having outlined some of the economic aims of the proposed policy, of which some are national and others are regional, the question is: Are the proposed centres potentially capable of satisfying their regional equity and national economic goals simultaneously? A theoretical view regarding this matter will be highlighted in the following section.

TRADE OFFS BETWEEN REGIONAL EQUITY AND NATIONAL ECONOMIC EFFICIENCY GOALS

6.12 At least four areas of trade-off exist between regional equity (which is strongly linked with social equity) and national economic goals. They and supportive arguments are as follows:

i National economic goals tend generally to believe that excessive concentration of industries in areas with high potentials and prospects for growth is best for achieving maximum possible advantages and enhancement. However, such excessive concentrations can be seen as worker-to-work policies that tend to favour urban areas (where labourers and workers may be more adequate), and necessarily lead to regional disparities in a wide range of aspects. To demonstrate this, as is clearly explained in Chapter Two, Spain concentrated industries in large cities in order to stimulate the generation of the best possible assistance to its national economy. That led to massive migration from agricultural rural areas and, consequently, to cumulative deterioration in Spanish agricultural outputs and probably to cumulative development and growth of the poles. Likewise, the British Enterprise Zones are self-contained units with national economic aims, and led most of the time to polarising intra-regional enterprises that might otherwise have stimulated spatio-economic development in the zone's surrounding areas. Concentrating the Nigerian and the Korean industrial estates in large cities (near to sea-ports) was for purely national economic purposes, and was blamed for many negative impacts on rural areas (refer to Chapter Two). Conversely, application of the decentralised concentrations in Norway was blamed, among other things, for the deterioration of the overall manufacturing output over there. Likewise, the industrial estates and cities initiated in Saudi Arabia during the early 1970s were concentrated in large cities, with better prospects for

assisting the national economy. Conversely, although proposed in 1980, the growth and development service centres have not been clearly implemented in the backward areas of Saudi Arabia. This could be due to uncertainty about the ability of the Saudi backward areas to exert quick positive impacts on the Saudi national economy. Therefore, excessive concentrations (i.,e. workers-to-work policies) tend to be most favourable from the national economy's point of view, whereas dispersion (work-to-workers policies) tends to be most favourable to the regions. Even within regions, excessive concentrations may be best for better regional shares in national economy but could lead to intra-regional disparities. Accordingly, it is hard to achieve regional equity and national economic goals simultaneously. Rather, achieving one of them could be at expense to the other;

ii Not only industrialisation but also service provision can be more efficient through concentrating them in key areas. This tends to be a national economic view. However, as described in Chapter Two, residents of the British non-key Settlements were disadvantaged by excessive concentration of services in Key-Settlements. A compromise between social equity and national efficiency goals could probably be achieved if cheap and efficient transport linkages were provided to link non-key with Key-Settlements. This would work in favour of social equity but probably against national economic efficiency, since it would require Government to spend more to have such linkages provided and maintained. Furthermore, provision of services tends mainly to favour satisfying service threshold (economic efficiency)

at the expense of social equity;

iii The third trade-off between regional equity and national economic efficiency arises from differences in time scales. Long-term national goals can, sometimes, require a longer time scale than that required to respond to regional and social urgent needs; and

iv From a national economic point of view, the best contribution to economic outputs can be achieved through shifting towards more capital intensive enterprises, while social equity may favour labour-intensive enterprises so that jobs can more easily be provided. In India, for example, rural industrial estates were of a capital intensive nature in areas with an abundant labour-force and high rates of unemployment: these industrial estates were created mainly to assist the national economy in the first place, and made a negligible contribution to reducing the Indian rural unemployment rates.

6.13 To conclude this section, the above four trade-offs can be developed into two apparently paradoxical hypotheses: first, in the case of applying the policy of a hierarchical pattern of growth and development service centres, Saudi Arabia has to be prepared to accept the losses of opportunity in increased trade that could otherwise be gained through concentrating industrial investments in prosperous urban areas, and second, Saudi Arabia has to be aware of the discrepancies between excessive concentration and social equity, particularly in rural areas.

FINANCIAL COMMITMENT AND ABILITY TO FOSTER THE PROPOSED POLICY IN SAUDI ARABIA

6.14 A serious commitment to the policy of growth and development service centres throughout the whole country of Saudi Arabia was the impression gained by the researcher from meetings in the Ministries of Planning (MOP) and of Municipal and Rural Affairs (MOMRA): the two ministries who are respectively responsible for national and local planning in Saudi Arabia. The Third and Fourth Development Plans (1980-90) have – as previously highlighted – shown commitment to the policy. Fostering the proposed concentrations with incentives is an issue that the two plans were implicitly committed to. As previously quoted, the Third Plan (1980-85, p. 110) says:

> "Once the full potential of an area is recognised, there is always scope for judicious injection of capital to stimulate development to a greater scale ..."

This implies that injection of incentives and, maybe, capital would be initially considered but would be increased in areas with higher potential and prospects for growth and development. In this respect, the question that lends itself to discussion and analysis can be stated as: Will future Saudi economic conditions enable the continuous fostering of the proposed growth and development service centres?

6.15 A high number of uncertainties surround this question. Commitments to the policy are there, but unstable economic conditions always control the priorities of the Saudi Government's expenditures. However, two consequent and complementary approaches are deemed reasonable to illustrate matters related to the above question: first, the economic position of Saudi Arabia will be

studied in comparison with the cases studied in Chapter Two (i.e. Spain, U.K., Norway, South Korea, Nigeria and India). These cases mostly provided continuous and generous incentives in their areas of concentrations. Can Saudi Arabia do the same? It did the same for the industrial cities and estates, but can it do the same regarding the proposed high number of growth and development service centres which would be mostly concentrated in backward regions, and would probably need more time to show any positive impact on the national economy?

6.16 The second approach to illustrate the future ability of Saudi Arabia to continue fostering the proposed policy will be through studying the current performance of the Saudi major producing sectors, and their future prospects. However, discussing these issues will not provide a clear-cut answer for the potential ability of Saudi Arabia to foster the proposed policy, but will certainly indicate possible future economic uncertainties that may influence implementation and/or performance of the proposed policy. This issue extends from the knowledge of the vulnerability of rural enterprises to closures due to incentives prior to achieving self-dependancy.

MAIN SAUDI ECONOMIC FEATURES IN COMPARISON WITH THOSE OF OTHER COUNTRIES

6.17 This sub-section will spotlight the main features of the Saudi economy in comparison with features of the economies of the countries that applied similar policies of concentrations and were studied thoroughly in Chapter Two. As a logical start for such a study, Table One provides comparative data about basic indicators, namely: population numbers, area covered and, per capita GNPs. In terms of population number, Saudi Arabia was inhabited by 11.1

million in mid 1984. That was equivalent to respectively 29%, 20%, 271%, 1.5%, 12% and 56% of the total inhabitants at that time in Spain, the U.K., Norway, India, Nigeria, and in South Korea. (for absolute numbers refer to Table One).

6.18 In terms of area covered, Saudi Arabia occupies a total of 2.150 thousands of sq. km. This is equivalent to respectively 426%, 878%, 664%, 65%, 233% and 1,777% of the areas covered by Spain, U.K., Norway, India, Nigeria and Korea. (see Table One). This enables the calculation of the mid-1984 population gross densities as 5, 77, 230, 13, 228, 104 and 164 persons /sq. km. in Saudi Arabia, Spain, U.K., Norway, India, Nigeria and South Korea, respectively.

6.19 According to Table One, the 1984 Saudi per capita GNP was 10,530 Dollars. That was equivalent to respectively 237%, 123%, 76%, 4,050%, and 1,442% of the per capita GNP at that time in Spain, U.K., Norway, India and Nigeria. (No relevant data were provided for South-Korea). The two countries with the smallest gross population densities (i.e. Norway and Saudi Arabia) also had the largest comparative per capita GNP in 1984. Both are globally recognised oil exporters. However in terms of growth in per capita GNP, Saudi Arabia had the largest comparative average annual rate (5.9%) between 1965 and 1984. (see Table One). Simultaneously, Saudi Arabia became one of the largest exporters of oil during that particular period.

6.20 Although per capita GNP can indicate the extent to which a particular economy is potentially capable of satisfying social standards, it does not give a direct correct measure for long-term health of the economy concerned. The comparatively high per capita GNP in Saudi Arabia, for example, is underlined by its

Table One: Basic Indicators; Comparative Figures

Country	A	B	per capita GNP C	per capita GNP D
Saudi-Arabia	11.1	2,150	10,530	5.9%
Spain	38.7	505	4,440	2.7%
United-Kingdom	56.4	245	8,570	1.6%
Norway	4.1	324	13,940	3.3%
India	749.2	3,288	260	1.6%
Nigeria	96.5	924	730	2.8%
South-Korea	19.9	121	---	----

A – Population (millions) in mid-1984
B – Area (thousands of sq.km.)
C – Dollars in 1984
D – Average annual growth (percentages), between 1965 and 1984
--- Values not provided
Source: The World Bank Report, 1986, pp.180-181.

comparatively small population and high levels of oil exports and, hence, revenues. Table Two provides comparative data about sizes and shares of different producing sectors in the GDPs of the countries referred to. It demonstrates clearly that Saudi Arabia had the comparatively lowest GDP in 1965 – prior to active oil production – but had the fourth comparatively best GDP in 1984. In numerical terms the Saudi GDP was 2,300 million Dollars in 1965 (i.e. respectively 10%, 2.3%, 32%, 5% and 55% the GDPs at that time in Spain, U.K., Norway, India and Nigeria) but increased by almost 48 fold to become 109,380 million Dollars in 1984 (i.e. respectively 68%, 26%, 200%, 67%, 149% of the GDPs at that time in Spain, U.K., Norway, India and Nigeria). (see Table Two). Therefore, Saudi Arabia has witnessed an outstanding sudden increase in its GDP – both absolutely and comparatively – and that should have backed up the sudden physical and economic developments witnessed by the country in later stages.

6.21 Close inspection of the components that formed the GDPs in

these countries reveals that major shifts from agriculture to services were common features that characterised the economies referred to in the late 1960s, the 1970s and in the early 1980s, (see Table Two). Except in Nigeria and in India, shares of agriculture in the GDPs of these countries became negligible in 1984. This may not necessarily imply decline in the actual agricultural output in these countries, but could rather imply more accelerated developments in the shares of other sectors in the individual GDPs, particularly the service sectors. However, looking at the row that provides data about Saudi Arabia in Table Two enables the calculation that oil-related industries had a share of 53% in the country's GDP in 1984. Two other points regarding Table Two can be raised, first, industrial sectors had decreased shares in all the GDPs referred to except Saudi Arabia, and, second, non-oil manufacturing industries had tremendously developing shares in the GDPs of these cases but not in those of Saudi Arabia and Nigeria, which rely mostly on oil related industries.

Table Two; Structure of Production; A Comparative View.

Country	GDP (Millions of Dollars		Distribution of GDP (%)							
			A		B		C		D	
	1965	1984	1965	1984	1965	1984	1965	1984	1965	1984
S,A,	2,300	109,380	8	3	60	60	9	7	31	38
Sp,	23,320	160,930	15	-	36	--	25	-	49	--
U,K,	99,530	425,370	3	2	41	36	30	22	56	62
Ny,	7,080	54,720	8	4	33	43	21	14	59	54
I,	46,260	162,280	47	35	22	27	15	15	31	38
Na,	4,190	73,450	53	27	19	30	7	4	29	43
S,K,	------	-------	--	--	--	--	--	--	--	--

Legend: S,A, = Saudi Arabia Sp, = Spain U,K, = United Kingdom
Ny, = Norway I, = India Na, = Nigeria
S,K, = South Korea
'A' = Agriculture, 'B' = Industry,
'C' = Manufacturing Industries in Particular,
'D' = Services '-' = Values not provided,
Source; World Bank, 1986, pp, 184-185,

6.22 Generally speaking, average annual growth rates of GDPs have shown sharp declines in all these cases (except in India) between 1973 and 1984 in comparison with the annual growth rates shown between 1965 and 1973. (See Table Three). Excluding India, depreciation in the annual growth rates of GDPs traced comparatively slower declining lines in the two cases of Norway and Saudi Arabia – two oil countries – than in the other cases listed in Table Three, with the sharpest decline witnessed in the Nigerian (albeit an oil producing country) and in the British GDPs annual growth rate. Probably due to the active utilisation of crude oil, the Saudi GDP increased rapidly between 1965 and 1973 but – although still increasing – those rates of increase still slowed down dramatically over the period 1973 to 1984. However, if the cases referred to were representative for the economic conditions throughout the world during those particular periods of time, then it could be argued that the world economies had been witnessing overall deterioration and recession accompanied by major shifts from primary to tertiary sectors.

Table Three: Growth of GDPs; A Comparative View.

Country	Average Annual Growth Rate of GDP (Percentages)	
	1965-1975	1973-1984
Saudi Arabia	11.2	6.0
Spain	6.4	1.6
U K.	2.8	1.0
Norway	4.0	3.7
India	3.9	4.1
Nigeria	9.7	0.7
South Korea	---	---

– Not provided
Source: World Bank, 1986, pp. 182-183.

6.23 Some economists measure strength of a certain economy by judging the behaviour of its total exports in comparison with its

total imports. In the cases of higher exports (in terms of values), a country can be judged to have positive balance of trade. Owing to the importance and to the potential effectiveness of this measure, Table Four is drawn to provide comparative figures about values and growth rates of exports and imports in Saudi Arabia and in the other six listed countries. It shows that the value of Saudi exports in 1984 was equivalent to 46,845 million Dollars (i.e. respectively 201%, 50%, 248%, 496% and 328% of the values of the 1984 exports of Spain, U.K., Norway, India and Nigeria). Therefore, of these six countries, only three (Norway, Nigeria and Saudi Arabia) had the net difference between values of exports and imports in 1984 in favour of exports, (i.e. a positive balance of trade), with a tremendously larger comparative difference in favour of Saudi Arabia (see Table Four).

Table Four: Growth of Merchandise Trade; Comparative Data.

Country	Merchandise Trade $M		Average Annual Growth Rate (percentages)			
	Exports 1984	Imports 1984	Exports *	Exports **	Imports *	Imports **
Saudi Arabia	46,845	33,696	15.0	-6.8	10.4	24.1
Spain	23,283	28,607	15.8	---	7.0	----
U.K.	94,306	105,688	5.0	4.2	6.5	3.6
Norway	18.914	13,885	8.3	6.4	8.2	3.1
India	9,437	15,002	2.4	3.3	-5.7	5.4
Nigeria	14,295	10,500	8.8	-6.5	8.7	10.1
South Korea	------	------	---	---	---	----

$M. Millions of Dollars
* the period 1965 - 1973
** the period 1973 - 1984
-- values not provided
Source: World Bank, 1986, pp. 196-197.

6.24 Table Four shows also that the exports of the U.K., Norway and India kept growing in terms of value between 1973 and 1984, although at depreciating rates. Meanwhile, corresponding rates deteriorated over the same period in Nigeria and Saudi Arabia.

This can largely be attributed to deteriorating demand and prices of oil in world markets. As described in Chapter Two, Norway had other raw materials and non-oil industries that might have compensated for the losses in oil values over the same period. That might have consequently led to a growing merchandised trade, although at slower rates, in Norway (see Table Four). On the other hand, among the six cases, only India, Nigeria and Saudi Arabia witnessed increasing annual rates in their aggregate imports over the period 1973-84, with tremendously larger comparative rates in the case of Saudi Arabia. Conversely, annual rates of imports declined signficantly in the cases of the U.K. and Norway over the same period (see Table Four). This implies two things, first; Norway and the U.K. are industrialised countries who achieved self-sufficiency in a wide range of commodities and, therefore, their need to import tended to comparatively decrease, and second; Saudi Arabia depended heavily on exporting oil and importing a wide range of commodities and equipment from abroad to satisfy domestic needs.

6.25 As shown in Table Four, the value of Saudi imports was 33,696 million Dollars in 1984, and was equivalent to 72% of the value of Saudi Exports at that time. In other words, the value of Saudi Exports in 1984 was much greater than the value of Saudi imports. The question is: What sectors of production made a major contribution to Saudi exports? Table Five provides answers to this question and creates simultaneous comparative views with the composition of exports in other countries.

6.26 Table Five shows clearly that, in the two selected years of 1965 and 1983, almost all Saudi exports fell into the categories of fuels and others. According to previous data and information, these categories represented crude and further processed oil in

Saudi Arabia. Other sectors have had negligible contributions in total Saudi exports during those two years and, probably, between and after. Conversely, various producing sectors have had considerable individual shares in the exports of the other countries listed in Table Five. In other words, these six economies are sectorally diversified but that of Saudi Arabia is primarily dependant on the oil sector. Accordingly, the value of Saudi exports should be comparatively much more sensitive to fluctuations in foreign market conditions and prices. To demonstrate this, Table Six and Figure One provide respective numerical and diagrammatic pictures that simultaneously show changes in the Saudi Balance of Trade as a function of changes in the value of oil exports and, hence, in the earned revenues. The size of the Saudi Balance of Trade continued to respond to annual changes in oil prices in a very sensitive and direct way that only Figure One can demonstrate.

Table Five: Structure of Merchandise Exports: Comparative Data.

	% Share of Merchandise Exports									
	A		B		C		D		E	
	*	**	*	**	*	**	*	**	*	**
Saudi Arabia	98	99	1	--	--	--	1	1	-	--
Spain	9	13	51	18	6	5	10	26	24	39
U. K.	7	26	10	9	7	3	41	31	35	32
Norway	21	62	28	9	2	1	17	14	32	15
India	10	18	41	29	36	14	1	7	12	31
Nigeria	32	--	65	--	--	--	0	--	2	--
South Korea	--	--	--	--	--	--	--	--	--	--

A Fuels, Minerals and Metals
B Other Primary Commodities
C Textiles and Clothing
D Machinery and Transport Equipment
E Other Manufactures
* The Year 1965
** The Year 1983
- Negligible Share
-- Shares Not Known
Source: World Bank, 1986, pp. 198-199

6.27 Referring to Table Five, shares of non-oil manufacturing industry in the value of Saudi exports were negligible in the two selected years of 1965 and 1983. This probably reflects its immaturity. It is still attempting to achieve the main objective stated by the Development Plans that calls for self-sufficiency in a wide range of commodities. However, U.K., Spain and Norway had the largest comparative manufacturing shares in their individual exports in those particular years (see Table Five). This reveals that manufacturing industries require a long time and probably the aid of technology - assuming availability of factors of production like labour, capital and raw materials - in order to participate positively and effectively in development of national economies.

Table Six: Total value of Saudi Exports, Imports and Balance of Trade over the Period 1974-1985, (Millions of Saudi Riyals: current values - not corrected for inflation).

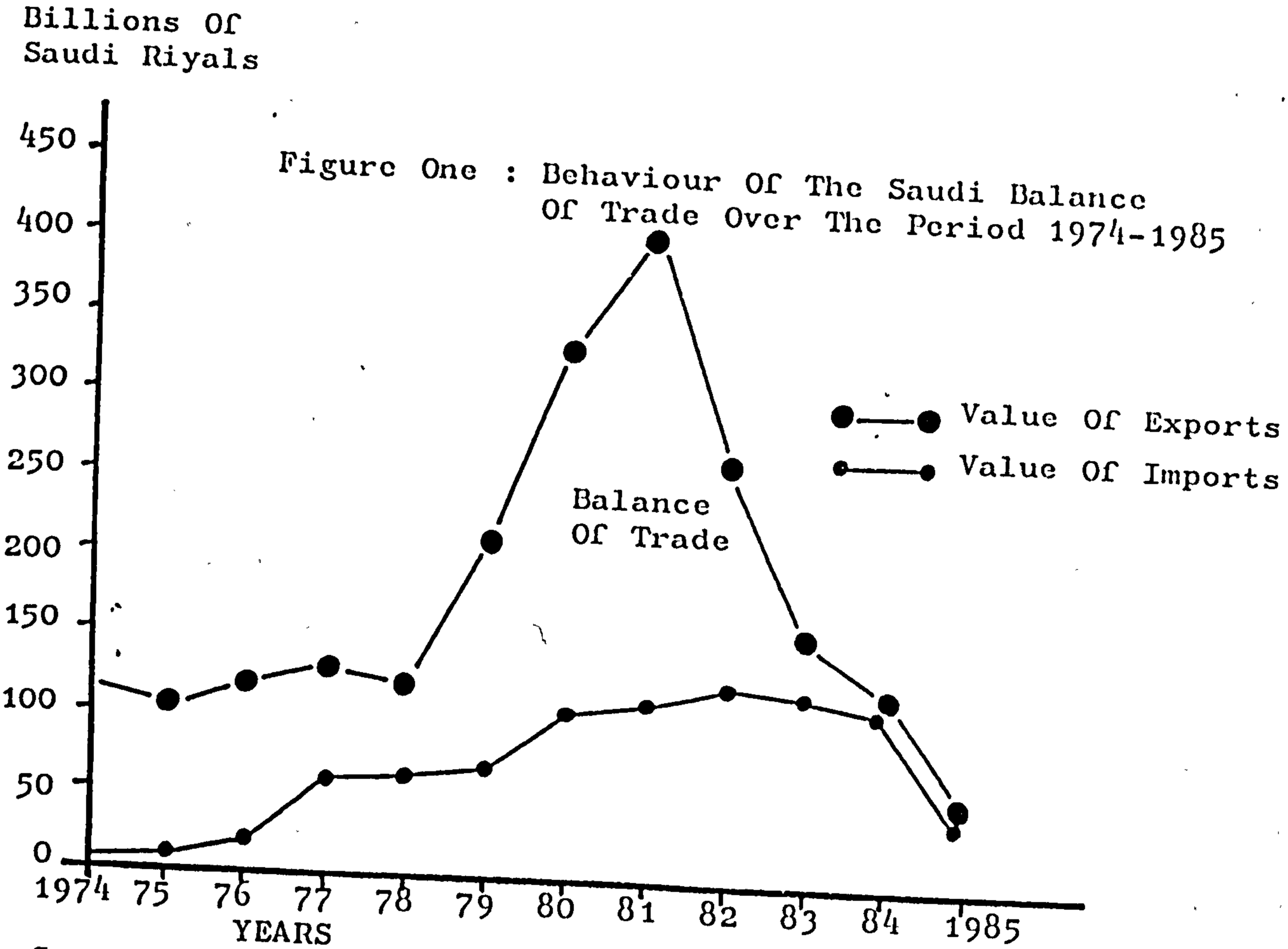
Years	Exports (000,000 S.Ryls)	Imports (000,000 S. Ryls)	Balance of Trade (000,000 S. Ryls)
1974	126,222.9	10,149.2	+ 116,073.7
1975	104,411.7	14,823.1	+ 89,588.6
1976	135,153.5	30,690.7	+ 104,462.8
1977	153,208.6	51,662.0	+ 101,546.6
1978	138,242.0	69,179.7	+ 69,062.3
1979	213,183.4	82,223.3	+ 130,960.1
1980	362,885.7	100,349.6	+ 262,536.1
1981	405,481.0	119,297.7	+ 286,183.3
1982	271,090.1	139,335.1	+ 131,755.0
1983	158,444.1	135,417.2	+ 23,026.9
1984	132,229.2	118,736.7	+ 13,562.5
1985	99,535.8	85,563.6	+ 13,972.2

Source: Central Dept of Statistics 1986, p.95

6.28 Having argued above that oil and related industries form almost all the Saudi exports and revenue earners (see Table Five), and having argued the sensitivity of the Saudi Balance of Trade (see Table Six and Figure One) to fluctuations in demand for and prices of oil, attention will be devoted in the next sub-section to highlighting impacts of the Saudi export values (i.e. revenues)

on the Government's annual budget and expenditure. This will partially help in examining the potential ability of the Saudi national economy to continuously and generously foster the proposed hierarchical system of growth and development service centres.

Figure One : Behaviour Of The Saudi Balance Of Trade Over The Period 1974-1985



Source : Developed From Table Six

IMPACTS OF OIL REVENUES ON THE SAUDI ANNUAL BUDGET

6.29 In light of the various data provided in the above sub-section, crude oil and related industries formed respectively 98% and 99% of the aggregate Saudi exports values in 1965 and 1983 (refer to Table Five in particular). The picture between these two years, and even afterwards, has probably not shown any significant difference. Furthermore, the above sub-section illustrated how the Saudi Balance of Trade kept dramatically fluctuating from one year to another throughout the 1970s and the early 1980s. That was primarily attributed to fluctuations in oil demands and prices. To translate things into money terms, the revenues of the Saudi Government should be discovered. In order to find out about the impacts of oil on Saudi revenues, oil production should be plotted against annual revenues in a single graph. If significant graphical correlation could be found between the levels of Saudi oil production and revenues, then the extent to which oil production determines the Saudi Government's expenditures could be examined through analysing the behaviour of total revenues in face of that of total expenditures. In other words, this sub-section is provided to answer two questions: first, to what extent do the Saudi total revenues respond to fluctuations in oil production? and, second, do consecutive changes in revenues - if any - exert respective impacts on the overall expenditure and commitments of the Saudi Government? The next paragraphs will attempt to answer these questions.

Saudi Revenues and Oil Production

6.30 Table Seven provides data about levels of oil production and about the respective overall revenues of Saudi Arabia over the

Table Seven: Saudi Annual Revenues in Face of Oil Production

Years	Saudi Revenues A	B	Saudi Oil Production C	D
1972	13,200	100	2,202.1	1,000
1973	22,810	173	2,773.0	1,159
1974	98,240	744	3,095.1	1,406
1975	95,847	726	2,582.5	1,173
1976	110,935	840	3,139.3	1,426
1977	146,493	1,110	3,357.9	1,525
1978	130,000	985	3,029.9	1,376
1979	160.000	1,212	3,473.5	1,577
1980	261,516	1,981	3,622.6	1,645
1981	340,000	2,576	3,581.5	1,626
1982	313,400	2,374	2,364.8	1,074
1983	225,000	1,705	1,656.9	752
1984	214,100	1,622	1,492.9	678
1985	200,000	1,515	1,158.9	526

A Million Saudi Riyals: not corrected for inflation.
B Change Index (1972 = 100).
C Million U.S.A. Barrels.
D Change Index (1972 = 1,000).

Notice: Index numbers B and D start respectively values of 100 and 1,000 for the 1972 revenues and oil production, only to prepare for better visual graphics in Figure Two.
Source: Central Department of Statistics, 1986, p.123 (for revenues) and p.71 (for oil production). The change indexes are calculated.

period 1972-1985. The Table shows clearly that both variables continued to increase dramatically and simultaneously between 1972 and 1977. A simultaneous decline in these two variables occurred in 1978 but was a temporary situation. Sudden simultaneous increases (in both variables) resumed from 1979 to peak in 1980-81. From then onwards, simultaneous deterioration has been exceptional. These data show also how Saudi revenues were initiated by oil production.

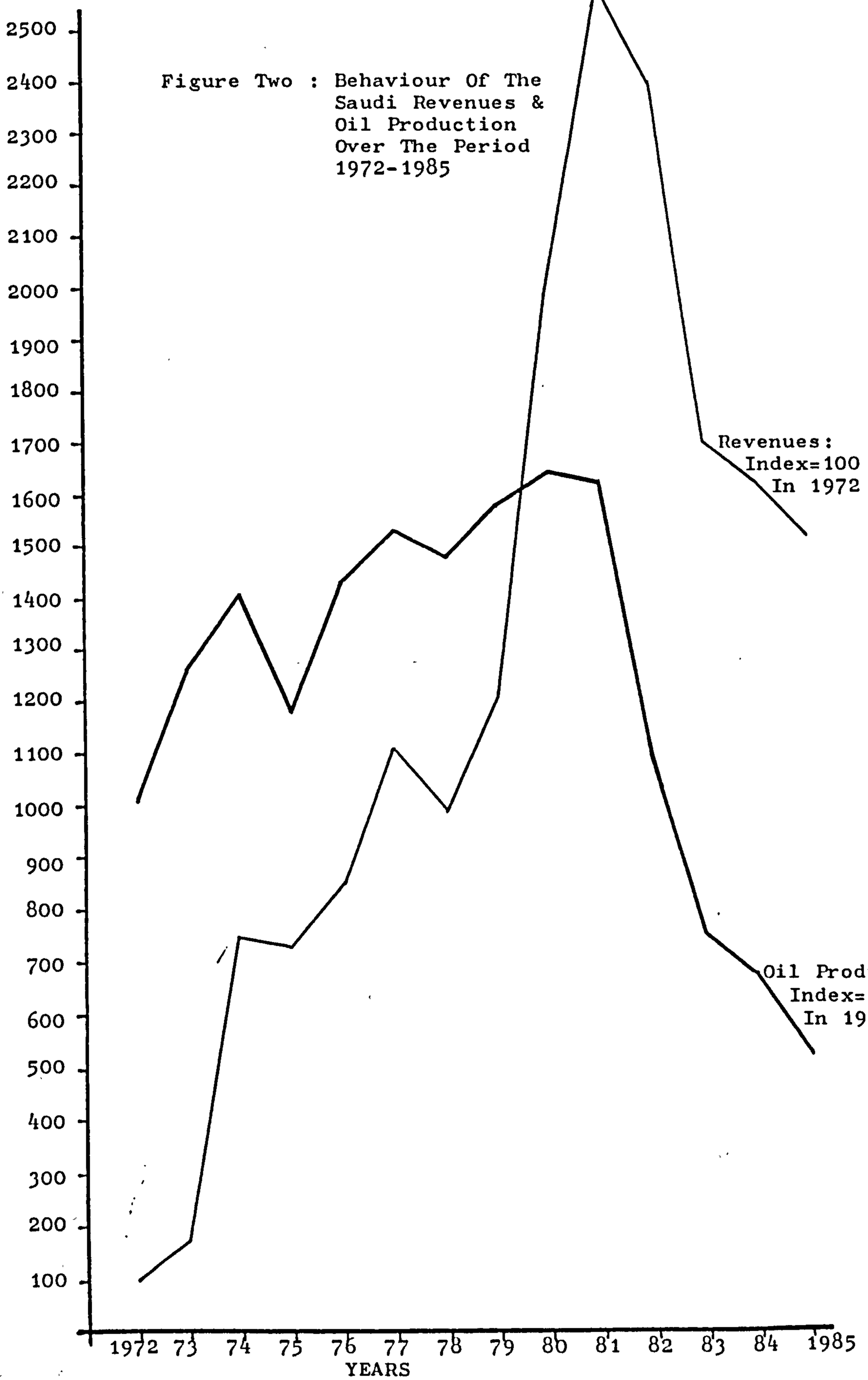
6.31 Far from applying regression tests, Figure Two uses the data in Table Seven to show a vivid causal link between changes in Saudi oil productions and revenues. The Figure shows that increases in oil production initiated Saudi revenues in 1972. Responsive fluctuations continued to occur with changes in revenues as a

function of changes in oil production. The Figure shows that oil production peaked in 1980. However, oil revenues peaked in 1981 due to the sharp increase in oil prices at that time which compensated for the simultaneous slight decrease in oil production as a result of an OPEC agreement. The point that should be clarified for our later arguments is that, since 1981-82, Saudi oil production and, hence, revenues continued to decline sharply (see Table Seven and Figure Two). As shown previously in Figure One, the same period witnessed a depreciating Saudi Balance of Trade. Therefore, oil production and exports form almost the single soul and spirit of the Saudi economy, and the single earner of Saudi revenues. Expanding from this, any predictions for the potential ability of the Saudi economy to foster a certain policy or to fulfill a certain financial commitment would be heavily dependant on future expectations and predictions of oil prices and demands: the argument that will be demonstrated in the context of the next sub-section.

Revenues in Face of Expenditures

6.32 The magnitude of the Saudi expenditure had been responding always to fluctuations in oil revenues which themselves, as argued previously, were controlled by levels of oil production in response to oil demands and prices. As explained above, Figure Two illustrated the behaviour of Saudi revenues as a linked function of oil production and prices over the period 1972-1984. Likewise, Table Eight shows that Saudi expenditure has been indirectly responding to oil production and prices, which have created annual revenues.

Figure Two : Behaviour Of The Saudi Revenues & Oil Production Over The Period 1972-1985



Source : Developed From Table Seven

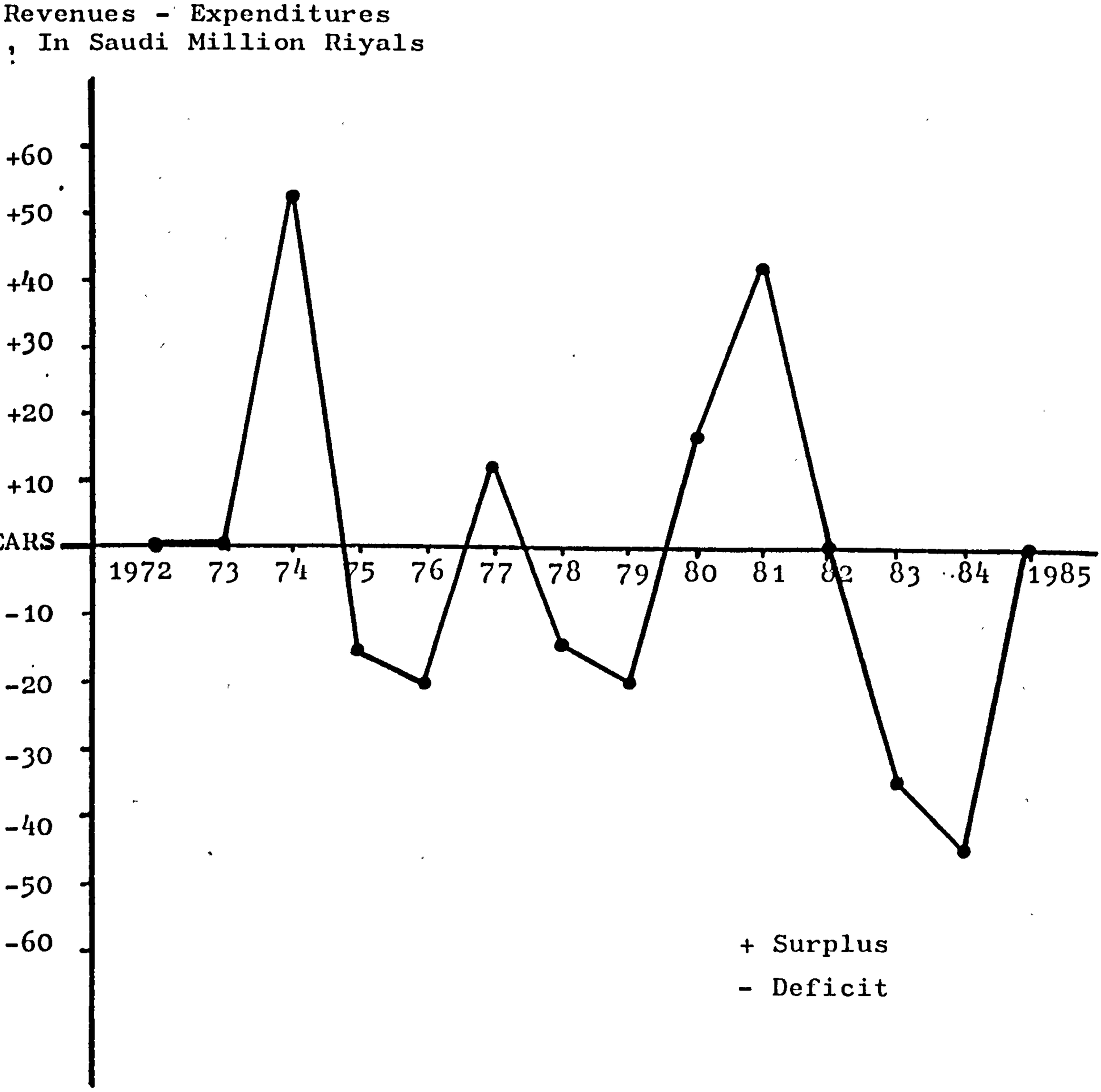
Table Eight: The Saudi Government's Budgets over the Period 1972-1985 (Millions of Saudi Riyals)

Years	Revenues (000,000 S. R.)	Expenditure (000,000 S. R.)	Differences (000,000 S. R.)
1972	13,200.0	13,200.0	0.0
1973	22,810.0	22,810.0	0.0
1974	98,247.0	45,743.0	+ 52,504.0
1975	95,847.0	110,935.0	- 15,080.0
1976	110,935.0	131,296.1	- 20,239.5
1977	146,493.0	134,253.5	+ 12,239.5
1978	130,000.0	144,558.3	- 14,558.3
1979	160,000.0	180,258.7	- 20,258.7
1980	261,516.0	245,000.0	+ 16,516.0
1981	340,000.0	297,999.8	+ 42,000.0
1982	313,400.0	313,400.0	0.0
1983	225,000.0	260,000.0	- 35,000.0
1984	214,100.0	260,000.0	- 45,900.0
1985	200,000.0	200,000.0	0.0

- S. R. : Saudi Riyals: not corrected for inflation
Source: Central Department of Statistics, 1986, p. 123. The differences are calculated by the researcher.

6.33 The 'Differences Column' (Table Eight) gives a vivid picture of fluctuating revenues in face of the usually forward planned expenditure that is unlikely to be witnessed by economies other those depending mostly on a single product. The deficits shown in budgets indicate how it is difficult to predict precisely conditions in oil markets so that expenditures can be better matched with expected revenues. Figure Three illustrates differences between Saudi revenues and expenditures (i.e. deficits or surpluses in annual budgets) over the period 1972-1985, utilising the data represented by the differences column in Table Eight. It shows that positive differences (i.e. excess revenues) peaked in 1974. But the other data in Table Eight and Figure Two show that Saudi oil production peaked in 1980 and not in 1974. However, the 1974 peak of positive differences between Saudi revenues and expenditure (see Figure Three) was underlined by two factors: first, the sudden increase in oil production at that time

Figure Three : Difference Between The Saudi Revenues And Expenditures Over The Period 1972-1985



Source : Developed From Table Eight

and prices, and second, the simultaneous comparatively low levels of expenditure.

6.34 Figure Three also illustrates that Saudi expenditure exceeded revenues throughout most of 1983, 1984 and 1985. The balance between Saudi expenditure and revenues in 1985 (see Figure Three) was far from being due to any improvements in revenues but rather was due to the noticeable cuts in the magnitude of expenditure in order to match revenues (i.e. cuts from 260,000 millions of Saudi Riyals in 1984 to 200,000 millions in 1985) - see Table Eight. Such cuts and even increases in the Saudi expenditure have always been monitored in light of expected revenues from oil.

6.35 Deficits in the Saudi annual budgets have usually been compensated for from national reserves (Department of Statistics, 1986). These deficits peaked in 1984 (see Figure Three and Table Eight). In response to these depreciating financial conditions, the Fourth Five Years Plan came in 1985 to call for giving priority of expenditure to maintaining existing projects and to increasing efficiency in utilising existing services. This illustrates the sensitivity of the Saudi national development strategies to fluctuations in oil revenues.

6.36 Subtracting total Saudi excess expenditure from total excess revenues (see Table Eight) provides the argument that, in aggregate terms, revenues exceeded expenditure in Saudi Arabia by 27,898.6 million Saudi Riyals over the period 1972-1985. This means that, up to 1985, Saudi national reserves (or revenues) were still in favour of the country and immediate needs for obtaining monetary grants from other countries to narrow budget deficits was still not needed.

6.37 Having demonstrated that Saudi Balance of Trade, revenues, expenditure and even national development strategies have been shaped by oil levels of production and prices, it is believed that Saudi dependance on oil revenues as the prime element of the economy will remain inevitable. Developing other Saudi producing sectors, especially agriculture, is a strong commitment in order to diversify the Saudi economy. Nevertheless, oil will continue to greatly dominate Saudi's exports for the foreseeable future. The question that, accordingly, lends itself to discussion is: Will oil market conditions improve so that the Saudi level of production and, consequently, revenues will improve also?

6.38 The above question contains far more uncertainties than can be easily answered in the context of this thesis and, probaly, anywhere else. However, to clarify this issue, opinions and arguments of some specialists can be helpful. Johany and others (1986, p. 14) wrote about the Saudi oil sector that:

> "It is no surprise that the oil sector is the largest single contributor to the GDP. Its relative importance, always great, fluctuates with the rate of crude oil production and its price".

In terms of impacts of oil revenues on the Saudi Government's expenditure, they (p. 19) wrote that:

> "Oil wealth has been sufficient to virtually eliminate visible signs of poverty in the country and has allowed the government to launch a very sizeable foreign programme".

6.39 Expressing the previously illustrated sharp declines in the Saudi oil production, Al-Farsy (1986, p,63) wrote:

> "From 10,000,000 barrels a day in 1980/81, Saudi Arabia reduced production to less than half that level in 1984. The consequences for Saudi Arabia's revenue are obvious, and the more modest development programme envisaged in the Fourth Five Years Plan (covering the period 1985-1990) indicates that the Kingdom is prepared to accept the consequences of attempting to stabilise oil prices by limiting oil

production in future".

In accepting further reductions in oil production as Al-Farsy predicts in the above quotation - assuming that contribution of other sectors in Saudi exports would remain limited - Saudi revenues would then keep decreasing. Consequently, and owing to the existance of causal linkages as demonstrated previously, Saudi Government would further continue to cut expenditure to match the continually depreciating revenues. Accordingly, some of the long-term policies previously committed-to (e.g. the proposed growth and development service centres) would probably face an inevitable shortage of financial support and fostering.

6.40 Al-Farsy (1986, p. 64) asked similar questions to the one above asked by the researcher, regarding the future of Saudi oil production and revenues:

> "What will happen next? What are the likely future developments in oil markets? .... Will uncertainties in the World political scene cause such price volatility that any form of prediction is impossible?".

In his first attempt to find answers to these questions, he simply admitted that:

> "There is, of course, no single, simple answer to such questions". (Al-Farsy, 1986, p.64).

Nevertheless, he identified three factors that may participate in shaping the future of oil marketing and, consequently, the future of Saudi ablity to fulfill its previously committed to developments. These factors are, according to Al-Farsy (1986), as follows:

i There is, at present, no shortage of oil. Therefore, it is a buyer's market;

ii New or increased reserves of oil are being discovered, in

Saudi Arabia and elsewhere, as existing reserves diminish; and

iii Industrial nations have made a major effort to diversify their sources of energy, including major investments in nuclear energy programmes in order to reduce their reliance on oil and vulnerability to price increases.

This, according to Al-Farsy, suggests that, unless there is a major political upheaval, the price of oil will decrease in real terms over the next few years, despite remaining an essential source of energy in all parts of the world.

6.41 Finally, having highlighted the importance of oil as the prime earner of Saudi revenues, the potential ability of Saudi Arabia to implement and to keep fostering the proposed high number of growth and development service centres is unpredictable and uncertain. As demonstrated above, the Saudi Government kept adapting expenditure to changes and to expectation of changes in oil revenues in the 1970s and in the early 1980s. Bearing this in mind, the policy of growth and development service centres was initially proposed by the Third Plan in 1980, when oil revenues and production were booming. Now, oil revenues are much reduced. In light of the above continuous cuts in expenditure, Saudi Arabia may find it necessary to defer, or even to cancel ,some of the previously committed-to demanding projects, in context of monitoring expenditure in light of revenues.

6.42 Having examined the potential ability of the Saudi economy to foster the proposed policy of growth and development service centres – as an example, attention will be given in the next section to examining market conditions and their potential roles in helping the proposed centres to succeed. This issue should be

viewed in context of the ones filtered in Chapter Three for study in order to illuminate the policy's potential economic viability, and implications for Saudi Arabia in general and the Al-Baha region in particular.

MARKET CONDITIONS AND THE POLICY

6.43 Economists tend to agree on the argument that four factors should be satisfactorily available in order for any productive manufacturing industry to establish and start functioning. These factors are termed 'factors of production', and are Land, Labour, Capital and Raw Materials. When established, levels of demand for final products should be adequate in order for manufacturing enterprises to gain revenues that would enable them to continue operating. Simultaneously, labour and raw materials should be continuously available to maintain the operating industries: these factors will be illustrated in Chapter Ten, the evaluator.

6.44 Economists recommend that careful studies for the adequacy of these five factors (i.e. Labour, Land, Raw materials, Capital and demand for manufactured products) should be carried out in advance of establishing an individual or a group of manufacturing industries. Such studies are termed 'Feasability Studies'. Therefore, it is believed here that the adequacy of those five factors – in relation to Saudi Arabia in general and to Al-Baha in particular – should be studied, in order to highlight marketing success potentials or problems that the proposed concentrations are likely to face.

6.45 'Capital' will be studied in a later section of this chapter in the light of exploring the potential ability of the proposed concentrations to stimulate creation of enterprises from scratch.

'Labour' will be studied when dealing with various social issues in Chapter Seven. 'Land' will be studied when dealing with land ownerships and forms in Chapter Eight, which will illuminate various settlement issues. The next sub-sections will respectively highlight matters related to 'Demand' and 'Raw Materials'. However, as mentioned above, particular reference will be made to the Al-Baha region.

DEMAND

6.46 Would there be reliable local demands for final products when applying the policy of growth and development service centres and their implied industrialisation programmes in Al-Baha? In other words, are Al-Baha local markets big and active enough to justify applying the policy as a future massive industrialisation programme? It is hard to discover a clear cut answer for such a question. This is partially because the types of intended industries and productions are not specifically pre-determined. Furthermore, according to Adam Smith, supply and demand determine the levels of prices in free market conditions. However, levels of demand can change due to changes in tastes, preferences and propensities to consume. Therefore, it is hard to judge possible demand levels without knowing about the types of intended products and then researching on such grounds. Nevertheless, in order to illuminate the general reliability of marketing conditions in Al-Baha, experiences of the factories interviewed which are currently functioning in the region will be highlighted.

6.47 None of the 8 factories interviewed in Al-Baha exports final products to overseas countries. Three of them (or 38%) – 2 for printing and 1 for blocks – sell between 98% and 100% of their

final products within the region. Two factories (or 25%) – 1 for marble and 1 for printing – sell between 75% and 80% of their final products within the region. The other 3 factories (or 38% of the total interviewed) – Foam, Plastic and Yoghurt – sell as low as 15% of their final products within the region. When they were asked why they did not sell more within the Al-Baha region, the majority answered that the quantities that they sell within the region satisfied local demand and the required prices in simultaneous styles. However, they mostly believe that local demands for their products do not increase in consequence of any cuts in the level of prices because: first, they think that their prices are reasonable and have never prevented levels of demand from increasing within the region, and second, according to them, levels of their supplies to Al-Baha markets have been geared to suit demand within the region. However, they export to other regions in order to earn revenues that can enable them to keep functioning in Al-Baha.

6.48 Setting aside the actual levels of production of these 8 factories in Al-Baha, one can find evidence to support the common opinion of 55 of the aggregate 57 factories interviewed in Yanbu and Jeddah (refer to Chapter Five), when they answered that they would not consider relocating in Al-Baha due to – among others – its weak marketing conditions. The 3 factories that sell only 15% of their individual products within Al-Baha attributed not selling more within the region to weak local demands (they manufacture Plastic, Foam and Yogurt products). They, alternatively sell 40% to 50% of their products in Jeddah – through which they transport their imported raw materials. One can ask: Why transport raw materials through Jeddah to Al-Baha (a distance of some 420 km) to be manufactured and then transport up to 50% of the final products

back to be sold in the Jeddah markets? Why not locate initially in Jeddah and save such additional transportation costs? From the answers, it was shown that the loyalties of owners to their tribes and original place of birth primarily determined their decisions to locate within Al-Baha. Therefore, the location of markets and raw materials played no clear roles in influencing their locational decisions. Due to the absence of such marketing considerations when commencing operation, none of the 8 factories interviewed in the region faced any pressures to expand in physical and in production terms.

6.49 The 3 printing factories that sell up to 100%, 98% and 75% of their individual final products (in the form of papers and printing services) within the region sell to local governmental institutions (e.g. municipalities, courts, hospitals, ... etc.) as prime customers. The one locating within Al-Baha town itself - where a high number of offices are located - sells 100% of its products within the region, while the other 2 printing factories that sell 98% and 75% of their final products within the region are located further away from those concentrations of offices. Disregarding their individual levels of production, this highlights the importance of the location of a factory as a factor that influences - amongst other things - levels of demand for its products.

6.50 Competition with imported products can push down the level of demand for a certain product. Surprisingly, unlike in Jeddah, only 1 of the 8 factories interviewed in Al-Baha suffers from such competition. The problem in this factory's opinion is that local citizens trust the quality of imported products more than they do those products which are domestically manufactured. Another kind

of competition is the one shown among the 3 printing factories in Al-Baha, who compete with each other in the absence of a minimum degree of functional linkages, co-operation, and/or integration in production.

6.51 The Yoghurt factory believes that producing any type of non-durable drink in a relatively cold area like Al-Baha is definitely a losing business. Besides that, various types of domestic yoghurt invade Al-Baha markets in Ramadan - the fasting month - and compete aggressively with this single yoghurt factory within the region, in order to satisfy the usually dramatic increased demands at that time. Accordingly, this particular factory is seriously considering relocating in a warmer region where levels of demand for its products would be higher throughout the whole year.

6.52 Finally, one can question the potential profitability of the proposed growth centres as a massive industrialisation programme in Al-Baha and in the other small backward regions, as far as demand levels are concerned. The 36 factories interviewed in Jeddah (i.e. 84% of the sample - see Chapter Five) which sell high proportions of their final products outside Jeddah attributed this to the high competition within Jeddah that would otherwise impose on them unprofitable prices. Unlike the Al-Baha factories, none of them said that the quantities which it sells within Jeddah satisfy local demand to the extent that if prices decreased demand would not consequently increase. In other words, levels of demand in Al-Baha are currently more than satisfied by the indigenous factories in terms of the particular manufactured products, as opposed to the situation in Jeddah. In order to gain profits, Al-Baha factories sell in other regions. However, if the proposed concentration policy provided for the creation and polarisation of other similar

factories to Al-Baha then local demand would not be able to justify profitable levels of production. Furthermore, not only would indigenous demand for each factory's products would deteriorate but the exegenous ones would as well. This is because, in applying the proposed policy, each of the regions to which Al-Baha factories currently export would have its own centres and industrialisation programmes that could satisfy its local demands. This would increase the vulnerability of the business to closure, especially in these backward areas.

6.53 The next sub-section will speculate about the availability of the second factor of production (Raw Materials) in Saudi Arabia in general and in Al-Baha in particular, and the potential implications of that on the proposed policy.

RAW MATERIALS

6.54 As previously stated, the availability of raw materials is a fundamental factor of production in order for any manufacturing industry to continue functioning. Because it is beyond the ability of this thesis to objectively and precisely evaluate the adequacy of raw materials in Saudi Arabia in general and in Al-Baha in particular, this issue was filtered in Chapter Three for subjective and superficial treatment. Nevertheless, secondary information, the experiences of the factories interviewed in Al-Baha and the relevant experiences of factories in Jeddah and Yanbu, will be used to examine the availability of indigenous raw materials and the potential implications of that on the proposed centres and on their industrialisation.

Overview

6.55 In order to examine exhaustively the availablity of raw materials in Saudi Arabia, aspects like geology, soil, climate and others should be taken into consideration. Alternatively, it is worthwhile for our purposes to highlight matters related only to three types of raw materials in Saudi Arabia, namely: oil and gas; water; and mineral resources. No other reliable types of raw materials can be clearly identified in Saudi Arabia.

6.56 In general terms, apart from oil and gas, the current proven natural resources in Saudi Arabia have no potential to help industrialisation programmes. In terms of spatial locations of the only reliable raw materials in Saudi Arabia, proven oil fields are located entirely in the Eastern Province, alongside which natural gas fields are concentrated. To process these crude products, there were six Saudi oil refineries in 1984, with an installed capacity of 0.9 million barrels daily (MOMRA, 1982, unpublished). All of them were also located in the Eastern Province of the Country. An additional three oil refineries are under construction, of which one is located in Jubail, the others in Yanbu (refer to illustrations in Chapter Five). Besides these, four main gas gathering treatment centres were operational by 1985, of which three were located in the Eastern Province and one in Yanbu – in the West of the Country. However, direct multiplier effects of oil and gas's physical developments would benefit only the areas in which they were located. Furthermore, backward Saudi regions (e.g. Al-Baha) for which help the policy of development service centres is primarily proposed, are unlikely to gain access to crude oil and/or gas as raw materials due to spatial separations and other various regulations and laws.

6.57 In terms of mineral resources in Saudi Arabia, considerable attention is now being given to the mining sector for two reasons, first; as one of the policies initiated for helping the national goal of achieving economic diversification and, second; in response to the increasing evidence of extensive rich mineral deposits in the country. Nevertheless, the mining and quarrying sector still accounts for less than a 1.1% share in the Saudi GDP. Therefore, at least for the next one or two decades, minerals are unlikely to become adequately proven in Saudi Arabia as reliable indigenous raw materials that could keep a high number of industries permanently functioning – if that could ever be a reality at all.

6.58 Having superficially highlighted the avalability of oil, gas and mineral resources in Saudi Arabia, the focus will now turn to the third type of natural resource that is likely to form a genuine obstacle for the proposed concentrations. Water is the main problem in Saudi Arabia. In an arid country, the availability of water can be a key element in shaping any future pattern of developments. Unlike other natural resources, water is essential for both animals and industries to survive. Every single unit of these needs water in different quantities and, probably, qualities. Concentrations of people and/or enterprises might require larger quantities of water than those required in the case of dispersions. To expand on this theme with reference to Saudi Arabia, water resources can be disaggregated into four categories, namely: Ground; Desalinated; Surface; and Reclaimed.

6.59 Assuming that quantities supplied were reasonably equivalent to quantities demanded, the non-renewable ground water (e.g. aquifers) supplied respectively 48% and 73% of Saudi national

demands in 1979 and in 1984. Bearing this in mind, the problem can better be revealed by underlining the fact that the Saudi National demand for water in 1979 was equivalent to only 27% of that in 1984 (for absolute numbers, see Table Nine).

Table Nine: Sources of water supplies in Saudi Arabia.

	1979		1984	
Source	MCM	%	MCM	%
Ground Water				
- non-renewable	1,154	48	6,480	73
- renewable	660	28	950	11
Surface water	485	21	900	10
Desalinated water	63	3	400	5
Reclaimed water	0	0	100	1
Totals	2,362	100	8,830	100

MCM: Million Cubic Metres
Source: Fourth Development Plan, 1985-1990, p.139

6.60 Surface water is the only available water supply in most of the West and SouthWest areas of the country - where Al-Baha and several other backward regions are located. Rainfall is the only source of the surface water. However, during the period covered by the Third Development Plan (1980-1985), 124 dams were constructed over the whole country (with particular concentration in the West and SouthWest), and those should have increased the overall storage capacity of rainfall water in Saudi Arabia. Nevertheless, surface water can not alone provide reliable sources of water for the proposed industrial programmes and concentrations. In light of this, all of the 8 factories interviewed in Al-Baha agreed on the phrase that 'absence of adequate and continuous sources of water in the region is genuinely the main problem of all the problems'.

6.61 As shown in Table Nine, desalinated water became increasingly useful. This was a response to the expanding needs of the growing cities that were located adjacent to the only bodies of

salt water, e.g. Jeddah, Dammám, ... etc. The problem associated with this particular source of water is underlined by the associated high costs. However, it provided the second lowest levels of Saudi national water demands in 1979 and in 1984 after the reclaimed water (see Table Nine) but with, probably, much higher comparative costs.

6.62 Apart from these apparently limited mineral and water resources in Saudi Arabia, the existence of reliable non-oil raw materials is very much in doubt. Exceptions are some building raw materials – e.g. gravel and sand. This could lead to heavier reliance on imported raw materials if the proposed growth centres were applied in the form of vast simultaneous industrialisation programmes. Threats of losses due to such possibly heavy reliance on imported raw materials have already been discussed in various sections of Chapter Five.

6.63 Have the factories currently operating in Al-Baha and in other regions been faced with shortages in non-oil indigenous raw materials? If yes, how have they coped with the problem? The next sub-section will illustrate such matters, so that actual experiences can be introduced to the scene.

Pragmatic Experiences

6.64 As has been thorughly studied in Chapter Five, of the aggregate 57 factories interviewed in Jeddah and Yanbu, 31 (or 54%) import 100% of their individual raw materials from overseas countries, 6 (or 11%) import between 95% and 98%, while 9 (or 15%) import between 60% and 80%. In aggregate terms, 46 (or 81%) of the total 57 factories interviewed in Jeddah and in Yanbu import between 60% and 100% of their mostly non-oil raw materials from

abroad. The remaining 11 factories rely heavily on oil-related and/or on building raw materials and, consequently, obtain them mostly from within the country.

6.65 Out of the 8 factories interviewed in Al-Baha, 5 (or 63%) import 100% of their raw materials from abroad and transport them through Jeddah – the nearest sea-port (i.e. 420km away). The block factory obtains 80% of its raw materials (gravel and sand) from within Al-Baha. Although obtaining 100% sales from within the country, the Al-Baha Marble and Yogurt factories do not obtain any of their raw materials from within the region apart from water. Therefore, although locating in Al-Baha, 7 (or 88%) of the 8 factories interviewed in the region obtain all their raw materials from areas outside the region. In light of that, the proposed non-oil industrialisation programme in Al-Baha (just like other regions throughout the country) would suffer from the absence of reliable raw materials and that could increase the vulnerability of enterprises to closure at a future date due to possible consecutive losses. The problem could be intensified in the backward areas that locate far from ports and, probably, from big markets.

6.66 Likewise, the 149 metal, carpentry and car workshops intervieed in Al-Baha mostly admitted that they obtain all their raw materials either directly from places within larger cities or from local shops that buy them originally from those cities.

6.67 Finally, 55 of the 57 factories interviewed in Yanbu and Jeddah would not think of relocating in Al-Baha due to several factors (as will be outlined in the next secion), of which absence of raw materials and remoteness from sea-ports is a vital one.

6.68 Having demonstrated matters related to two important factors of industrialisation production and progress (i.e. demand and raw

materials), attention will now be devoted to highlighting matters related to the third factor of production: 'Capital'. To do so, the next section will examine the potential ability of the proposed centres to polarise and to stimulate the creation of enterprises from scratch. The other two production factors ('Labour' and 'Land') will be respectively studied in context in Chapters Seven and Eight.

POTENTIAL ABILITY OF THE PROPOSED CENTRES TO STIMULATE POLARISATION AND CREATION OF ENTERPRISES

POTENTIAL ABILITY OF THE PROPOSED CENTRES TO POLARISE ENTERPRISES

6.69. Among the active theoretical mechanisms attributed to concentrated functionally-linked enterprises is their ability to polarise enterprises from other areas. This and other theoretical mechanisms were exhaustively discussed in Chapter One, and were referred to in several instances afterwards. In practice, most of the cases studied in Chapters Two and Three demonstrated that enterprises tend to move to areas of artificial concentrations for the purpose of enjoying incentive advantages in the first place. They rarely move to enjoy benefits related to external economies that are, in theory, led by Perroux's propulsive industry. Likewise, none of the aggregate 57 factories interviewed in Jeddah and Yanbu located in these industrial areas for advantages other than those connected with financial incentives and infrastructure (refer to Chapter Five). Nevertheless, all the concentrations referred to provided varied ranges of jobs and, probably, intangible economic impacts. Whatever the prime attractions were, the first step towards achieving such, albeit limited, successes was polarising enterprises either to problem

areas (e.g. in Norway) or to areas of prosperity for economic developments (e.g. The Korean and Nigerian Industrial Estates). Accordingly, the question set for discussion in this sub-section is: Could the proposed growth and development service centres in Al-Baha polarise enterprises from outwith and from within the region ? This question is important to study since the proposed policy aims - amongst other things - at providing work-to-worker conditions in favour of the backward regions (refer to P.6.09).

6.70 As explained in Chapter Five, only 2 factories (or 5%) of the 43 interviewed in the Jeddah Industrial Estate would move to Al-Baha if incentives there became similar to those provided in the Jeddah Estate. However, as previously spotlighted, those 2 factories would be pushed by their inability to face aggressive competition from similar imported products in Jeddah, rather than beingpulled by any better marketing and/or production conditions in Al-Baha. None of the other 41 factories interviewed in Jeddah nor any of the 14 factories interviewed in Yanbu would locate in Al-Baha. Among their reasons for this collective attitude is their perception of market conditions (i.e. demand) and factors of production (especially the availability of skilled labour and access to raw materials) as being comparatively weak in Al-Baha. As outlined in Chapter Four, the Jeddah Estate and the Yanbu City were studied in particular due to their closer spatial proximity to Al-Baha. Bearing all these in mind, Al-Baha centres would not be able to polarise or to attract factories from these neighbouring areas. Therefore, their success would depend heavily on their ability to: first, polarise enterprises from within the region and/or second, create enterprises from scratch.

6.71 Could the proposed centres in Al-Baha stimulate polarisation or attraction of enterprises from within the region? As justified in Chapter Four, factories, car workshops, carpentry shops and metal shops were chosen for a detailed questionnaire survey (see Appendix One), as the four types of enterprises that could exert effective external ecnomies and spatio-economic impacts on their surrounding areas if they became concentrated within Al-Baha - assuming their inter- and intra-functional linkages. According to the survey, none of the 8 factories interviewed in Al-Baha would move to any of the proposed centres. They collectively believe that such relocations would not lead to any beneficial consequences on their productivity but rather would add to them potentially non-refundable financial and time costs. However, the functional linkages between these factories are absent and, therefore, having them concentrated in a single or in various places would not generate benefits that could be led, at least in theory, by propulsive industries and external economic mechanisms. Under such circumstances, these factories would be concentrated in physical terms but dispersed in functional terms, similar to almost all the industries interviewed in Jeddah and Yanbu. Alternatively, would the Al-Baha workshops relocate in the proposed centres?

6.72 Prior to explaining the attitudes of the car workshops, metal shops and carpentry shops that were interviewed in Al-Baha towards relocating in the proposed centres, it is worthwhile highlighting the reasons and factors that led them to select their current locations. As clarified in Chapter Four , 85% of the aggregate workshops in Al-Baha locate along both side of the main inter-regional Taif-Abha road. Bearing in mind that all these workshops use raw materials that are transported along the Taif-

Abha road (from Jeddah), it can be argued that areas on both sides of this road represent the closest and the most accessible zone to the source of raw materials. Accepting and assuming, although without substantial evidence, that the 85% of total workshops in Al-Baha which locate along the sides of the Taif-Abha road have partially chosen their locations in order to be accessible to transported raw materials, one can ask about the role of demand in regulating selection of such locations. That is to ask: Had locaton of customers influenced locational decisions of these workshops? According to Christaller (translated by Baskin, 1966), Englander argued that it is not only the location of raw materials that determine the location of a manufacturing enterprise but also the location of market. We assumed that location of raw materials had something to do with locational decisions of these workshops but, more importantly, what about the role of customers' locations? Illuminating this issue will help in understanding the extent to which market conditions influenced, and could influence, the locational decisions of the workshops concerned.

Table Ten: Status of the Al-Baha Workshops' Customers (The answers to the Question: Who Are Your Customers?).

Category	A	B	Totals
Car workshps	58	8	66
Carpentry shops	0	23	23
Metal shops	3	57	60
Totals	61	88	149

'A' Mostly the users of the Taif-Abha road.
'B' Mostly the residents of the surrounding villages.
Source: A questionnaire survey carried out by the researcher in April and May 1988.

6.73 As clearly shown in Table Ten, the total of the workshops interviewed in Al-Baha was 149, of which 66 (or 44%) are car workshops, 23 (or 16%) are carpentry shops and 60 (or 40%) are

metal shops. They all form 85% of the total workshops in the region (as estimated by the Al-Baha municipality) and, as mentioned above, locate along both sides of the Taif-Abha inter-regional road (refer to Figure Five, Chapter Four). Of the aggregate 149 workshops interviewed in Al-Baha, 61 (or 41%) reported that their customers were mostly users of the Taif-Abha road. Of these 61, 58 (or 95%) are car workshops. Users of this road who form most of these workshops' customers can be both Al-Baha residents and through traffic heading to major cities like Abha in the South and Jeddah, Makkah and Taif to the north-west of Al-Baha. Therefore, these 58 car workshops which form 88% of the 66 car workshops interviewed in the region - see Table Ten - located along the sides of this road, probably, to be closer to customers who, as reported above, are users of this road.

6.74 As many as 59% (i.e. 88 workshops) of the aggregate 149 workshops interviewed in Al-Baha reported that their customers were mostly residents of the surrounding villages. Why then did they not locate in these villages where their customers lived? In an age of extensive car usage, the advantages of accessibility probably enable these workshops to achieve satisfactory levels of thresholds (i.e. customers) by locating along the sides of this main road, which could have greater accessability to a high number of local villages . Therefore, not only the car workshops but also the carpentry and metal shops in Al-Baha had located in areas where profitable thresholds could be attained with a reasonable range of goods (ranges became primarily achieved in terms of driving time). In other words, despite constraints of land ownerships and conservatism against selling lands (as will be demonstrated in Chapter Eight), all these workshops seem to have had some

Table Eleven: Attitudes of the Workshops in Al-Baha Towards Moving to the Proposed Areas of Concentrations.

Category	Would not move	Would move	Total
Car workshops	37	29	66
Carpentry shops	12	11	23
Metal shops	33	27	60
Totals	82	67	149

Source: A questionnaire survey carried out by the researcher in April and May 1988.

marketing considerations, besides others, behind their locational decisions. Having argued that, how many of these workshops would move to the proposed fostered growth centres in the region?

6.75 According to the data provided in Table Eleven, 82 workshops (or 55% of the grand total) would not move to the proposed areas of concentrations and incentives while only 67 (or 45%) would move. Of the 82 workshops that would not move, 37 (or 45%) are car workshops, 33 (or 40%) are metal shops while the remaining 12 (or 15%) are carpentry shops. Of the 67 workshops that would move, 29 (or 43%) are car workshops, 27 (or 40%) are metal shops while the remaining 11 (or 17%) are carpentry shops (see Table Eleven). Therefore, despite incentives, 55% of the grand total of workshops interviewed in Al-Baha would not relocate in the proposed centres - if free market conditions (e.g. ranges and thresholds) alone would control their decisions to relocate. As elaborated upon above, these attitudes could be attributed mostly to the advantages of accessibility that would enable those workshops to obtain profitable thresholds in their current locations: along the sides of the main Taif-Abha Road. They simply do not want to relocate for incentives at the expense of their future thresholds (i.e. loss of customers). However, the data gathered during the questionnaire survey carried out highlights other possibly hidden reasons that could strongly determine those workshops' attitudes towards

relocating in the proposed centres. The question is: What are those possible reasons?

6.76 A closer study of the data gathered about those workshops that would not and about those that would move to the proposed fostered concentrations enabled the formulation of Tables Twelve and Thirteen respectively. However, the grand totals in these two tables are the totals of columns in Table Eleven. Therefore, Table Eleven should be treated as the mother of the other two consecutive tables and a logical start to providing an understanding of what Tables Twelve and Thirteen are intended to reveal.

Table Twelve: Statistics about the Al-Baha Workshops Which Would Not Move to the Proposed Areas of Concentrations.

Category	Bought the site	Inherited the site but paid to level it	Others *	Totals
Car workshops	16	14	7	37
Carpentry shops	5	5	2	12
Metal shops	11	21	1	33
Totals	32	40	10	82

* Others stands for the ones who inherited their sites in a well levelled status besides the tenants.

Source: A questionnaire survey caried out by the researcher in April and May 1988.

6.77 According to Table Twelve, 40 (or 49%) of the total 82 workshops that would not relocate in the proposed areas of concentrations inherited their sites but paid to have them initially levelled for development. Other 32 workshops (or 39%) bought their sites in locations which they mainly initially perceived as being of good proximity to customers and of good accessibility to transported raw materials. (i.e. perceived profitable threshold). In other words, 72 (or 88%) of the total 82 workshops that would not relocate within or outwith the regional concentrations had either inherited their sites but paid to level

them or bought them, or both. Furthermore, the remaining 10 workshops (only 12% of the total 82) that would not move to the proposed areas of concentrations either inherited their sites in a well-levelled state or were tenants (see Table Twelve). Therefore, it can be safely argued that most of the Al-Baha workshops that would not relocate in the proposed areas of concentrations paid more to become initially settled in their current sites and, as implicitly understood, thought that relocating in such areas would mean some kind of non-refundable loss to them. In other words, it seems that they perceive the issue of relocation as being not worth the effort, neither would benefits from relocation compensate for the initial costs of buying and/or of levelling their existing sites.

6.78 Of the 67 workshops that would move to the proposed areas of concentration (refer to Table Eleven), 37 (or 55%) are tenants who are paying monthly rents, 26 (or 39%) inherited their sites in well-levelled status (i.e. paid nothing to get them initially prepared for development) while the remaining 4 workshops (only 6%) inherited their sites and paid to level them and/or bought them originally. (see Table Thirteen). In aggregate terms, 94% (or 63 workshops) of the total 67 workshops that would move to the proposed areas of concentrations either inherited their sites in well-levelled status or are tenants. This implicitly means that they would not lose much when relocating in the proposed fostered concentrations but rather, especially in the case of being tenants, would gain. Therefore, the opportunity costs associated with their relocation are much less than in the other previously described cases in relation to the data in Table Twelve. Bearing all this in mind, it could be safely argued that not only demand and threshold

Table Thirteen: Statistics About the Al-Baha Workshops who Would move to the Proposed Areas of Concentrations.

Category	Tenants	Inherited the site in a well levelled status	Others *	Totals
Car workshops	13	13	3	29
Carpentry shops	7	3	1	11
Metal shops	17	10	0	27
Totals	37	26	4	67

* Stands for the workshops who inherited sites but paid to get them levelled besides the ones who bought sites originally.

Source: A questionnaire survey carried out by the researcher in April and May 1988

measures shaped attitudes of the 149 workshops interviewed in Al-Baha towards relocating in the proposed areas of concentrations but, although implicitly revealed, also probably the opportunity costs associated with relocation, especially in face of the original costs of buying or levelling the sites of existing premises.

6.79 To sum up, the 8 factories interviewed in Al-Baha would not move to the proposed areas of concentrations due to, according to them, various opportunity costs associated with relocation. They agreed on the argument that, when established in one place it becomes extremely difficult and costly for a factory to relocate. Likewise, only 67 (or 45%) of the aggregate 149 workshops interviewed in Al-Baha would move to the proposed areas of concentrations. It has already been demonstrated that the proposed centres within Al-Baha would not be able to polarise outwith enterprises. Bearing all these in mind, the success of the proposed centres would, accordingly, depend heavily on their ability to stimulate the creation of enterprises from scratch.

Would they succeed in that? The next sub-section will examine this issue.

POTENTIAL ABILITY OF THE PROPOSED CENTRES TO STIMULATE CREATION OF ENTERPRISES FROM SCRATCH

6.80 As highlighted in Chapter Five, 81% (or 46 factories) of the aggregate 57 factories interviewed in the Jeddah Industrial Estate and in Yanbu Industrial City, had initially established or relocated in these two industrial areas primarily to enjoy advantages of the concentrated incentives. Availability of almost free land and various types of required infrastructure in these areas, together with up to 50% of costs as an interest-free loan offered by the Saudi Industrial Development Fund (SIDF), played a great role in stimulating the creation of almost all of those 46 factories in both areas. An indirect evidence of this is that 41 (or 89%) of them reported that they would not be functioning in these areas if incentives were removed. Furthermore, 29 of them (or 63%) admitted that they would not be able to start without the help of the incentives provided in these industrial areas, and of the loans. This reveals that these areas succeeded in stimulating the creation of new enterprises but, not surprisingly, through providing incentives rather than being perceived as areas where advantages of external economies could also be generated. The question is: Bearing in mind the comparative differences between availability of factors of production in these areas and in Al-Baha, would the proposed centres in Al-Baha succeed in stimulating creation of new enterprises from scratch ?

6.81 The above question will be answered in relation to the two types of population: first, the interviewed heads of households in

the study village within Al-Baha; and second, the wealthy people interviewed within Al-Baha. Representiveness of the attitudes of these two populations to the attitudes of all inhabitants of Al-Baha has been partially assumed and partially justified in Chapter Four.

Would The Al-Baha Citizens Invest In The Proposed Centres?

6.82 Selection of Qezzanah as a study village within Al-Baha has already been justified in Chapter Four: as argued above, its representativeness to the whole area of Al-Baha in terms of some attitudes and to the potentially non-central villages in terms of other attitudes, has been partially assumed and partially demonstrated in Chapter Four. Consequently, the ability of the proposed centres in Al-Baha to stimulate the creation of enterprises from scratch could be partially illustrated through asking hypothetical questions of the 116 heads of housholds living in Qezzanah (refer to Figure Eight, Chapter Four). Tables Fourteen and Fifteen convert their answers into categorised numerical data.

6.83 A logical approach to examining the potential ability of the proposed centres to stimulate the creation of new enterprises and investments, is besides interviewing rich people as will be highlighted shortly, to: first, discover the number of those who would invest if they had money and without the policy conditions; second, establish the number of those who would invest if they had money and with the policy conditions; and third, subtract the total in the former from the total in the latter. To do so, the first question asked of the 116 heads of households in the study village regarding this matter was: If you had money to invest, would you establish your own enterprise? The relevant answers are represented

Table Fourteen: If You Had Enough Money To Invest Would You Establish Your Own Enterprise? A Question Asked of Heads of Households in Qezzanah.

Educational levels of Respondents	Would invest	Would not	Don't know	Totals
Highly Educated *	4	1	0	5
Fairly well Educated **	3	16	6	25
Educated ***	3	13	4	20
Illiterate ****	5	57	4	66
Totals	15	87	14	116

* Holders of University Qualifications
** Holders of Intermediate and Secondary School Qualifications
*** Holders of Elementary School Qualifications
**** Unable to Read or Write.
Source: A questionnaire survey carried out by the researcher in April and May 1988.

in Table Fourteen. An assumption was that the awareness of people towards their duties to participate in helping micro and macro economic conditions as well as their self-confidence in their abilities to run individual enterprises, all increase with the level of educational qualifications. Bearing this in mind, Table Fourteen shows clearly that, of the 116 heads of households interviewed, 87 (or 75%) would not invest in establishing individual enterprises, 15 (or 13%) would, while the remaining 14 (or 12%) do not know. Of the 87 who would not, only 1 is highly educated while 57 (or 66%) are illiterate. Of the 15 who would, 4 (or 27%) are highly educated while 5 (or 33%) are illiterate - representing respectively 80% and 8% of the total of highly educated and of the illiterate heads of households interviewed. This shows that the attitudes of people towards establishing individual enterprises would probably improve as those people concerned become better educated. However, the important point to keep in mind is that only 13% of the total heads of households

interviewed in Qezzanah (i.e. 15 persons) would invest in establishing individual enterprises without the policy conditions, if they had enough money to invest.

Table Fifteen: If: A – You Had Enough Money to Invest; and
B – Infrastructure Services and Incentives Became Generously Provided in Concentrated Forms Within Al-Baha and in Other Regions;
Would you then Invest in Establishing Your Own Enterprise? If Yes, Where?:
Question Asked of Heads of Households in Qezzanah

Educational levels of respondents	Would you Invest			If Yes , Where			
	Yes	No	Don't know	A	B	C	D
Highly	5	0	0	1	0	4	5
Fairly	6	13	6	3	0	3	6
Educated	5	11	4	2	0	3	5
Illiterate	7	55	4	2	0	5	7
Totals	23	79	14	8	0	15	23

'A' In areas of concentrations within Al-Baha.
'B' Outside concentrations, but within Al-Baha.
'C' Outside the region.
'D' Total of potential investors under the above hypothetical assumptions.
Notice: Levels of education were explained under Table Fourteen.
Source: A questionnaire survey carried out by the researcher in April and May 1988.

6.84 The second question asked of the heads of households in the study village within Al-Baha in order to discover their attitudes towards establishing individual enterprises assumed two simultaneous conditions: first, as assumed in the first question, they had enough money to invest; and second, the policy of concentration and their incentives would be implemented. The precise wording of the question and the relevant answers consequently gathered are embodied in Table Fifteen. Keeping these hypothetical assumptions in mind, investors would increase from 15 (or 13% of total heads of households interviewed) without the policy conditions – see Table Fourteen – to 23 (or 20% of total)

investors in the case of applying the policy – see Table Fifteen. However, only 8 (or 35%) of the 23 with-policy investors in this village would invest within the Al-Baha region (see Table Fifteen). If we bear in mind the assumption that the financial ability of those 8 potential investors that would enable them to establish new enterprises is not real, but rather an assumed one in the questions asked, then the ability of the proposed growth and development service centres to stimulate creation of enterprises would actually require a long time to exhibit any degree of success. However, to speculate more realistically about this issue, the next sub-section will analyse the attitudes of the rich people interviewed towards the same issue.

Would The Al-Baha Rich Businessmen Invest In The Proposed Centres?

6.85 To discuss this issue, 7 rich people were interviewed within the Al-Baha region. For general information, 3 of them are aged between 35 and 45 years of age while the remaining 4 are aged between 46 and 55 years, All of them are originally from different places within Al-Baha. They, just like other residents of Al-Baha, have inherited properties, and relatives within the region. They are known to almost all the Al-Baha inhabitants – especially to their generations – as rich and wealthy and with great loyalty to the region. Three of them hold University qualifications, 2 are educated up to secondary school level and the other 2 hold only elementary school certificates. All of them are self-employed : 3 run individual factories in the Jeddah Industrial Estate (Plastic, Tanks and Concrete), 1 runs an enterprise for Marine services in Jeddah, 1 runs a factory for Paints in the Dammam Industrial City and the remaining 2 have individual contracting enterprises in Jeddah. The question now is: What are their attitudes towards

investing in Al-Baha in conditions either with, and without policy?

6.86 Despite their loyalty to the region, all of them established enterprises in major cities. According to the survey, none of them would move to the without-policy Al-Baha, nor would any establish a new enterprise in the region. In the case of applying the proposed policy of fostered concentrations in Al-Baha – their original region , 3 of them (all running businesses in Jeddah) would think seriously of having distributors for their final manufactured products in the region, but not of relocating in it. The 3 of them argued that incentives would not improve market conditions within Al-Baha, but rather would increase intra-regional market competition. The other 4 would not relocate nor would they establish enterprises or even distribution terminals in Al-Baha under any circumstances, mainly due to the weak market conditions in the region – according to them.

6.87 All 7 of them like to see their sons (one does not have a son but hopes to have one soon) running individual enterprises. However, only 2 of them would like to see their sons' businesses taking place within Al-Baha, providing that intra-regional market conditions would be viable. Three of the 7 businessmen argued that incentives could stimulate the creation and, probably, relocation of enterprises in the Al-Baha region but they could not help them to keep functioning permanently: in the long run, impacts of incentives could be outweighed by inadequate market conditions.

6.88 To conclude, according to the survey carried out for 116 heads of households and for 7 rich people in Al-Baha, the proposed growth and development service centres would not demonstrate clear and satisfactory success in terms of stimulating creaion of enterprises from scratch. A limited possible success in this

respect would be achieved only after a long time, and that may not be fast enough to respond to the current needs of the region for spatio-economic development and probably for competitive employment. Likewise, it has been demonstrated that the proposed centres would achieve only limited success in terms of polarising out-of-region and within-region enterprises. This would raise the opportunity costs of applying this policy in face of the required generous and continuous types of incentives in order to both implement and continue fostering the policy. If Al-Baha was representative of the other backward regions in Saudi Arabia for which help this policy is primarily proposed, then the proposed centres would fall short of the optimistic spatio-economic aims and expectations stated for them by the Saudi Development Plans.

6.89 *Finally, it is worthwhile to summarise the main findings of the various studies made in this chapter, as follows:*

i. *The policy of hierarchical growth and development service centres is proposed in Saudi Arabia for – among other multi-disciplined aims – assisting the backward areas to develop productive activities that will enable them, first, to retain their population and, second, to better contribute in the diversification of the Saudi economy, and for concentrating the infrastructure services in areas to where – for the purpose of enhancing service efficiency measures – inhabitants could be attracted;*

ii. *At least in principle, there are various trade-offs between the simultaneous achievement of the national economic efficiency goals and the regional (or social) equity standards. (refer to P. 6.12). Best achieving one, can only be at some expense of satisfying the other;*

iii. *Unlike almost all the economies referred to in this chapter, the Saudi Arabian relies primarily on oil as the single reliable earner of external revenues. The Saudi Balance of Trade, revenues, expenditure and even commitments to pre-planned development programmes have been sensitively monitored in response to oil revenues, despite the witnessed growth in the agricultural and non-oil manufacturing sectors. Due to the vast range of uncertaintities that surround the future of oil markets, it is as uncertain – despite the commitments – that the proposed high number of centres in the Saudi backward areas will be continuously and generously fostered, bearing in mind the potentially expected weak and slow impacts of those rural industrial centres on the national economy;*

iv. *The Al-Baha factories over-satisfy local demands in terms of the products that they manufacture. In order to remain functioning in Al-Baha, they export to surrounding regions. In the case of applying the proposed hierarchical (industrial) centres, endogenous (i.e. within-region) and exogenous (i.e. outwith-region) levels of demand would deteriorate, due to increasing competition. This could increase vulnerability of rural industries to closures;*

v. *Lack of raw materials lead the Al-Baha factories to rely mostly on imported ones. If conditions in Al-Baha are representative of those in the other backward reions – the regions for which help the policy of hierarchical centres was proposed, then the additional costs associated with transporting imported raw materials from port cities could accumulate and negatively influence the revenues obtained by*

such rural industries: this could be intensified by the above expected deteriorations of demand, due to the expected increase in competition – should the policy be implemented. This could also increase the vulnerability of the rural industries to closures;

vi. *The proposed rural centres are declared in this chapter potentially unable to polarise outwith-region enterprises, mally due to the perceived comparatively weak marketing conditions in the region. The within-region workshops which expressed their willingness to relocate in the centres are mostly tenants, who will be pushed from their locations rather than pulled by the centres. The 8 factories interviewed in Al-Baha would not relocate, due to being convinced that benefits due to relocation would not compensate for the associated costs; and*

vii. *Not only being potentially unable to polarise entrprises but also, the studies made enabled declaring the proposed (industrial) centres in the Saudi backward areas potentially unable to effectively stimulate the creation of enterprises from scratch. This poses doubts on the economic viability of the rural centres, bearing in mind the required vast range of financial and infrastructure service incentives.*

The above concluding points are deemed potentially capable of helping in illuminating Chapters Ten and Eleven on the evaluation of the potential viability of the policy and on the formulation of proposals, respectively. Chapter Seven will proceed next to study the previously filtered (in Chapter Three) Social Issues.

CHAPTER SEVEN: SOCIAL ISSUES

7.01 *This chapter aims at exploring the social factors that are likely to constrain or to stimulate success in the proposed hierarchy of growth and development service centres in Saudi Arabia, with particular reference to the Al-Baha region. In a similar style to that followed in Chapter Six, this chapter will start by commenting on the social justifications and aims stated for the proposed policy to achieve, and proceed to study the availability of Saudi manpower, the social conservatism against immediate and effective participation in industrialisation, and the likelihood of migration from non-central to central places.*

SOCIAL JUSTIFICATIONS OF THE POLICY IN SAUDI ARABIA

7.02 The bulk of justifications and aims stated by the Third and Fourth Development Plans (1980-1990) for applying this type of policy in Saudi Arabia put great emphasis on and showed vivid adherence to the theoretical mechanisms attributed to concentrated developments, and discussed in Chapter One. As argued previously, these aims and justifications have been disaggregated for our purposes into economic, social, settlement and institutional fields, although they overlap in some cases. This demonstrates that the policy is proposed in Saudi Arabia not only for generating spatio-economic developments in the backward regions, but also for exerting some social and institutional improvements and positive impacts. The Economic Justifications and aims of the policy in Saudi Arabia have already been discussed in Chapter Six. The Settlement and Institutional Justifications and aims will be respectively and critically highlighted in Chapters Eight and Nine. In this particular section, the social aims and reasonings behind

applying the policy in Saudi Arabia will be critically extracted from various relevant publications.

7.03 The Third Development Plan (1980-85) Identified three key elements for the Saudi regional strategy, of which the second is geared towards:

> "The more equitable distribution of socio-economic opportunities and wider access to public services in line with the promotion of productive activities and individual initiatives" (MOP, 3rd Plan, 1980-85, p. 108)

Referring to this quotation, three consecutive points can be raised: first, the Saudi regional strategy is a young one, that is represented by almost no formal actions but by the recently proposed hierarchical pattern of growth and development service centres; second, having argued that, these centres are deemed by the plan to be a suitable regulatory means of providing for development services (e.g. agricultural banks - see chapter Eight), in various parts of the country, so that better social equity could be achieved all over the country; third, through providing for centrally concentrated development services, these centres are viewed by the plan as possible motivators for spatio-economic development as they would stimulate promotion of productive activities and involvement of private sector initiatives. However, attempting to stimulate socio-economic development in various parts of the country and spreading benefits in decentralised concentrated forms are some of the explicitely announced social aims of the policy.

7.04 In another place, the Third Development Plan (1980-85, p. 108) said that:

> "This system of development service centres is deemed the best method of both stimulating development

activities and aiding the most deprived sections of the population".

The terminology used of "development service centres" implies that these centres will primarily function to provide development services that would stimulate development of local activities and potentials: the functions of the centres will be highlighted in Chapter Eight. In doing so, the backward areas would - according to the plan - be developed and hence better job opportunities would be provided. Such conditions are deemed helpful to the "most deprived population" in the country: i.e. to the rural inhabitants.

7.05 Some of the Settlement justifications of the policy (as will be described in Chapter Eight) hope that the policy will help in avoiding overconcentration of economic development in urban areas. Through providing for work-to-worker conditions, the policy is deemed promising to help rural areas in retaining their population and in resuming their participation in the GNP.

7.06 Having briefly highlighted some of the social justifications of applying the proposed hierarchy of growth and development service centres in Saudi Arabia (more social justifications could be extracted from the settlement justifications of the policy, in Chapter Eight), the next section will examine the first of the social issues that were filtered in Chapter Three for deliberate study: availability of Saudi manpower that the centres - as primarily industrial - would require in order to establish, function and keep functioning. Some subjectivity will surround consideration of this issue, mainly because there are no explicitly pre-determined targets or estimations of the number of jobs that could be created by the policy. Nevertheless, this study will

participate effectively in illuminating some of the potential constraints to and implications of the policy.

AVAILABILITY OF SAUDI MANPOWER

OVERVIEW

7.07 Generally speaking, technological advancements came to provide radical solutions for shortage of labour force in some countries. Due to associated higher productivity and, probably, less comparative cost per unit of production, industries tended to be more biased towards capital intensive ventures even in countries that have an abundance of labour. A case in point is the Indian Capital Intensive Industrial Estates that created only limited numbers of jobs. (refer to Chapter Two). Nevertheless, technology could minimise the need for labourers but could not substitute for them completely. A question that can be stated for our purpose is: Is there enough Saudi manpower to occupy the jobs that would be provided in the proposed high number of centres as an intended future industrialisation programme?

Table One: Change in Number of Civilian Employees in Saudi Arabia.

Nationality	1975*		1980*		1985**		1990** (projected)	
	No. (000)	%	No. (000)	%	No. (000)	%	No. (000)	%
Saudi	1,253	72	1,411	57	1,786	40	2,160.7	51
Non-Saudi	494	28	1,060	43	2,660	60	2,059.8	49
Totals	1,747	100	2,471	100	4,446	100	4,220.5	100

Source: * MOP, 3rd Plan, 1980-85, p. 35
** MOP, 4th Plan, 1985-90, p. 84

7.08 To examine matters related to the above question, several tables will be provided. Among them, Table One shows clearly that the number of civilian (i.e. non-military) employees in Saudi

Arabia rose from 1,747 thousand in 1975 to 2,471 thousand in 1980 (i.e. an increase of 424 thousand, or 24%, over the period 1975-80), and to 4,446 thousand in 1985 (i.e. an increase of 1,975 thousand, or 80%, over the period 1980-85). This change is projected by the Fourth Plan (1985-90) to drop to 4,220.5 thousand by the year 1990 (i.e. a decrease of 225.5 thousand, or 5%, over the period 1985-90). In other words, if we considered the total of employees in 1975 as a base figure with an index number of 100, the index numbers of total employees in 1980, in 1985 and in 1990 (projected) would respectively be equivalent to 141, 254 and 242 (calculated from Table One). This indeed demonstrates the dramatic leap-frog increases in total employees in Saudi Arabia between 1975 and 1985.

7.09 Who are these employees? Are they all Saudis? In the light of two factors: first, shortage of Saudi manpower; and second, shortage of skilled Saudi manpower in particular, Saudi Arabia opened the doors wide for non-Saudi expatriates, skilled and semi-skilled labourers to take up those spontaneously provided jobs. Simultaneously, the non-Saudi employees continued to increase dramatically, in both percentage shares and absolute terms, over the period 1975-1985 (see Table One). However, the Fourth Plan (1985-1990) projects a decrease in non-Saudi employees and an increase in Saudi employees over the period 1985-1990. Justifications for these projections will be elaborated upon shortly. It is worthwhile noticing at this point the dramatic increases in the number of non-Saudi employees in response to the rapid developments witnessed in Saudi Arabia over the period 1975-1985.

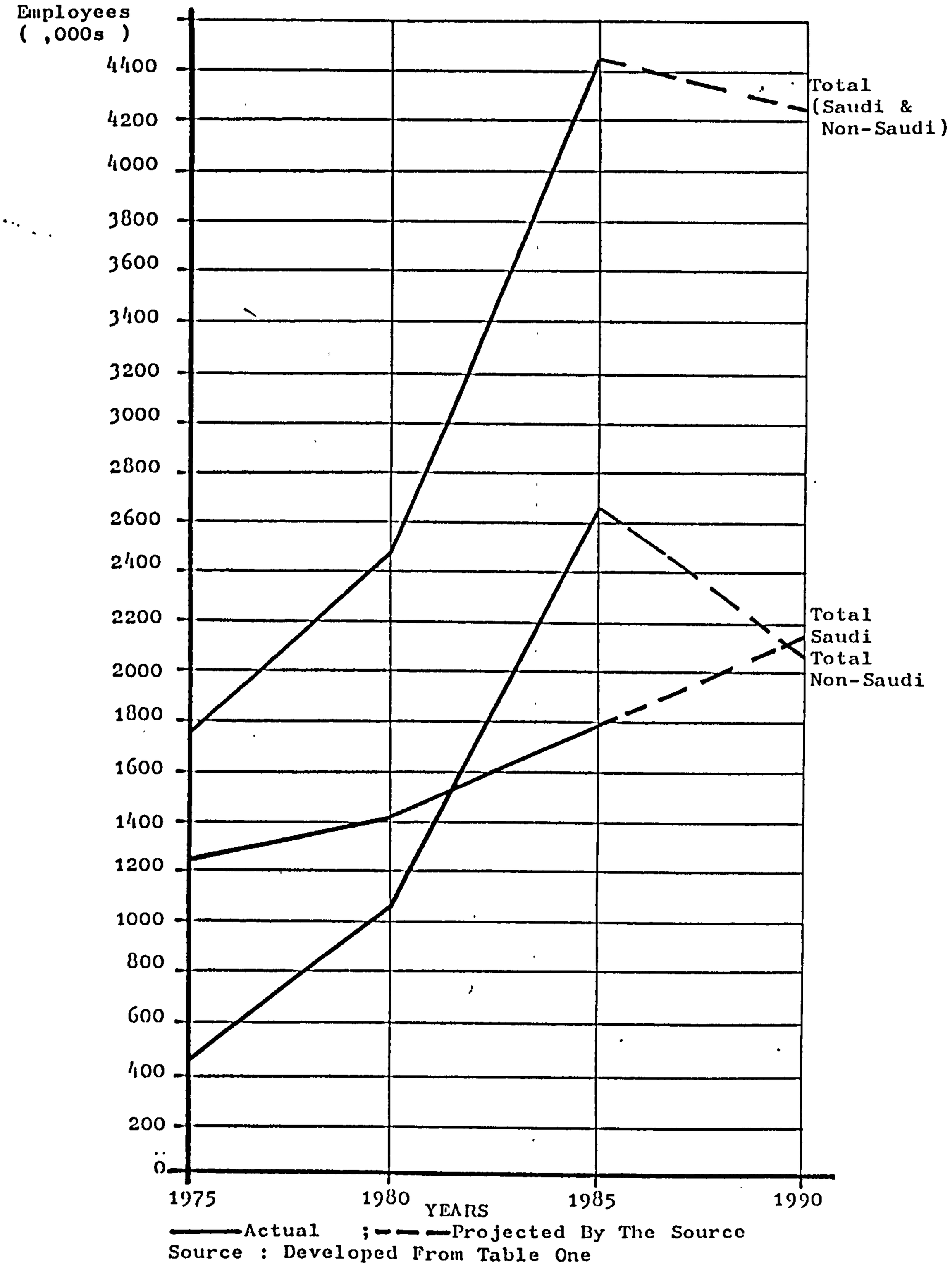
7.10 Although the Saudi Government provided various educational

and training programmes (e.g. vocational centres) to enhance their skills, the dramatic increase in Saudi civilian employees could only fill 40% of the total number of employments provided in the country up to 1985, with the remaining 60% being occupied by non-Saudis (refer to Table One). Figure One uses the data in Table One to illustrate the simultaneous changes in both totals of Saudi and non-Saudi employees in Saudi Arabia over the periods 1975-1985 (actual) and 1985-1990 (predicted by the Fourth Plan).

7.11 What share has each Saudi economic activity had of those employees? Table Two provides a focus for this issue. In aggregate terms, the producing sectors (see Table Two) have had tremendous comparative sectoral shares in the total Saudi civilian employments over the period 1975-1985, although of decreasing natures. Their aggregate share in the total Saudi civilian employment figures is projected by the Fourth Plan (1985-1990) to slightly decrease from 48% in 1985 to 47.4% in 1990 (see Table Two). This slight decrease could be attributed to the projected decreased role of the construction sector as the previously largest employer in the face of the increased role of the social services sector. Nevertheless, agriculture and manufacturing are the two producing sectors that are projected to employ more, possibly due to the government commitment to them in the context of attempts made to diversify the Saudi economy.

7.12 A point worthy of notice is that, although oil and its related industries form almost all the Saudi exports and the prime Saudi revenues' earner (refer to Chapter Six) they have a negligible share in national civilian employment. In numerical terms, they provided respectively 1.6%, 1.5% and 1.5% of the civilian employment in the nation in 1975, 1980 and 1985 (see Table

Figure One : Change In Number Of Civilian Employees In Saudi Arabia , Over The Period 1975-1990



———Actual ; — — —Projected By The Source

Source : Developed From Table One

Table Two: Civilian Employments Provided By Various Saudi Economic Activities Over The Period 1975-1990

Economic Activity	1975* ,000	%	1980* ,000	%
(1) Producing/ Sectors	988.6	56.6	1,107.9	44.8
- Agriculture	695.0	39.8	598.8	24.2
- Mining	3.4	0.2	7.3	0.3
- Oil Refining	27.4	1.6	36.0	1.5
- Non-oil/ Manufacturing	74.4	4.2	104.2	4.2
- Utilities	16.1	0.9	31.5	1.3
- Construction	172.3	9.9	330.1	13.3
(2) Service/ Sectors	511.2	29.3	1,042.3	42.2
- Trade	153.6	8.8	310.6	12.6
- Transport	114.5	6.5	214.6	8.7
- Finance	13.1	0.8	34.8	1.4
- Social/ Services	230.0	13.2	482.3	19.5
(3) Government***	246.7	14.1	321.0	13.0
Total (1 + 2 + 3)	1,746.5	100.0	2,471.2	100.0
	1985**		1990 (predicted)**	
(1) Producing/ Sectors	2,132.3	48.0	2,000.7	47.4
- Agriculture	617.4	13.9	663.0	15.7
- Mining	5.1	0.1	5.2	0.1
- Oil Refining	65.1	1.5	73.0	1.7
- Non-oil/ Manufacturing	411.4	9.3	531.2	12.6
- Utilities	147.4	3.3	147.4	3.5
- Construction	885.9	19.9	580.9	13.8
(2) Service/ Sectors	1,844.6	41.5	1,773.5	42.0
- Trade	556.1	12.5	493.0	11.7
- Transport	303.4	6.8	310.7	7.4
- Finance	136.3	3.1	140.7	3.3
- Social/ Services	124.3	19.1	829.1	19.6
(3) Government***	469.1	10.6	446.3	10.6
Total (1 + 2 + 3)	4,446.0	100.0	4,220.5	100

Source: * MOP, 3rd Plan, 1980-85, p. 37
** MOP, 4th Plan, 1985-90, p. 86
*** = Civilian (i.e. non-military) employments

Two). Their aggregate share in the total of Saudi civilian employment is projected by the Fourth Plan (1985-1990) to be 1.6%

in 1990. However, in light of the current shortage in Saudi skilled labourers, having oil industries of a capital intensive nature could be a temporary advantage.

7.13 Table Two demonstrates the tremendous and consecutive increases in the total of employments provided by the Saudi service sectors over the period 1975-1985. This indeed reflects the sectoral shifts of employment from some primary sectors (e.g. agriculture) to service (or tertiary) sectors over the above-mentioned period. As was demonstrated in Chapter Six, shifts of employment and economy from primary to secondary and then to tertiary sectors were experienced in Europe. However, it seems that oil revenues made it possible for Saudi Arabia to experience direct sectoral shifts from the primary to the tertiary sectors.

7.14 The share of Government civilian employments decreased consecutively over the period 1975-1985 in Saudi Arabia, although increasing in absolute terms(see Table Two). This reflects the willingness of the Saudi Government to increase the role of the private sector in terms of employment provision and to seize physically, but with a continuous vital role in terms of fostering them with loans, incentives and other aids. This is highlighted by the simultaneous increases in the role of individual non-oil manufacturing industries and agriculture over the periods 1980-1985 (actual) and 1985-1990 (predicted or intended), as will be elaborated upon shortly.

7.15 Figure Two uses some of the data provided in Table Two to illustrate diagrammatically the total employments provided by the three groups of sectors (i.e. the producing; the services; and the governmental) over the periods 1975-1985 (actual and 1985-1990 (projected by the Fourth Plan). This figure shows clearly how the

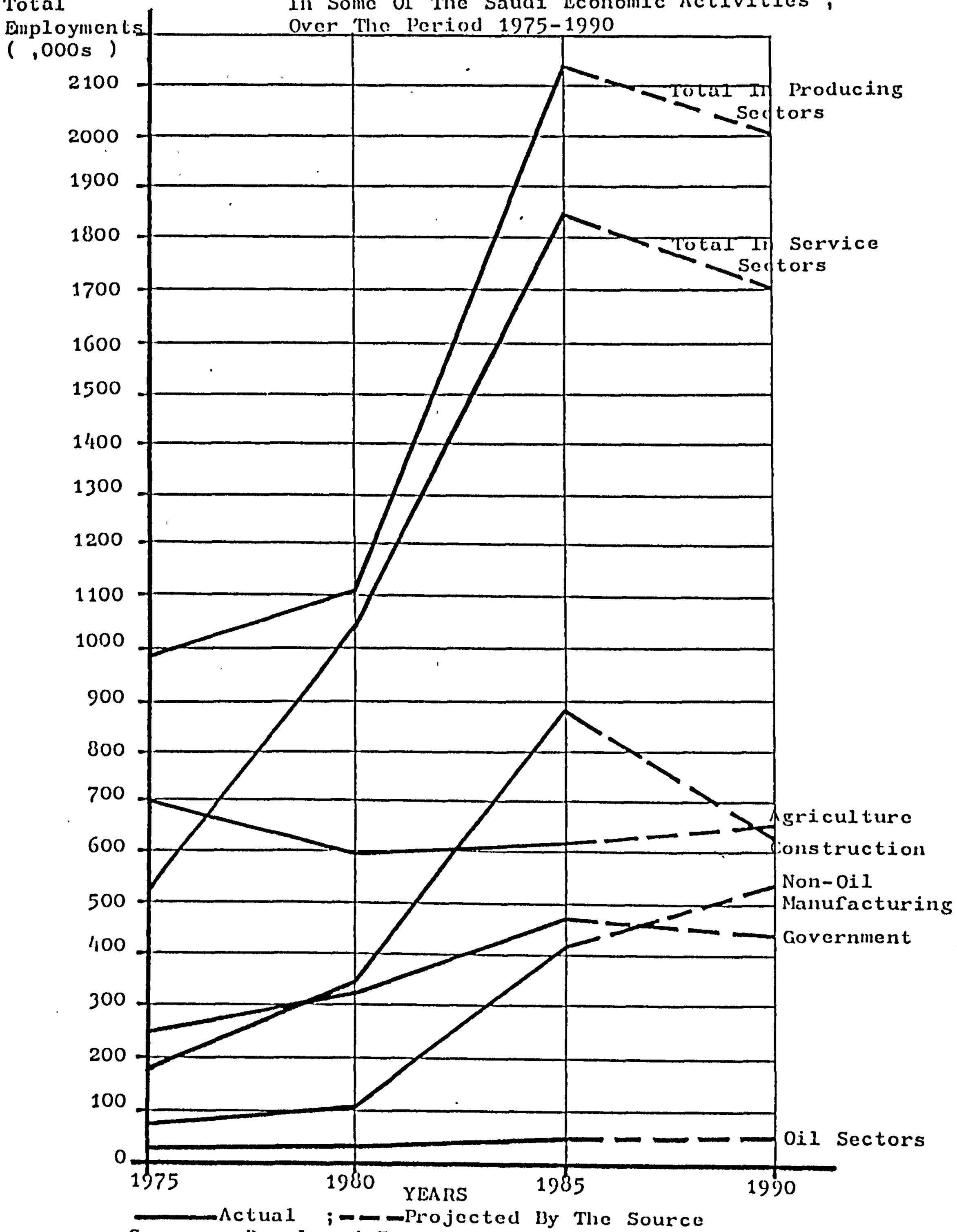
total of employments provided by each of these three groups of sectors increased over the period 1975-1980, but increased even more dramatically over the period 1980-1985. The figure shows also the decrease in total employment provided by agriculture – one of the producing sectors – in the face of simultaneous increases in employments provided by other sectors like construction, non-oil manufacturing and all the service sectors over the period 1975-1980. This could be attributed to the massive migrations from the agricultural (rural) areas at that time to the developing constructional and service markets in urban areas. However, the agricultural and non-oil manufacturing sectors, as indicated above, are projected (or intended) to grow in real and in employment terms over the period 1985-1990, despite the projected (or intended) overall cuts in total Saudi employments (see Figure Two). This, as argued previously, should reflect the attention given to these particular sectors in order to achieve a diversified Saudi economy: a long-term goal of the Saudi government.

7.16 Which occupation groups (i.e. professions) will be subject to more employment cuts in Saudi Arabia over the period 1985-1990? To illustrate matters related to this question, Table Three is provided. Setting aside discussions on the precise meanings of the terminologies used for professions or employments in Table Three, the employments available to unskilled workers are projected to show a comparatively dramatic decrease in both share and absolute terms over the period 1985-1990 (i.e. cuts of 13.9% – see Table Three). However, the Table demonstrates clearly that all employments available would see an overall cut of 5.1% over the period 1985-1990. It is worthwhile stressing that these predictions are made by the Fourth Development Plan (1985-1990) in

light of two factors: first, the depreciating oil revenues; and second, the Saudi long-term goal of Saudiisation (i.e. having all jobs occupied by Saudis). Therefore, these should not be treated only as independent predictions, but more correctly as intended aims of the Plan over the period in concern. However, the question that lends itself to discussion here is: How would such cuts occur? In other words, who would be subject to these cuts?

7.17 With reference to the above question, and as explained previously, Saudi Arabia opened the doors wide for non-Saudi labourers to fill employment gaps where Saudi manpower was either in short supply or lacking in immediate necessary skills that would enable them to fill those gaps (or both). It is a Saudi policy that as the Saudi labour force increases in numbers and improves in quality, they can gradually be given priority in occupying employments, even if such employments were occupied by similarly skilled non-Saudi labourers. This is the policy termed above as the 'Saudiisation'. It has probably been built on two grounds: first, as a right Saudis should be employed as they acquire the necessary skills and as long as employments are vacant or temporarily occupied by similarly skilled non-Saudi labourers; and second, through an increasing share of Saudis in the overall number of employees in the country, incomes could be better orientated towards stimulating spatio-economic developments within the country rather than in foreign countries from where non-Saudi labourers came and to where they probably send some of their savings. In other words, the money multiplier effects would probably tend to take place within the country as money earners (i.e. employees) became Saudis.

Figure Two : Behaviour Of The Total Civilian Employments In Some Of The Saudi Economic Activities , Over The Period 1975-1990



———Actual ;– – –Projected By The Source

Source : Developed From Table Two

Table Three: Saudi Civilian Employment By Occupation Groups Over The Period 1985-1990

Occupation Groups	A (,000)	A %	B (,000)	B %	C %
Professional and/ Managerial Workers	563.9	12.7	558.6	13.2	-0.9
Office Workers	1,020.1	23.0	1,001.6	23.7	-1.8
Manual Skilled and/ Semi-Skilled Workers	1,451.8	32.6	1,445.5	34.3	-0.4
Unskilled Workers	1,410.1	31.7	1,214.8	28.8	-13.9
Totals	4,446.0	100.0	4,220.5	100.0	-5.1

'A' Employments in 1985 (actual)
'B' Employments in 1990 (predicted)
'C' Employment change over the period 1985-1990

Source: MOP, 4th Plan, 1985-1990, p. 89 (A & B), 'C' is calculated by the researcher.

7.18 The intended cuts in employment in Saudi Arabia over the period 1985-1990 would be applied mainly through repatriating a total of 600.2 thousand of the non-Saudi employees. Conversely, employments available to Saudis would be increased, particularly for the professional and skilled occupational groups (see Table Four). However, the predicted (or intended) sharp cuts in overall employment could be more accurately viewed in the context of the impacts of the depreciating oil markets: causal links between revenues, expenditures and national policies in Saudi Arabia have already been demonstrated in Chapter Six. Nevertheless, employment available to Saudis would remain plentiful, not only up to 1990 but probably for another two decades or so: as argued previously, Table One demonstrated that, by the year 1990, there would be still 49% of the total of civilian employments in Saudi Arabia occupied by non-Saudis.

Table Four: Civilian Employment By Nationality in Saudi Arabia - (1985-1990)

Nationality/ Sex	Civilian Employment 1985 actual (,000)	1990 predicted (,000)	Net Change (,000)
Saudi Males	1,649.2	1,984.1	+334.9
Saudi Females	136.9	176.6	+ 39.8
Sub-total: Saudis	1,786.0	2,160.7	+374.7
Sub-total: non-Saudis	2,660.0	2,059.8	-600.2
Total	4,446.0	4,220.5	-225.5

Source: MOP, 4th Plan, 1985-1990, p. 84

Table Five: Projected Additional Manpower Requirements by Occupation, Repatriation of Non-Saudis, and New Saudi Entrants to Labourforce Over the Period 1985-1990

Projected total job openings		Repatriation of non-Saudi workers		Saudi new entrants to labour force
Occupation/ Groups Total	(000)	(000)	*	(000)
Professional/ and Managerial Workers	4.3	50.5	1.9%	54.8
Manual (Skilled and Semi-Skilled) and Office Workers	32.8	235.1	8.8%	267.9
Unskilled Workers	-143.1	314.6	11.8%	171.5
Total	-106.0	600.2	22.5%	494.2

* As percentages from the 2,660.0 thousand non-Saudi Workers in Saudi Arabia in 1985 (see Table Four)

Source: MOP, 4th Plan, 1985-1990, p. 91

7.19 But will the repatriation of non-Saudi labourers be selective, so that the impact on the Saudi economic activities will be negligible? Furthermore, would there be enough Saudi labourers to replace immediately the possibly still needed, but repatriated, non-Saudis? Of the 600,200 non-Saudi employees (= 23% of the 2,660 thousand non-Saudi employees - see Table Four) who would be repatriated over the period 1985-1990, 52% would be unskilled workers, 39% would be office and manual workers - probably due to the stagnating constructional markets - while the remaining 9% would be professionals and managerial workers (see Table Five). This reveals two things: first, as argued above, most of the non-Saudis who would be repatriated would be those occupying unskilled employment; and second, the fewest repatriations would occur among the non-Saudi professionals and managerial workers since they would need to be replaced immediately by qualified Saudis, who would

possibly not be immediately available, in order for the negative impact on relevant economic activities to be kept under control.

7.20 According to the 4th Plan's projections, new Saudi entrants to the labour force would be 494.2 thousand over the period 1985-1990. On the other hand, a total loss of 106 thousand jobs would be witnessed over the whole country, over the same period (see Table Five). However, through repatriating 600.2 thousand non-Saudi workers, all the 494.2 thousand new Saudi entrants to the labour force could just be employed satisfactorily (i.e. 600,200 repatriated - 106,000 lost jobs = 494.2 thousand jobs = the same number of predicted new Saudi entrants to the labour force). Two vital points regarding this can be raised: first, the plan implicitly assumed without substantial evidence that all the current Saudi labour force are employed, even those in backward regions and, therefore, focussed attention on the new entrants to the labour force; and second, having the projected repatriations of non-Saudi workers providing an exactly equivalent number of employments to the projected numbers of Saudi new entrants in the labour force should support the previously argued statement: that is, those cuts are aimed-for by the plan rather than merely projected.

7.21 *To conclude, it is important to notice that the Saudi workforce was occupying only 40% of total employment provided over the whole country in 1985, while the remaining 60% were occupied by non-Saudis. Despite the sharp cuts, non-Saudis would be representing 49% of the total civilian employees in the country in 1990. It is expected, therefore, that Saudis would continue to find enough employment chances, and reliance on non-Saudi workers might remain inevitable, although probably decreasing, for*

something like 10-15 years ahead. However, applying the proposed policy of growth and development service centres with their implied industrialisation programmes might require more non-Saudi employees. This would contradict all the above justifications (Saudilisation, deteriorating oil revenues) of cutting overall employment in Saudi Arabia, through repatriating some of the non-Saudi workers. In the following section, a closer look will be given to availability and attitudes of the Saudi workforce in Al-Baha: one of the backward regions for which help the policy of growth centres is primarily proposed.

MANPOWER IN THE AL-BAHA REGION

7.22 The only comprehensive socio-economic census in Saudi Arabia was carried out by the Ministry of Finance and National Economy (Department of Statistics) in 1974. In context of their regional studies, Finnplanco carried out a socio-economic survey for a sample of 5% of the overall inhabitants in the Al-Baha region in 1982. Setting aside differences in sample size between these two socio-economic studies, the two sets of data provided by these two studies can be utilised here in illustrating the changes in the main features of the Al-Baha population's age-sex structures over the period 1974-1982. Needless to say, it is assumed that the techniques followed by those two studies are scientifically correct. This assumption is inevitable in light of the absence of any other source of census that could broaden the range of evaluations and selections.

7.23 Table Six provides for constructing a numerical comparative view of the Al-Baha population's age-sex structures in 1974 and 1982. To help in comparing these two structures, Figure Three uses

Table Six: The Al-Baha Population's Age-Sex Structures in 1974 and 1982: Comparative views

Age Groups (year)	Population in 1974* Males	Females	Population in 1982** Male	Female
0-4	17,682	17,795	20,140	22,160
5-9	16,902	17,308	23,040	23,340
10-14	12,339	12,385	21,220	18,780
15-19	7,003	7,202	17,360	13,680
20-24	3,481	5,224	10,040	8,920
25-29	3,405	5,475	6,960	7,260
30-34	3,288	5,145	5,000	5,620
35-39	3,330	4,636	4,360	6,460
40-44	3,201	4,755	4,380	5,940
45-49	2,659	3,132	3,820	4,620
50-54	2,579	3,737	4,040	4,760
55-59	2,134	1,774	2,560	2,040
60-64	3,488	3,414	4,680	2,540
65 +	6,135	6,243	6,780	4,280
Total by Sex	87,626	98,225	134,380	130,400
Grand Totals	185,851		264,780	

Source: * Comprehensive National Census, Ministry of Finance and National Economy, 1974 in Finnplanco 1986, p. 23 (see below).

** Finnplanco, the 1982 Socio-Economic Survey for Al-Baha, Report No. 2 and 3, p. 23 (the Arabic version).

the data in Table Six to provide two superimposed age-sex pyramids for the Al-Baha population in 1974 and 1982. The Table and the Figure demonstrate the massive out-migration of male active population that Al-Baha witnessed in 1974. As argued in Chapter Four, females do not work side by side with males in Saudi Arabia due to Islamic principles and restrictions. Accordingly, only the male active population was leaving Al-Baha for urban areas where jobs could be found much more easily. The year 1974 was covered by the First Development Plan (1970-1975) that tended to concentrate activities in urban areas so that rural Saudis could be attracted in order to temporarily minimise the problem of the tremendous shortage in the labour force at that time. Figure Three illustrates the consecutive sharp losses in the Al-Baha male population and, due to the reasons provided above, the simultaneous

abundance of labour-force-aged female population in 1974.

7.24 Figure three shows diagramatically that some sort of balance has been achieved between the Al-Baha male and female population over the period 1974-1982. This balance implies a noticeable return of the active male population to Al-Baha, previously missed. This could correctly be attributed to two factors: first, the Second Development Plan (1975-1980) put great emphasis on providing services in the backward rural areas and that should have minimised the rural push factors of immigration; and second, most importantly, different ministries established offices in various parts of the country. This provided some jobs that led some of the labour force who previously out-migrated to re-migrate to the region (i.e. an experience of reverse migration). The 1981-82 peaks in oil production and revenues made it possible to embark on providing more schools, hospitals and other governmental institutions over the whole country including rural areas. Accordingly, not only Al-Baha but the other backward regions should have experienced some sort of reverse migration , although possibly of various degrees.

7.25 The age-sex pyramid drawn for the study village within Al-Baha (Figure Nine in Chapter Four) shows that shares in total labour-force-aged population was still significantly in favour of females in the region in 1988, assuming representativeness of the conditions in the study village. On the contrary, Figure Three shows a balance between the Al-Baha male and female labour force-aged population in 1982. This contradicton should have one of two interpretations: first, either the Finnplanco's statistics are biased from reality due to a heavy reliance on a sample size of only 5% of total population; second, or the village studied does

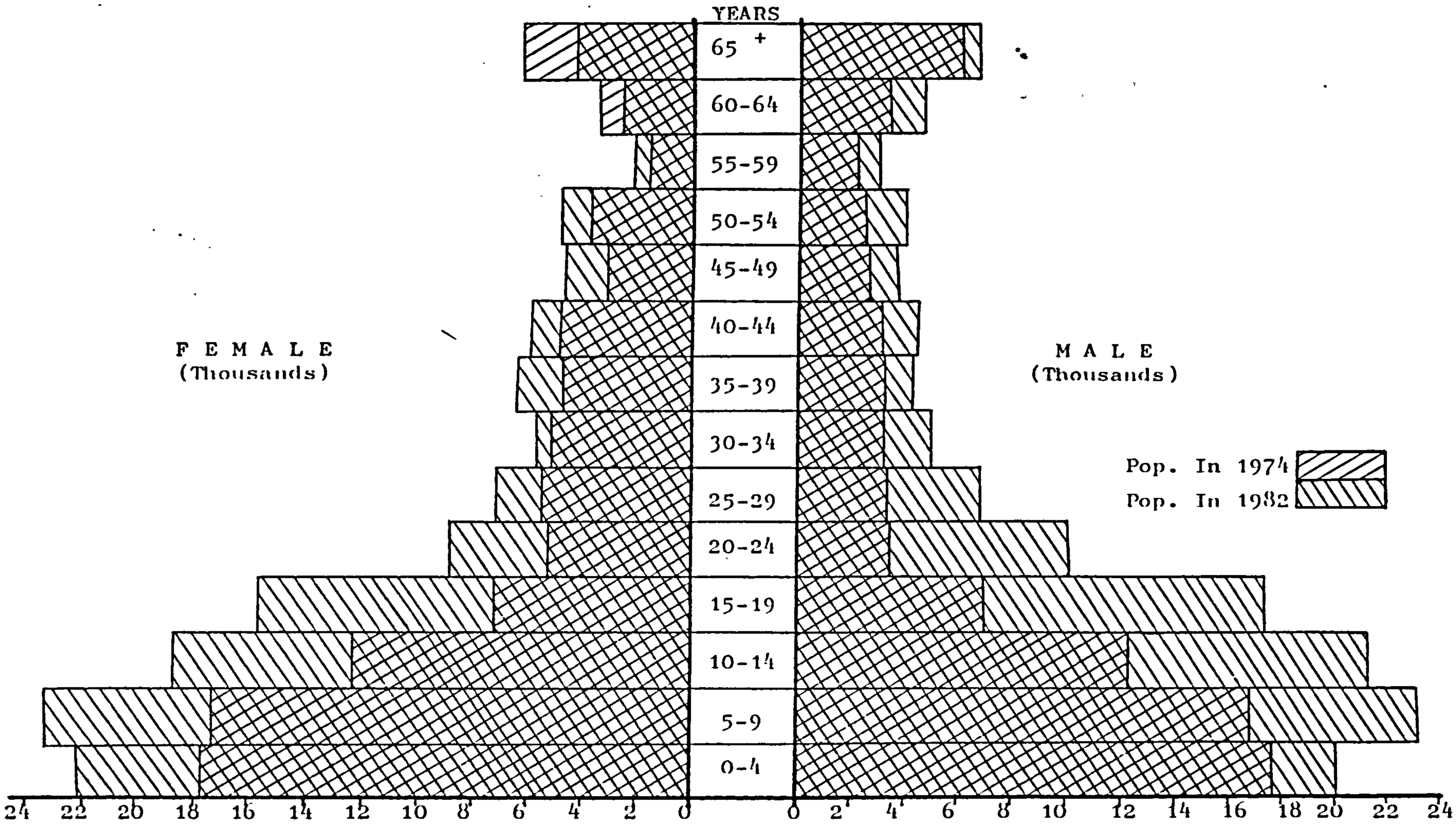
not correctly represent the whole region in terms of this particular issue. However, the researcher agrees that some sort of reverse migration has occured but a complete balance between Al-Baha male and female labour force-aged population is probably still far from reality.

7.26 Table Seven is provided to aggregate the data in Table Six so that the size of the Al-Baha workforce and dependant population in 1974 can be compared with those in 1982. Working-age in Saudi Arabia is from 15 years to 59 years, above which a public sector's employee should retire. Accordingly, the dependant population in Saudi Arabia are those aged under 14 years and over 60 years (i.e. all those outside working age). Therefore, dependancy ratio among the Al-Baha population can be calculated through applying the following formula:

Dependency Ratio = (population aged under 14 years +
population aged over 60 Years) ÷
(population aged between 15 and 60 years)

Applying this formula to the data in Table Seven provides the argument that the dependancy ratio among the Al-Baha population decreased from 1.6 in 1974 to 1.2 in 1982 (these figures have not taken into account the work force-aged disabled population). Despite improvements in health conditions (= noticeable decrease in death rates + expansion in life expectancy = increase in number of dependant population), the dramatic increase in the Al-Baha labour force could be behind the sharp decline in the above calculated dependancy ratios over the period 1974-1982. The return of some of the labour force previously missed over the same period should also cause the Al-Baha work force-aged population to proportionally increase in the face of the region's dependancy-aged population.

Figure Three : Age-Sex Structure Of The Al-Baha Region's Population In 1974 & 1982



Source : Developed From Table Six

Table Seven: The Al-Baha Dependancy and Workforce aged population in 1974 and in 1982; Comparative Data

Aggregated Age Groups (years)	1974		1982	
	Male	Female	Male	Female
Under 14	46,923	47,488	64,400	64,280
14-59	31,080	41,080	58,520	59,300
Over 60	9,623	9,657	11,469	6,820
Totals	87,626	98,225	134,380	130,400
Grand Total	185,851		264,780	

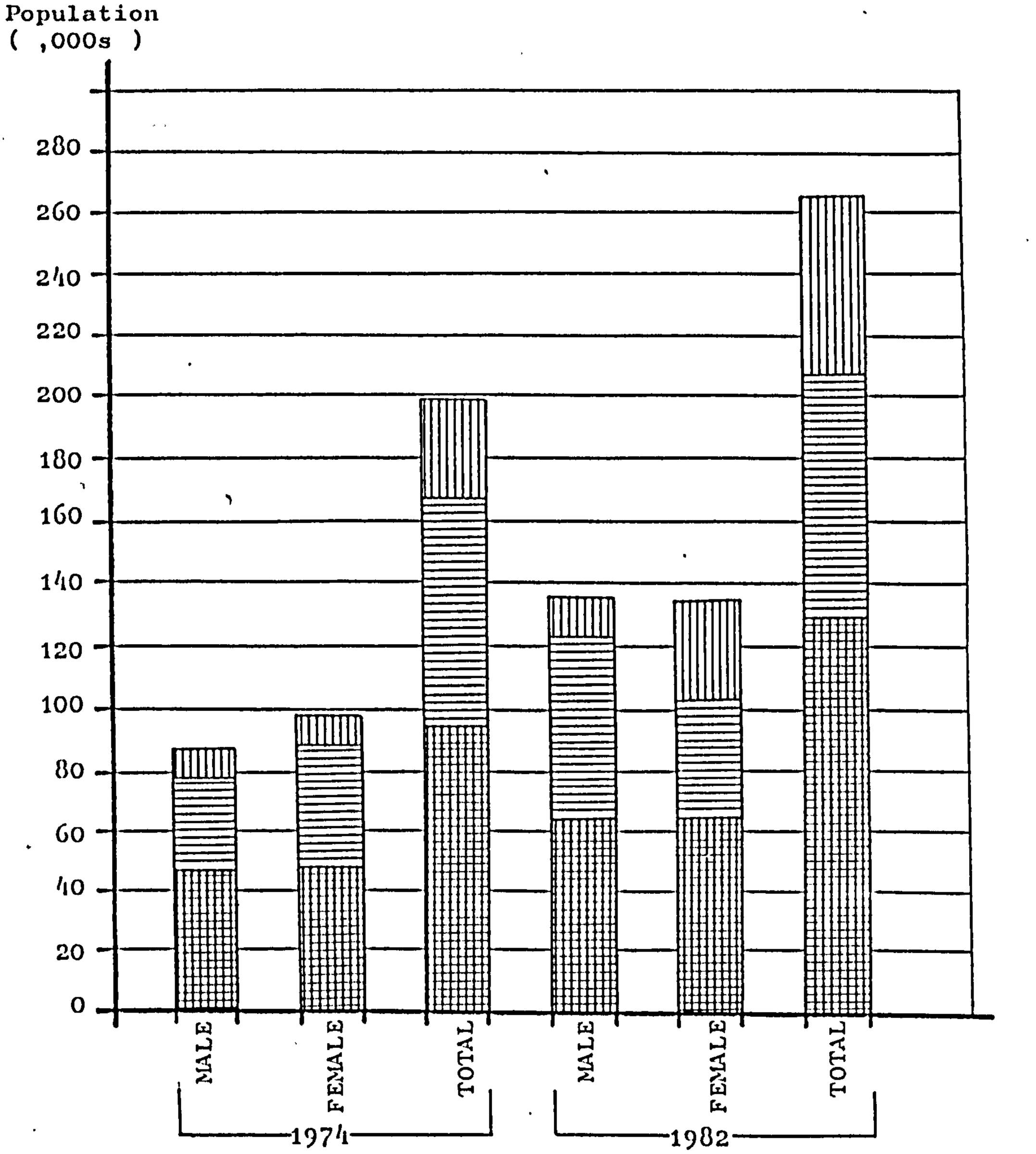
Source: Aggregated from Table Six.

7.27 Figure Four develops the data in Table Seven to show how both of the Al-Baha workforce and dependancy-aged populations increased over the period 1974-1982. For our purposes, three questions can be considered for further speculation: first, How many of the Al-Baha workforce and dependancy-aged population are Saudis?; second: Are the work force-aged population all employed? and third: In which activities do the Al-Baha population mostly work? Answering these questions should help in examining the availability and interests of the Al-Baha workforce population, who could answer the probable manpower requirements of the proposed growth and development service centres in the region as a case study. The next few sub-sections will deal with matters related to these questions.

THE AL-BAHA SAUDI AND NON-SAUDI POPULATION

7.28 Table Eight highlights the nationality structure of the Al-Baha dependent and workforce-aged population in 1982. At a later stage, correspondant data traced back to 1974 will be comparitively viewed. Although it is not exhaustive enough to disaggregate the Al-Baha non-Saudis into various nationalities, Table Eight sheds light on the region's Saudi workforce and dependent population's age-sex structure in comparison with that of the non-Saudi

Figure Four : Population In Workforce And In Dependancy Ages In Al-Baha , In 1974 & 1982



Source : Developed From Table Seven

population in 1982. This is extremely important for the purpose of this sub-section.

Table Eight: Age-Sex Nationality Structure of the Al-Baha Population in 1982.

Nationality	Under 14 years old		15 to 59 years	
	Male	Female	Male	Female
Saudis*	63,160	63,100	56,920	57,920
Non-Saudis**	1,240	1,180	1,600	1,380
Totals***	64,400	64,280	58,520	59,300
Grand Totals	128,680		117,820	

Nationality	Over 60 Years		Totals
	Male	Female	
Saudis*	11,380	6,760	259,240
Non-Saudis**	80	60	5,540
Totals***	11,460	6,820	264,780
	18,280		264,780

Source: * Calculated by the researcher
** Finnplanco, 1985, Report 2 +3 (Arabic version), p. 25
*** Finnplanco (as above), p. 24

7.29 Of the Al-Baha total population in 1982, only 2% (or 5,540 persons) were non-Saudi while the remaining 98% (or 259,240 persons) were Saudis. Of those non-Saudis, 54% (or 1,600 males + 1,380 females = 2,980) were in the labour force age-group (see Table Eight). Of the 259,240 Saudis in Al-Baha at that time, 44% (or 114,840 persons) were in the labour force age-group. In aggregate terms, the Al-Baha labour force-aged population was equivalent to 117,820 persons in 1982 (i.e. 45% of the Al-Baha total population), of which 97% were Saudis. Al-Baha (and probably other backward regions) had much lower comparative shares of non-Saudis in the labour force than that which the overall national picture reveals. This could be attributed to the early 1980s backwardness of the region, during which not enough jobs were comparatively available in the region to the extent that would have allowed it to attract more non-Saudi workers.

7.30 Having illustrated the size of the Al-Baha Saudi labour force population in 1982, the second question stated above can be recalled. That is: How many of those in the labour force-aged population were actually employed? Prior to highlighting matters related to this question, it is important to clarify that a person is considered to be of labour force-age if he is between 15 and 59 years old and willing and able to work. Accordingly, it is not necessary that all of the labour force-aged population are actual labour force. Disabled labour force-aged population can be correctly added to the dependent population. However, due to the nature of the available data, it is assumed that the actual Al-Baha labour force population was equivalent to all the regions' labour force-aged population in 1982 (i.e. assumption: the disabled population was negligible in number). In light of this assumption, the next sub-section will deal with aspects related to the above question.

The Employed Labour Force in Al-Baha.

7.31 A total of 41,580 persons was employed in Al-Baha in 1982: the activities in which they were working will be described at a later stage. That was equivalent to 16% of the 264,780 inhabitants in the region at that date (see Table Nine), and to 35% of the Al-Baha 117,820 labour force-aged population (see Table Eight). Of those total employees, 98% (or 41,260 persons) were males, while only 2% (or 320 persons) were females (see Table Nine). This underlines the fact that females had not enough segregated employment in light of religious orders that prohibit women from working alongside men. Owing to this, the availability of the workforce that could answer the manpower requirements of the

proposed high number of growth and development service centres, should be judged in light of the numbers and interests of the male labour force population in Al-Baha and in the rest of the country.

Table Nine: Al-Baha Employed Population in 1982

Nationality	Employees*			Workforce** Aged	Total Population
	Male	Female	Total		
Saudi	40,260	40	40,300	114,840	259,240
Non-Saudi	1,000	280	1,280	2,980	5,540
Totals	41,260	320	41,580	117,820	264,780

Source: * Finnplanco, 1986, Report 2 + 3 (Arabic Version), p. 103.
** Developed from Table Eight.

7.32 As shown in Tables Eight and Nine, the Saudi employed male population formed 67% (or 40,260 persons)of the Al-Baha male-workforce aged population in 1982. Referring to the Ministry of Education's (1983) Reports tells that almost all the currently unemployed population in Al-Baha were students in preparatory and secondary schools and in the Al-Baha vocational centre. In this regard, two points can be underlined: first, the Al-Baha Saudi population - probably just like other Saudis throughout the country - were almost satisfactorily employed and, second, Al-Baha Saudi labour force (excluding students) were just enough to occupy the presently existing public and private sector employment in the region - relaxing the 2% of employment occupied by non-Saudis. However, assuming that conditions have not changed significantly from those in 1982, the Al-Baha Saudi labour force would not be extensive enough to answer the immediate manpower requirements of the proposed centres. If we considered the fact that the centres would mostly require skilled people, the problem would be more intensified. Adding the problems associated with peoples' interests and social conservatism against industrialisation, the

problem could be even more acute. However, it is worth illustrating the share of different activities of the Al-Baha employees overall in 1974 and in 1982, in order to indirectly explore both the activities' shares in total employment and the labour force's activity interests in the region. The next sub-section will deal with this theme.

Al-Baha Employees Assigned to Activities

7.33 Table Ten shows vividly the dramatic increase in the Al-Baha total of employees over the period 1974-1982. This should genuinely be viewed in the context of the attentions of the early 1980s given by the government to Al-Baha, as well as to the other backward regions, in order to minimise regional disparities in Saudi Arabia. Simultaneously, the table demonstrates the sharp declines witnessed in the number of agricultural employees, and this should reflect the sectoral shifts of employments witnessed from primary sectors (e.g. agriculture) to secondary (e.g. construction) and to tertiary (e.g. services) sectors in Al-Baha over the period 1974-1982: for more information, reference can be made to Figure Two, Chapter Seven.

Table Ten: The Al-Baha Employees Assigned to Activities in 1974 and in 1982.

Activity	1974*		1982**	
	No. of Employees	%	No. of Employees	%
Agriculture	21,366	66	12,180	29
Manufacturing	694	2	2,620	6
Construction	1,944	6	6,790	16
Others***	8,202	26	19,990	48
Totals	32,206	100	41,580	100

*** Others stands for emloyees in Trade, in Transportation and in Government (almost 80% of them in Government).

Source: * Finnplanco, 1986, Report 2 + 3 (Arabic Version), p. 88.
** The above reference , p. 90

7.34 Regarding the data in Table Ten, an important point to notice is the comparatively limited share that the manufacturing industries had in the total of employees occupying jobs that were provided in various economic activities in Al-Baha , both in 1974 and in 1982. In numerical terms, only 6% (or 2,620 persons) of the total 41,580 employees were employed in the Al-Baha manufacturing industries in 1982 (see Table Ten). Of those manufacturing employees, non-Saudis should have represented a tremendous share. This can be revealed by the fact that only tiny proportions of the employments provided in the 8 factories and 149 workshops interviewed in Al-Baha are represented by Saudis (refer to Chapter Five). Furthermore, according to the survey, none of the 1,600 persons who graduated up to now from the Al-Baha vocational Training Centre has occupied any of the employments provided for workers and technicians in the above mentioned factories and workshops interviewed. Previously, the availability of more well paid and less demanding jobs was underlined as a possible factor of shifting Saudis away from the manufacturing industries: this could have been vital in regulating the employment preference of the above mentioned 1,600 skilled graduates of the Al-Baha Vocational Training Centre as well. Because the proposed policy of growth centres would rely heavily on manufacturing industries' programmes, it is important to research other, probably hidden, reasons for the limited participation of Saudis in Al-Baha manufacturiing industries (see Table Ten). Three of the 8 factories interviewed in Al-Baha attributed that to the existence of social conservatism against industrialisation: a similar problem to the one faced by the Spanish industrial poles, in their early stages. Is this the case? If so, is it likely to have any

negative impact on the proposed policy? Can it be eroded in the near future? The next section will explore these questions.

SOCIAL CONSERVATISM AGAINST INDUSTRIALISATION

7.35 Social conservatism against changes in various socio-economic matters tend to be more noticeable in countries which are witnessing leap-frog developments (e.g. in some oil exporting countries). Spontaneous changes in various living conditions sometimes take a period of time for people to adapt to. The spontaneous Spanish massive industrialisation that took place in the late 1960s faced an early challenge from social conservatism. However, people gradually accepted industrialisation as a fact of life in Spain and, consequently, engaged themselves in industrial jobs in later stages of the programme.

7.36 In order to clarify matters related to the above questions, relevant exploratory questions were asked of the 116 heads of households interviewed in Qezzanah - the study village within Al-Baha. Representativeness of the attitudes of these particular populations to the attitudes of the overall Al-Baha population towards various matters was assumed in Chapter Four, and is stressed here in relation to the issue of social conservatism against immediate involvement in industrialisation. It is believed that the educational levels of the inhabitants will influence their awareness and attitudes towards such matters. Because developments in all aspects of Saudi life have been so rapid in the past to 30-40 years, , most of the elderly population have had few chances to become educated. Therefore, awareness should, in principle, decrease as we move up the population pyramids particularly in rural areas. It seems, therefore, that

educatiuonal levels and age structures should have some role to play in the degree of social conservatism in Al-Baha. Extending from these, attitudes of the 116 persons interviewed will be assigned interchangeably to categories of age-groups and educational levels. This should help in viewing how social conservatism against immediate involvement in industrialisation could change, in correspondence to changes in education and throughout the generations. In order to do so, information about ages, educational levels and current occupations of the population interviewed will first be put forward.

INFORMATION ABOUT THE INTERVIEWED POPULATION

7.37 An age-sex pyramid was drawn in Chapter Four for all the Qezzanah – the study village within Al-Baha – population. Nevertheless, referring to that pyramid would not reveal ages nor educational levels of the 116 heads of households particularly interviewed in Qezzanah. As justified above, educational and age structures of those heads of households should first be highlighted. Furthermore, examining their occupations would be of great benefit to the particular purpose of this section.

7.38 Of the 116 heads of households interviewed in Qezzanah, 66 persons (or 57%) are illiterate, 20 persons (or 17%) are educated, 25 persons (or 22%) are fairly educated, while only 5 persons (or 4%) are highly educated (see Table Eleven for data and meaning of terminologies). Of the 66 illiterates in the study village, 50 (or 76%) are aged over 51 years, 15 (or 23%) are aged between 36 and 50 years while only one person is aged under 35 years. This reflects the recent history of educational development in the region that, just as everywhere else in the country, took place in consequence

of the oil exports and revenues. However, extrapolating the data in Table Eleven should tell that, in about 25-30 years from now, none of the Qezzanah population will be illiterate. This would be true if we knew that educational facilities are available for females as they are available for males in this and in the other villages in Al-Baha.

Table Eleven: Information About Educational Status of the 116 Heads of Households Interviewed in Qezzanah; The Study Village.

Age Groups (years)	Educational Status				Totals in age Groups
	Highly Educated	Fairly Educated	Educated	Illiterate	
Under 20	0	2	0	0	2
21-35	3	12	1	1	17
36-50	2	9	14	15	40
51+	0	2	5	50	57
Totals	5	25	20	66	116

Highly Educated = Holders of University Qualifications
Fairly Educated = Holders of Intermediate and Secondary School Qualifications
Educated = Holders of Elementary School Qualifications
Illiterate = Unable to Read or Write
Source: A questionnaire survey carried out by the researcher in April and May, 1988.

7.39 Having highlighted their educational levels, are those 116 persons interviewed employed? If yes, in which activities? Table Twelve sheds light on this theme. It shows that, 87 perons (or 75% of the total 116 persons) are employed, of which 32 (or 37%) are in private and 55 (or 63%) are in public sectors. Nine persons (or 8%of the 116 interviewed) are unemployed. A person is considerd unemployed if he is able and willing to work (i.e. in the labour force age-group and healthy enough to do a job) but could not find employment. Therefore, although 7 of those 9 unemployed persons are aged above 51 years, it should be implicitly understood that none of them is aged above 60 years: the age of retirement and

elderly dependence. This is because the above definition of unemployment was clear in the researcher's mind when carrying out the questionnaire survey, as well as when tabulating data. Owing to this definition as well, the 10 persons (or 9% of the 116 persons interviewed) who are unable to work – see Table Twelve – are all above 60 years old. The 8 pensioners are all working in large urban areas located outside the region, but returned to their home village after retirement.

Table Twelve: Occupations of the 116 Heads of Households Interviewed in Qezzanah; The Study Village.

Age Groups (years)	A	B	C	D	E	F	G
Under 20	2	0	0	0	0	0	2
21-35	0	17	0	0	0	0	17
36-50	0	28	8	2	2	0	40
51+	0	10	24	7	6	10	57
Totals	2	55	32	9	8	10	116

'A' Students
'B' Public Sector Employees
'C' Private Sector Employees
'D' Unemployed
'E' Pensioners
'F' Unable to Work
'G' Grand Totals

Source: A questionnaire survey carried out by the researcher in April and May, 1988

7.40 As much as 63% (or 55 persons) of the total 87 employed heads of households in the study village are employed in the public sector. This is a similar picture to the one revealed by the previous studies made for the whole of the Al-Baha labour force's occupations, particularly in terms of the limited role of the private sector in provision of employment. Two points are important to remember for later purposes: first, only a tiny proportion of the 55 public sector employees of Qezzanah work within the same village while the others travel daily to jobs far

away from their homes and, second, none of the 32 private sector employees of Qezzanah (see Table Twelve) works in a manufacturing industry, but mainly in subsistence agriculture.

7.41 Having briefly highlighted their education levels and occupations, attention will now be devoted to examining the attitudes of the 116 heads of households interviewed in Qezzanah towards the proposed centres and their implied industrialisation. This will help to discover whether social conservatism against industrialisation is potentially a real problem, which might constrain the effective and immediate involvement of the Al-Baha workforce in the proposed growth and development service centres.

ATTITUDES OF THE INTERVIEWED POPULATION TOWARDS THE PROPOSED INDUSTRIALISATION PROGRAMMES.

7.42 In order to find out about, and to measure the intensity of, social conservatism against industrialisation in the Al-Baha region, three consecutive questions were asked of the 116 persons interviewed in the Qezzanah village: first; Would you like to see factories spread throughout the Al-Baha region? second; If you were unemployed, would you like to work in a factory? and third; If you were single, would you like to marry a daughter whose father is a factory worker? For the purposes put forward at in Paragraph 7.36, the data gathered will be categorised according to educational levels and ages in the respective contexts of Tables Thirteen and Fourteen.

7.43 Of the 116 persons interviewed, 74 (or 64%) would like to see factories spread throughout the Al-Baha region, 21 (or 18%) would not, while 21 (or 18%) do not know if they would (see Table Thirteen). Setting aside their reasons behind such attitudes, most

Table Thirteen: Stratifying Answers to the Exploratory Questions About Social Conservatism According to Educational levels: The Data Reflects Attitudes of the 116 Heads of Households in Qezzanah, The Study Village

Educational Levels	A			B		
	Yes	No	Don't Know	Yes	No	Don't Know
Highly Educated	5	0	0	5	0	0
Fairly Educated	20	0	5	16	5	4
Educated	19	0	1	15	5	0
Illiterate	30	21	15	18	42	6
Totals	74	21	21	54	52	10
Grand Totals		116			116	

Educational Levels	C			Total in Categories
	Yes	No	Don't	
Highly Educated	4	1	0	5
Fairly Educated	4	15	6	25
Educated	5	12	3	20
Illiterate	6	57	3	66
Totals	19	85	12	166
Grand Totals		116		116

Notice: For Educational Levels, Refer to Table Eleven
'A' Would You Like to see Factories Spread Throughout the Al-Baha Region?
'B' If You Were Unemployed, Would you Like to Work in a Factory?
'C' If You Were Single, Would You Like to Marry a Daughter Whose Father is a Factory Worker?
Source: Answers to three questions that were embodied in the Researcher's questionnaire survey which was carried out in April and May, 1988.

of them would like to see factories spread throughout the region, and that should lead to an optimistic starting impression. However, of those 116 persons interviewed in the study village, 54 (or 47%) would like to work in factories if they were unemployed, 52 (or 45%) would not, while the remaining 10 persons (or 8%) do not know whether they would. Table Thirteen takes the investigation even deeper to show that, of the 116 persons

interviewed, only 19 (or 17%) would like to marry daughters whose fathers are factory workers if they were single, 85 persons (or 73%) would not, while 12 persons (or 10%) do not know whether they would. In other words, the frequency of the answer 'yes' has decreased from 74 (or 64%) as those who would like to see factories spread throughout the region to 54 (or 47%) as those who would like to work in factories if they were unemployed and, ultimately, to only 19 (or 17%) a those who would like to marry daughters whose fathers were factory workers (see Table Thirteen). This demonstrates vividly the existence of social conservatism against industrialisation in the Al-Baha region. This conservatism seems to be more intense as those populations are asked to involve themselves in industrial work and to have industrial workers fully assimilated in their societies. The question is: Do these attitudes towards industrialisation change in response to educational levels? If yes, how do they change?

7.44 Table Thirteen also provides illuminating matters related to the above questions. All the 5 highly educated persons interviewed would like to see factories spread throughout the region, and all would like to work in factories if they were unemployed. Four of them would not hesitate to marry daughters of factory workers, despite social attitudes towards that. They attributed their attitudes to the fact that marrying a daughter whose father is a factory worker does not contradict the orders of Islam as long as she is a Moslem herself. However, in the other extreme, 45% (or 30 persons) of the 66 illiterates would like to see factories spread throughout the region, 27% (or 18 persons) would like to work in factories if they were unemloyed, while only 9% (or 6 persons) would like to marry daughters of factory workers if they were

single. The remaining data in Table Thirteen shows stronger opposing attitudes against having factories spread throughout Al-Baha, working in factories and marrying the daughters of factory workers as educational levels decrease. This suggests that as educational levels increase, social conservatism against industrialisation becomes less intense and, ultimately, eroded in this particular village. Reserving this conclusion for later use, the other question is: Do attitudes towards industrialisation change between different age groups in Qezzanah?

7.45 In order to provide an answer to the above question, the data in Table Thirteen are re-categorised so the various attitudes can be assigned to age groups. Table Fourteen is the end product of the re-categorisation process. It shows vividly that the people aged under 50 years do in the main like to see factories spread throughout the region, and would work in factories if they were unemployed. On the other hand, they would not marry daughters of factory workers if they were single, mainly due to social rather than to purely personal attitudes. On the other hand, of the 57 persons interviewed who are aged above 51 years, 24 (or 42%) would like to see factories spread throughout the region, 14 (or only 25%) would like to work in factories if they were unemployed, while only 5 persons (or 9%) would like to marry daughters of factory workers (see Table Fourteen). This suggests that social conservatism against industrialisation in Qezzanah (as a study village within Al-Baha), tends to be more intense among the elderly who, as demonstrated previously, are mostly illiterate.

7.46 Having demonstrated that social conservatism against industrialisation tends to be less among the young highly educated people, the data in Tables Thirteen and Fourteen suggest that

Table Fourteen : Stratifying Answers to the Exploratory Questions About Social Conservatism according to Age Groups.

Age Groups (years)	A			B		
	Yes	No	Don't Know	Yes	No	Don't Know
Under 20	2	0	0	0	2	0
21-35	13	1	3	11	4	2
36-50	35	2	3	29	8	3
51+	24	18	15	14	38	5
Totals	74	21	21	54	52	10
Grand Totals		116			116	

Age Groups (years)	C			Totals
	Yes	No	Don't Know	
Under 20	0	2	0	2
21-35	6	9	2	17
36-50	8	28	4	40
51+	5	46	6	57
Totals	19	85	12	116
Grand Totals		116		116

Notice: The questions 'A', 'B' and 'C' are the same ones listed under Table Thirteen.
Source: A questionnaire survey carried out by the researcher in April and May, 1988.

social conservatism against industrialisation in Qezzanah will probably be less obvious among the forthcoming, more educated generations. However, for the time being, this social conservatism is likely to aggressively minimise the involvement of the young active population in Al-Baha in the proposed growth and development service centres. In other words, the previously calculated male labour force in Al-Baha would not only be less than required to satisfy the absolute number of workers required for the proposed policy, but would also - due to factors like social conservatism against industrialisation - be less interested and motivated to participate effectively and promptly in the proposed industrial programmes, This conclusion could be fairly generalised to the

rest of the Saudi backward regions in particular.

7.47 The next section will proceed to examine the potential impacts of the proposed policy on intra-regional migrations: one of the previously filtered issues for deliberate study.

ABILITY OF THE POLICY TO STIMULATE MIGRATIONS FROM NON-CENTRAL TO CENTRAL PLACES

7.48 In order to have the proposed concentrated infrastructure services efficiently utilised, both the Third and Fourth Development Plans (1980-1990) put great emphasis on the ability of the proposed growth and development service centres to attract both enterprises and population from their surrounding areas. In this way, the services provided for industrial development could be better utilised, in the plans' views:

> "The policy for the development of physical infrastructure is to select those areas which can be identified as having potential to become growth centres for productive economic activities, capable of attracting and absorbing the population from other areas which lack such potential; and to concentrate the services of all government agencies in these designated growth areas" (MOP, 3rd Plan, 1980-85, p.77)

In Chapter Six, the ability of the proposed centres to attract enterprises from within and outwith the region was objectively studied. The question here is: Will application of this policy in the Al-Baha region stimulate migration of inhabitants from non-central to central places, so that more efficient utilisation of infrastructure services could be achieved?

7.49 Qezzanah was identified as a possible non-central village and, therefore, was selected for deliberate study. As was assumed in relation to various matters, representativeness of Qezzanah to social attitudes in the other possible Al-Baha non-central places

was partially demonstrated and partially assumed in Chapter Four.

7.50 In order to highlight matters related to the above question, the 116 heads of households interviewed in Qezzanah were asked two questions: first, if infrastructure services were concentrated centrally in your region, would you then move to live there? and, second, if infrastructure services and jobs were concentrated centrally in your region, would you then move to live there? In order to find out if their attitudes towards the above exploratory questions differ with educational levels and ages (as they do towards industrialisation), Tables Fifteen and Sixteen categorise their answers according to educational status and age groups respectively.

7.51 Of the 116 heads of households interviewed in the study village, only 6 persons (5%) would move to areas of concentration if infrastructure services became concentrated centrally within the Al-Baha region, 101 persons (or 87%) would not, while the remaining 9 persons (or 8%) do not know if they would (see Table Fifteen). The 6 persons who would move are originally from other villages but moved a long time ago to live in this particular village for reasons other than economic. However, if not only infrastructure services but also jobs became concentrated centrally within Al-Baha, 8 persons (instead of 6 in the first case) would move, 95 (instead of 101 in the first case) would not, while 13 persons (instead of 9 in the first case) do not know if they would. In other words, in the case of concentrating both jobs and infrastructure services centrally within the region, 8 persons (or 7% of the 116 persons interviewed) would move there instead of 6 persons (or 5%) in case of concentrating infrastructure services only. Most of those who would not like to move to areas of

concentrations attributed that to two complementary factors: first, they would not like to desert their inherited lands, relatives and tribes for the sake of being closer to better services and, second, the car as a currently dominant means of transportation would enable them to obtain benefit from distant jobs and, probably, service concentrations.

Table Fifteen: Educational – Categorised Statistics to Illuminate the Possible Migration to Infrastructure Services Concentrations: The data are Related to Heads of Households in Qezzanah, the Study Village.

Educational Status	A			B			Total
	Yes	No	Don't	Yes	No	Don't	
Highly Educated	1	4	0	1	4	0	5
Fairly Educated	2	22	1	4	18	3	25
Educated	1	16	3	1	15	4	20
Illiterate	2	59	5	2	58	6	66
Totals	6	101	9	8	95	13	116
Grand Totals	116			116			116

'A' If infrastructure services were concentrated centrally in your region, would you move to live there?
'B' If those services and jobs were concentrated centrally in your region would you move to live there?
Notice: For the meanings of educational categories, refer to Table Eleven.
Source: A questionnaire survey carried out by the researcher in April and May, 1988.

7.52 Do attitudes towards moving to areas of infrastructure services concentrations differ due to differences in educational levels, as they did towards industrialisation as a whole? Table Fifteen also highlights matters related to this question. It shows vividly that, of the 5 highly educated persons interviewed, 4 would not move to areas of concentrations, even if jobs were concentrated together with the infrastructure services. The remaining data embodied in Table Fifteen demonstrate weak correlations between educational levels and the willingness of the (possible) non-central inhabitants interviewed to move This suggests that, as

opposed to the case of social conservatism against industrialisation, possible future enhancement of overall educational status would not cause many people to move to the central concentrations of infrastructure services and jobs in Al-Baha.

7.53 To demonstrate the conclusion reached above, of the 55 public sector employees who live in the study village (refer to Table Twelve), 49 travel daily aggregate distances ranging from 9 to 100 km in order to attend their jobs. None of them thought of moving to live near his work. This indeed reflects that their loyalties to their tribes and relatives outweigh the additional transportation costs. The unwillingness of the AL-Baha population (represented by the interviewed population in Qezzanah) to move to within-region concentrated jobs and infrastructure services should not, however, be viewed as a contradictory finding to the witnessed massive rural-urban migrations (see P. 8.43) in Saudi Arabia: daily commuting to work in the case of having the concentrations within-region is apparently more easily possible.

Table Sixteen: Age-categorised Statistics to Illuminate Possible Migration to Infastructure Service concentrations: The Data are Related to Heads of Households in Qezzanah, the Study Village.

Age Groups (years)	A			B			Total
	Yes	No	Don't Know	Yes	no	Don't Know	
Under 20	0	2	0	0	2	0	2
21-35	1	16	0	1	15	1	17
36-50	4	32	4	4	30	6	40
51+	1	51	5	6	45	6	57
totals	6	101	9	11	92	13	116
Grand Totals		116			116		116

'A' and 'B' are the same questions considered and stated under Table Fifteen.

Notice: For the meanings of educational categories, refer to Table Eleven.

Source: A questionnaire survey carried out by the researcher in April and May, 1988.

7.54 Having argued the weak correlations between the educational status of the people interviewed and their willingness to move to areas of concentrations, are attitudes towards movements any better correlated with differences in ages? Table Sixteen is self-explanatory in this regard. It demonstrates that it is not only the elderly but also those under 35 years of age who would not like to move to infrastructure service and job concentrations. This demonstrates that not only education levels but also differences in ages seem to have little significant correlation with the attitudes of the 116 persons interviewed towards moving to the proposed areas of concentrations. Consequently, the proposed growth and development service centres would not only be weak in terms of polarising or backwashing enterprises from surrounding areas (as demonstrated in Chapter Six), but also in terms of doing so for the non-central inhabitants as well. Therefore, the proposed centres would not work to the expectations of the national plans as far as stimulating of better utilisation of the intended concentrated infrastructure services is concerned. Assuming representativeness of the attitudes of the population interviewed in Al-Baha, the conclusions regarding this particular issue can be generalisd to the rest of the Saudi backward regions:

7.55 Finally, the various studies made in this chapter suggest - for later purposes of the thesis - the following:

i. *The policy of hierarchical growth and development service centres is proposed for social aims as well: e.g. for aiding the most deprived population, through stimulating, first, development of economic activities in rural areas and, second, provision for work-to-worker conditions;*

ii. *By the year 1985, 60% of the civil (i.e. non-military)*

employees in Saudi Arabia were non-Saudis. Despite the intended repatriation of 600.2 thousands of the non-Saudi emloyees over the period 1985-1990, 49% of the civilian employees in Saudi Arabia will still be non-Saudis (refer to Table One). Furthermore, the long term commitment to the Saudiisation programmes (i.e. emloying Saudi labour in the jobs available), the still witnessed - although of sharply decreasing rates - rural-urban migration, the noticeable social conservatism - although likely to be eroded with advancement in education - against immediate and effective participation in industrialisation in the rural areas, and the still abundantly available more generously paid and less demanding jobs in sectors other than industrial, all are genuine obstacles to the implementation and proper functioning of the proposed high number of rural industrial centres in Saudi Arabia: and

iii. *As demonstrated in the chapter, the policy is potentially unable to stimulate migration of inhabitants to the proposed centres. This will not help the policy to live up to the expectations of the development plans, as far as utilisation of concentrated infrastructure services is concerned.*

The next chapter will proceed to study the previously filtered (in Chapter Three) Settlement (or locational) Issues: another discipline on which the proposed hierarchy of centres is deemed by the national plans capable of exerting positive impacts.

CHAPTER EIGHT: SETTLEMENT ISSUES

8.01 *Potentials for success or failure of the policy will be examined in this chapter from spatial (or settlement) viewpoints, with particular reference to the spatial implications of the policy on Al-Baha as a study region. Regional disparities as global phenomena will first be theoretically and pragmatically studied. These phenomena will then be studied from Saudi perspectives. Afterwards, the intended policy in Saudi Arabia will be introduced, and the functions, criteria of selection and applicability of the concept of hierarchical centres to Saudi Arabia will then be critically highlighted. The settlement conditions which are likely to constrain the proposed centres as primarily industrial areas (i.e. transportation linkages, landforms, land ownerships) will be analytically studied, and the chapter concludes by itemising some principle points.*

REGIONAL DISPARITIES: THEORETICAL AND PRAGMATIC VIEWS

8.02 Bigsten (1980) wrote that during the sixties the overall growth figures of most underdeveloped countries were improving. According to him, growth was in most cases concentrated in the small modern sectors and in certain regions, while the majority of the population was left on a very low standard of living; the income distribution had become more unequal. National policies tend, most of the time, to give more attention to maximizing economic growth with little consideration for their distributional consequences. This, according to Bigsten (1980), led to inevitable regional inequalities in a wide range of living standards.

8.03 Not only underdeveloped but also developed countries have experienced regional income, employment and other disparities.

Britain – as will be elaborated upon shortly – is a case in point. The question that lends itself to discussion is: Is the occurence of regional disparities inevitable? In other words: Should regional disparities occur at all? The next sub-section will deal with some illuminating models.

SHOULD REGIONAL DISPARITIES OCCUR?

8.04 As was thoroughly explained in Chapter One, Perroux argued that economic growth does not take place everywhere and at once, but rather in particular points from which benefits are diffused to the surroundings. Hirschmann (1958; p. 183) argued that:

> "There can be little doubt that an economy, to lift itself to higher income levels, must and will first develop within itself one or several regional centres of economic growth."

8.05 But, why does not development initially take place everywhere across space? A simple single clear-cut answer to this seems to be far from attainable. Nevertheless, the simplest subjective answer could be that natural resources are unevenly distributed across space. Accordingly, regions with better resources would have better potentials for immediate developments and, therefore, for faster comparative growth. Under these circumstances, public policies may intervene in favour of the disadvantaged areas in order to bring about more integrated and equalized developments. But, can they succeed?

> "Integration of all regions of a country in the process of development is one important prerequisite for a general equalization of incomes (for example). It is very difficult to bring about interpersonal equalization of incomes when certain areas are stagnating." (Bigsten, 1980, p. 1).

8.06 In an attempt to examine why tendencies of development are unevenly distributed, many regional growth models have been

formulated, mostly in the light of pragmatic experiences and objective studies. The three eminent models in this field will be highlighted in the next sub-section, namely: the Neo-Classical; the Cumulative Causations; and the Centre-Periphery.

The Neo-Classical Model

8.07 The arguments for this model are built on several assumptions, namely:

> "full employment, perfect competition, one homogeneous commodity, zero transport costs, regional identical production functions exhibiting constant returns to scale, fixed supply of labour and no technical progress." (Richardson, 1979, p. 137).

Assuming all those, the Neo-Classical Model believes that the wage (marginal product of labour) is a direct function of the Capital-Labour ratio while the return to capital (marginal product of capital) is an inverse function of the capital-labour ratio. Accordingly, high wages imply low marginal returns to capital, and high returns to capital are obtained in low-wage regions. Given identical production functions in all regions (as assumed in the above quotation), the model believes that labour will flow from low to high wage regions and capital will flow in the opposite direction in order to achieve higher marginal returns. According to the model, these flows continue until factor returns are equalized in each region. If further assuming equal labour participation between regions, the model believes that the regional growth process will be associated with equality in regional per-capita income (Richardson, 1973, 1979).

8.08 The Neo-Classical Model met with a great many criticisms. Richardson (1973) believed that features of the real world are not easily admitted into the neo-classical world, such as increasing

returns, oligopolistic competitions and uncertainty in future economic changes. Bigsten (1980) agrees with Richardson in that space is incompatible with perfect competition, complete certainty, marginal adjustment in prices, and the other background conditions of the neo-classical world. Attacking the list of assumptions upon which the Neo-Classical Model was built, Richardson (1973, p. 137) wrote:

> "Of course, the assumptions of this model are patently unrealistic. Its primary virtue is as a didactic device. Some of the assumptions made merely simplify the analysis; others determine the results."

8.09 On the opposing side, Hirschmann and Myrdal argued independently of each other that free market forces do not operate to remove regional inequalities, but rather – on the contrary – to increase them (Al-Ibrahim A., 1982). Despite dealing with some of its terminologies in Chapter One; the Myrdal and Hirschmann's Cumulative Causation Model will be highlighted next in order to discover possibly more fruitful interpretations for developments being uneven across space.

The Cumulative Causation Model

8.10 Myrdal (1957, p. 25) wrote:

> "The main idea I want to convey is that the play of forces in the market normally tends to increase, rather than to decrease, the inequalities between regions."

According to Myrdal, if things were left to market forces, a high number of economic activities would cluster in certain localities and regions, leaving the rest of the country more less in a "backwater" (Myrdal, 1957, p. 26). Due to increasing advantages of internal and external economies, Myrdal believed that such centres of agglomerations would be economically self-sustaining. However, benefits would become 'spread' from such centres of agglomeration

to the lagging regions (e.g. in the form of a return to agricultural products). Nevertheless, these 'spread' effects most of the time are outweighed by the 'backwash' ones, particularly by what Myrdal called the disequiliberating flows of labour, capital, goods and services from poor to rich regions.

8.11 Besides terming regional growth as a disequilibriating process, Myrdal attacked the Neo-Classical Model as being:

> "... a very abstract, almost crude and usually unrealistic theoretical assumption" (Myrdal, 1957, p. 144).

Accordingly, Myrdal believed in the tendency of regional growth, under free market conditions, to be far from being even across space. Furthermore, he acknowledged that 'spread' effects of agglomeration are always weaker than the backwash effects, but things tend to be worse the poorer the country is.

> "... that there is a tendency inherent in the free play of market forces to create regional inequalities, and that this tendency becomes more dominant the poorer the country is, are two of the most important laws ..." (Myrdal, 1957, p. 34).

8.12 As explained in Chapter One, Hirschmann (1958) came to develop his regional growth theories. He independently arrived at almost every basic conclusion arrived at by Myrdal, but he respectively termed Myrdal's 'spread' and 'backwash' mechanisms the 'trickling down' and 'polarization' effects. However, in context of his concerns with development strategy, Hirschmann emphasized the need to carefully allocate investments in a sequence of regions concentrating initially upon the points of rapid urban-industrial expansions and moving outwards to the periphery. Through the trickling down effects, periphery and distant areas would benefit. Accordingly, Friedmann (1966) argued that Hirschmann views regional balances as a stimulus to national growth.

8.13 The pragmatic basis of the Myrdal and Hirschmann's spatio-economic mechanisms of economic agglomerations were thoroughly discussed in Chapter One. What is worthy of notice here is that those two scholars believed that the occurrence of regional inequalities in free-market conditions is inevitable. Can policy intervention bring about regional equalization? Illustrating the case of Britain which experienced regional policy for over 50 years should help to answer this question. Prior to this, the Friedmann's Centre-Periphery Model will be briefly highlighted.

The Centre-Periphery Model

8.14 Friedmann (1966) searched literatures which pragmatically proved the existence of spatio-economic centre-periphery relationships on global, national and city scales. What is important for our purpose is to know about the latter two. He perceived the ideas of Francois Perroux, Myrdal and Hirschmann as given accepted models. He termed the areas to which economic activities become polarized as centres and the areas to which benefits are trickled down (or spread) as peripheries. Accordingly, he believed that those spatio-economic mechanisms have grown up around what he called "a core periphery concept" (Friedmann, 1966, p. 12).

8.15 The Centre-Periphery Model was intended to draw attention to some of the implicit structural relations that appear to govern the behaviour of two regions. These relations are, according to Friedmann (1966, pp. 12-13), as follows:

i The Central-Periphery relationships can be described as 'colonial'. In context of the mechanism of polarization,

factors of production (e.g. labour and capital) become displaced from periphery to centre.

> "One would conclude, though without substantial evidence, that the marginal productivities at the Centre are vastly superior to those obtainable from investments on the periphery" (Friedmann, 1966, p. 13);

ii As the periphery continued producing primarily agricultural materials, the balance of trade will continue in favour of centres, where manufactured goods will progressively become more expensive than exported goods. In such a case, governments may apply protective tariffs for domestic industries and subsidies for essential goods; and

iii Growing regional disparities may lead governments to attempt reversing the flow of resources and help raising per-capita incomes in periphery.

> "But this agitation in favour of the periphery - which is the real source of support for regional policy and planning - can have serious economic repercussions ... Redistribution of resource in favour of the periphery would significantly retard progress at the centre and, consequently, for the country as a whole." (Friedmann, 1966, p. 13).

8.16 Therefore, like the Cumulative Causation, the Centre-Periphery Model believes in the inevitability of the occurrence of disparities between centres and peripheries in free-market conditions. Furthermore, the model believes that the further public policies intervene in order to reverse flows of factors of productions in favour of the periphery, the more that gets at the expense of the national economy as a whole. This supports the previously discussed trade-offs between national economic efficiency and regional equity aims (refer to Chapter Six). However, the model is not exhaustive enough to tell whether or not

public policies are capable of bringing regional disparities to a zero level.

8.17 Englander's industrial locational factors, Christaller's locational regularity concepts of threshold and range of goods, and Losch's marketing principles are among the other eminent theories that implicitly argue in favour of the tendency of economic activities and goods to be unevenly distributed across space in free-market conditions. In doing so, they support the above described Cumulative Causation and Centre-Periphery Models. Therefore, all these eminent models and theories (setting aside the Neo-Classical Model which relies on strict assumptions) agreed on the inevitability of the occurrence and perpetuity of regional disparities in free-market conditions. However, the next section will deal with some pragmatic experiences with regional disparities for further illumination of this issue.

PRAGMATIC EXPERIENCES

8.18 Rather than exhaustively discussing their regional disparities, this section will comment on comparative indicators which reflect the existence, and probably perpetuity, of regional equalities or inequalities in two cases. The case of Britain is selected for brief investigation, mainly because it has applied forms of regional policy since at least the 1930s. The British experience – already referred to in Chapter Two – should help in illuminating the ability of regional policy to minimise regional disparities. Even so, it is difficult to know how things would have been in Britain without the policy, or the extent to which British Governments are willing to be in favour of regional equity at the expense of national economic growth.

8.19 At the other extreme, the case of Egypt will briefly be highlighted as an Arab Country which has not experienced formal regional policies. Therefore, the intention is to find out about the existence and perpetuity of regional disparities in with-policy (Britain) as well as in without-policy (Egypt) conditions. Although direct comparison would probably not be possible, the purpose of this section advises the use of the same indicator in both cases. The availability of efficient data imposed the use of unemployment rates as an indicator of regional equalities or inequalities in each case. However, the aim is not to find out about reasons, but about whether or not regional unemployment disparities existed and were perpetuated in each of the two cases. Nevertheless, prerequisites for correct comparison of unemployment rates in Britain with those in Egypt will – although beyond the purpose of this section – be briefly highlighted.

Regional Disparities in Britain

8.20 As elaborated upon in Chapter Two, Britain has applied regional policies primarily to help the disadvantaged areas: designations for assisted and development areas throughout Britain have already been discussed in Chapter Two. Intervention of public policy in favour of the British disadvantaged areas should have been built on the belief that without-policy conditions would not independently bring about help for such regions but rather would retain cumulative causation mechanisms acting in favour of the prosperous areas alone. After over 50 years of experience with regional policies of this sort, the question that lends itself to discussion is: Have regional disparities disappeared or been made less acute in Britain?

8.21 A fair assessment of the impact of the British regional policies should realistically recall all the applied policies and answer two enquiries: first, which policy did what? and second, how would things have been without policy? However, as stated above, it is the particular purpose of this sub-section to discover only whether or not regional disparities existed and perpetuated in Britain despite the long experience with regional policy.

8.22 Table One provides data about unemployment rates by region in Britain, in selected years of the 20th century. The unemployment rates provided in the Table stand to express the total of people in the labour-force age group who are able to work but cannot find jobs, as a percentage of the total labour-force (both employed and unemployed). Setting reasons aside, the data provided demonstrate vividly that regional unemployment disparities existed and perpetuated in Britain at least over the period between the 1930s and the mid-1980s.

8.23 A careful study of the data provided in Table One enables the argument that unemployment existed and perpetuated in London and the whole of the South-East (the most prosperous areas in Britain) but at comparatively lower rates than in the rest of Britain. In the other extreme, the regions of the north-west, Scotland, Wales and Northern Ireland persistently represented comparatively higher levels of unemployment, despite the fact that regional policies have been in their favour. The other point to notice in regard to Table One is that regional unemployment disparities are still at similar levels in 1984 to those in the mid-1930s, despite the experience with regional policy. MacKay R. (1978, p. 47) recognised that when he argued:

Table One: Unemployment Rates by Region in Britain

(percentages)
Selected Years

	1929*	1934*	1938*	1984**
London	5.6	9.2	7.8	9.4
South-East	5.6	8.7	7.7	9.9
South-West	8.1	13.1	8.1	11.2
Midlands	9.3	12.9	10.0	14.7
North-East	13.7	22.1	12.9	15.3
North-West	13.3	20.8	17.7	17.5
Scotland	12.1	23.1	16.8	14.4
Wales	19.3	32.3	25.9	15.5
Northern Ireland	14.8	23.4	24.4	20.5
U.K.	10.4	16.7	12.9	—

— Not provided

Source: * McCrone 1969, p. 100 (data are averages per correspondent years)

** Armstrong H. and Taylor J. 1986, p. 183 (data are for July 1984)

"In spite of regional policy, the assisted regions are still characterised by above-average unemployment and below-average income."

8.24 However, it could be argued that the most active regional policy in Britain was witnessed in the 1960s and 1970s. The 1980s witnessed a shift of interest to inner cities and urban economic regeneration. Accordingly, one might argue that regional unemployment disparities should have been minimal, or at least less acute, in the 1960s and 1970s. Would such an argument be acceptable?

8.25 The data provided in Table Two can efficiently assist in answering the above question. It is clearly shown that unemployment levels in general terms were less acute in Britain in 1977 (see Table Two). This in itself can probably be attributed to the whole economic condition of the country in the first place. However, as far as regional disparities are concerned, regional

Table Two#: Unemployment Rates By British Regions in 1977 and 1982

Regions	(percentages) July 1977	July 1982
South-East	4.9	9.7
East-Anglia	5.7	10.9
South-West	7.2	11.3
West-Midlands	6.7	16.2
East-Midlands	5.6	12.1
Yorks and Humberside	6.5	14.3
North-West	8.3	16.2
North	9.3	17.5
Wales	8.6	16.5
Scotland	8.8	15.6
U.K.	6.7	13.2

This Table is set separately from Table One mainly due to addressing areas with different geographical jurisdictions from those of the areas addressed in Table One.

Source: Manpower Service Commission (MSC), 1982, p. 35

unemployment rates were considerably less deviated in 1977 than in 1982 (Table Two). The active regional policies at that time should have made positive contributions to such a situation. If this is accepted, then it can be fairly argued that regional unemployment disparities existed and perpetuated in Britain, but were made less acute at the time of active regional policies. There are, however, uncertainties with any attempt to discover the extent to which regional policies contributed in minimising regional disparities in the 1960s and 1970s, due to the roles of other non-policy factors (e.g. the then current growing economy).

8.26 Having briefly examined the existence and perpetuity of regional disparities in with-policy conditions (i.e. in Britain), the next section will do the same with reference to without-policy conditions (i.e. in Egypt).

Regional Disparities in Egypt

8.27 According to Aliboni and others (1984), Egypt has not experienced formal policies which could attempt to shift the growth of economic activities and concentrations of public expenditures from Cairo and Alexandria to rural areas as well. Have regional disparities existed in such non-policy conditions?

Table Three: Average Unemployment Rates By Districts in Egypt (percentages)

Districts	Years			
	1961	1970	1975	1978
Cairo	7.5	3.5	4.0	5.7
Alexandria	9.2	7.6	7.0	6.6
Port Said	10.8	-	-	7.4
Ismailia	6.7	-	-	4.7
Suez	11.7	-	-	5.2
Damietta	2.3	1.87	3.4	4.0
Dakahlia	4.2	4.6	4.5	5.1
Sharkia	6.7	2.9	3.8	3.7
Kalyubia	7.6	3.2	3.7	2.9
Kafr-El-Sheikh	4.2	1.0	9.0	4.0
Gharbiya	4.4	4.6	4.9	6.1
Menoufia	2.0	2.5	4.3	4.7
Behera	3.0	4.6	5.5	3.8
Giza	6.0	5.6	9.9	3.7
Beni-Suef	5.6	2.6	3.8	4.6
Fayrum	5.1	2.6	3.9	6.4
Minya	5.3	3.9	4.5	7.4
Sohag	6.4	2.1	3.0	5.7
Qena	4.6	1.2	2.1	3.7
Aswan	5.8	6.6	2.4	5.6
Total	7.0	4.2	4.4	5.3

- Not available

Source: Hansen B. and Radwan S., 1982, p. 133.

8.28 The unemployment rates provided in Table Three express similar concepts to those expressed by the rates in Tables One and Two: the total workforce who are able to work but have no access to either private or public jobs, as a percentage of total employed and unemployed workforce. It is assumed for the purpose of this

section that working-age in Egypt is not significantly different from that in Britain. Bearing this in mind, Table Three would enable the argument that unemployment disparities existed in Egypt.

8.29 The massive migrations enabled Cairo and Alexandria to represent 45% of the total population in 1976 (16 millions in Cairo and 4 millions in Alexandria: Aliboni and others, 1984). This probably played a part in representing unemployment rates in these two large urban centres as higher than the national rates, despite public investments and mechanisms of cumulative causations that favoured them at the expense of rural areas.

8.30 Another look at Table Three reveals that the overall and the regional unemployment disparities were less acute and deviated in the early and mid-1970s throughout Egypt. According to Hansen and Radwan (1982), this could primarily be attributed to the outward migration of the Egyptian labour-force to the oil countries (Saudi Arabia and other Gulf countries) who started implementing their development plans by the early 1970s. Despite the initial intention not to provide reasons behind levels of unemployment in Egypt in this section, such broad arguments will help in later speculation about the possibility of directly comparing unemployment levels in Britain with those in Egypt.

8.31 However, Table Three - although not extensive enough to cover a longer period - demonstrates the existence and perpetuity of regional disparities in Egypt: without-policy conditions. This meets some of the arguments underlined by the Cumulative Causation and Core-Periphery Models. But, these models argue also that free-market (or non-policy) locational conditions increase regional disparities. On the contrary, Tables One, Two and Three enable (as purely numerical figures) the argument that regional unemployment

levels and disparities in Egypt (without-policy conditions) have been less acute than in Britain (with-policy conditions). The question is: Would such an argument be acceptable? The next section will attempt to answer this question, in the context of speculating about the possibility of directly comparing such absolute numerical figures.

Is Direct Comparison Possible?

8.32 It is probably misleading to directly compare regional unemployment levels and/or disparities in Britain with those in Egypt in light of the numerical figures provided in Tables One, Two and Three. This is because those figures represent unemployment levels (in Egypt and in Britain) that were brought about by non-comparable conditions. Among such conditions are probably the following:

i It is believed that the whole economy of Britain (GNP, GDP) is more sound than that of Egypt. In Britain, unemployment benefits are given to those registered as unemployed. Meanwhile, for an Egyptian to survive in Egypt, he needs to be either privately or publicly employed. The numerical figures provided in the tables referred to do not address the impacts of this factor which might (amongst other factors) show unemployment as less acute in Egypt than in Britain;

ii Primary sectors of economy (e.g. agriculture) are probably still employing a considerably higher percentage of the labour-force in Egypt than is the case in Britain. Setting aside levels of income, the capital-intensive activities in Britain and the labour-intensive activities in Egypt have

non-comparable impacts on the levels of unemployment;

iii Egypt is still experiencing a transitional stage of development that is characterised by high levels of rural-urban migrations. Because rural areas are (according to Aliboni, 1984) still losing their labour-force, the data in Table Three show that unemployment levels in some rural settlements are less than in large urban centres in Egypt. However, although lacking substantial evidence, inter-regional migrations of labour-force is probably less significant in Britain. These are undoubtedly non-comparable conditions as far as regional unemployment levels are concerned; and

iv As hinted at above, the developments that took place in some Arab oil countries in the 1970s attracted high proportions of the Egyptian labour-force. This should have reduced unemployment rates in Egypt (although with a probable simultaneous increase in dependency ratios). The same experience is of slight significance in Britain.

8.33 It would be ideal for the purpose of this section if comparable data about inter-regional movements of industries and labour-force in Egypt (without-policy conditions) and in Britain (with-policy conditions) were reliably available. This could probably better assist in addressing the roles of cumulative causations in both conditions. Nevertheless, the study (although non-directly comparable) enables it to be argued that regional disparities existed and were perpetuated in with-policy as well as in without-policy conditions. The data provided in Table Two (under the year 1977) demonstrate that regional disparities could be made less acute with realistic and effective regional policy.

8.34 The above finding should help in arguing that the existence and perpetuity of regional disparities in Saudi Arabia should be viewed as a natural phenomenon, which could be made less acute through the adoption of and adherence to realistic and effective policies. In the context of the next section, the existence of regional disparities in Saudi Arabia will be highlighted.

REGIONAL DISPARITIES IN SAUDI ARABIA

OVERVIEW

8.35 Having argued above that the occurence of regional economic disparities is perhaps inevitable, this section aims at highlighting and understanding regional disparities in Saudi Arabia. To do so, analysing the spatial distribution of employments in Saudi Arabia is potentially a helpful measure. This is mainly due to the fact that one of the fundamental aims of the proposed correcting policy is to help the backward areas in retaining their population, through providing for work-to-worker conditions (refer to P. 7.04).

8.36 The second potentially helpful measure of regional economic disparities in Saudi Arabia is the change in per-capita income across the spectrum. Selection of this measure is based on two grounds: First, it has a logical link with the first intended measure, i.e. with the geographical distribution of employments; Second, as has been already discussed, the Neo-Classical Model believes that regional equalities in terms of all growth factors (e.g. production functions, supply of labour, ... etc) should cause regional equalities in terms of per-capita income, as an end product of various spatio-economic mechanisms. Accordingly, intensities of regional disparities in various economic and,

probably, living conditions in a given country can be best revealed by highlighting how regional per-capita incomes deviate from equalization. Despite the fact that the Neo-Classical Model addressed conditions that were brought about by free-market conditions as the only regulatory concepts, per-capita income is still deemed an efficient measure for highlighting regional economic disparities in Saudi Arabia.

8.37 Unavailability of up-to-date statistics that could show current geographical distribution of employments in Saudi Arabia is unfortunate. However, Table Four provides statistics that trace back to 1980. They are deemed efficient for the purpose of this section, due to the fact that the policy concerned was proposed in 1980: the data in Table Four will, therefore, help in highlighting the conditions that brought about the policy, the potential viability of which this thesis is devoted to evaluating.

8.38 Table Four demonstrates vividly the existence of regional employment disparities in Saudi Arabia. Of the national employment in 1980, the Northern and Southwestern geographical regions had respective shares of 6% and 14%, while the other three geographical regions had an aggregate share of 80%. Table Four is self-explanatory in demonstrating the poor share of the Northern and Southwestern regions in the employments provided by various sectors, including the governmental.

8.39 The picture revealed by regional per-capita income disparities (Table Five) is not significantly different from that revealed by geographical distribution of employments in Saudi Arabia (Table Four), as far as demonstrating the existence of regional disparities is concerned. It shows that the Northern and Southwestern geographical regions had the two comparatively lowest

Table Four; Share of the Saudi Geographical Regions In The National Employments in 1980

Economic Activity	Central 000	%	Western 000	%	Eastern 000	%	Northern 000	%	Southwestern 000	%	Total 000	%
Agriculture (1)	127,3	21	149,7	25	47,8	8	80,8	14	193,2	32	598,8	100
Manufacturing (1)	47,9	34	58,8	42	15,1	11	6,2	5	11,6	8	132,6	100
Construction (2)	141,2	32	169,2	38	87,6	20	19,1	4	27,3	6	444,5	100
Government (2)	112,6	26	161,8	38	54,6	13	32,7	8	68,4	16	430,1	100
Others (3)	370,8	25	681,8	46	261,8	17	58,6	4	124,9	8	1497,9	100
Total	799,9	26	1221,3	39	466,9	15	197,4	6	425,4	14	3110,9	100

(1) the sectors which the proposed policy aims at primarily developing in context of the attempts to diversify the economy and to make regional disparities less acute,

(2) addressed because they are comparatively significant employers,

(3) stands for Utilities; Transport, Finance; Trade and other services,

Notice; Summation errors in percentages are due to roundings-up,

Source; KOCKS Consultants, in Saudi Arabian National Transportation Plan (SANTRAPLAN), MOP, 1980, p. 72.

annual average per-capita incomes in 1978, while the Central, Western and Eastern regions had the highest. The data in Table Five can, however, be correctly integrated with the data provided in the 'government' row in Table Four, since the former relate only to public sector employment. However, setting aside that Tables Four and Five address conditions in 1980 and in 1978 respectively, and that the former addresses public sector employment only, they demonstrate the existence of economic regional disparities just before and at the time of proposing the policy of hierarchical growth and development service centres in Saudi Arabia.

Table Five: Regional Income Distribution; The Data Address The Saudi Public Sectors' Employees in 1978

Geographical Region	Annual Average Per-capita Incomes (in Saudi Riyals)
Central	82,000
Western	56,400
Eastern	55,150
Northern	45,200
Southwestern	44,000
National	60,000

Source: Ministry of Labour and Social Affairs (1978), in Khashoggi, 1979, p. 140

8.40 Bearing in mind that the Southwestern and Northern geographical regions comprise most of the Saudi rural areas and dealing with Saudi Arabia as urban, rural and nomad components, better per-capita income levels were biased in favour of the Saudi urban areas and population in 1978. Considering 20,000 and 200,000 Saudi Riyals as respective measures of the lowest and highest annual per-capita income levels, the Ministry of Labour and Social affairs (1978) classified the urban, rural and nomad population in Saudi Arabia according to their annual incomes. In this respect, Table Six shows that only 26% of urban population received less than 20,000 Riyals in 1978, while 67% of the rural and 80% of the nomad populations received less than that sum. The in-between income-ranges show the considerably better-off income levels in the Saudi urban areas (see Table Six). However, the Table is not exhaustive to the extent of showing the public economic activities in which those income earners were engaged. Nevertheless, it demonstrates the existence of significant regional disparities

between urban and rural Saudi Arabia in terms of per-capita incomes, that should have been associated with disparities in various economic conditions.

8.41 The next sub-section will proceed to examine which of the studied growth models (the Neo-Classical; the Cumulative Causations; or the Centre-Periphery) can best describe and help understand how regional economic disparities occurred in Saudi Arabia.

Table Six: Percentage of Urban, Rural and Nomad Population in Saudi Arabia that Receive the Highest and Lowest per-capita Incomes in 1978 - data relate to the public sectors' employees.

	Less than 20,000 Saudi Riyals	From 21 to 50,000 Saudi Riyals	From 51 to 100,000 Saudi Riyals	More than 100,000 Saudi Riyals
Urban	26	47	17	10
Rural	67	27	5	1
Nomad	80	18	1	1
Total Population	42	39	13	6

Source: Saudi Government, Ministry of Labour and Social Affairs, 1978, in Khashoggi, 1979, p. 138

WHICH OF THE EMINENT GROWTH MODELS CAN DESCRIBE REGIONAL DISPARITIES IN SAUDI ARABIA?

Movement Of Labour

8.42 Due to better incomes and employments being in favour of urban areas, Saudi Arabia witnessed massive rural-urban migrations during the mid and late 1970s. Table Seven shows that shares of the large metropolitan areas of Saudi Arabia in the total population increased from 20% in 1970 to 42% in 1980, while shares of rural areas decreased from 60% to 46%.

Table Seven: Distribution of Total Population in Saudi Arabia (per cent).

	1970	1975	1980
Percentage living in Metropolitan centres (pop. over 100,000 each)	20	35	42
Small towns	20	16	12
Percentage living in Rural areas	60	49	46
Total	100	100	100

Source: MOP, 3rd Plan, 1980-85, p. 56

8.43 The rapid increase in the shares of the Saudi urban areas in the overall national population (see Table Seven) can, as argued above, be attributed to their comparatively better job opportunities and living conditions. Bearing in mind that the Saudi Western, Eastern and Central Regions have the three respectively largest shares in total urban areas, these three regions attracted high numbers of labourers, not only from the Saudi rural areas but also from foreign countries. (See Table Eight).

Table Eight: Labour Force Distribution by Nationality Groups and Geographical Regions in Saudi Arabia.

Geographical Regions	Labour force as a % of Total Population	Non-Saudis as % of Regional Labour Force
Western	34.6	42.0
Eastern	11.9	37.0
Central	23.1	34.0
Southwestern	20.0	15.0
Northern	10.4	9.0
Total/Average	100.0	30.0

Source: MOP, 3rd Plan, 1980-85, p. 60

8.44 As demonstrated when studying the demographic structure of Al-Baha and Qezzanah (the study village) in Chapter Four, the rural-urban migrations were selective: they were mostly represented

by the young-active-male population. Despite the fact that such massive rural-urban migration of labour force helped in supporting urban economic activities in the 1970s, they had some negative impacts on some rural areas. Table Nine, for example, demonstrates that the area of all possible agricultural land in the Al-Baha region increased from 26,250 hectares in 1973 to 26,810 hectares in 1982: this could primarily be attributed to the roles of the Ministry of Agriculture and Water in building dams and providing equipment loans for peasants. However, whereas up to 75% of all the possible agricultural land in the Al-Baha region was cultivated in 1973, in 1982 only up to 35% of all possible agricultural land in the region was actually cultivated. (See Table Nine). This sharp decrease could primarily be attributed to the massive out-migration of labour force from Al-Baha, which could be seen in the context of the spontaneous development of the Service Sectors of the Saudi economy that initially took place in urban areas. However, Al-Baha, for example, gradually became heavily dependent on food which was produced in other regions (e.g. Kasem) or/and imported from abroad.

8.45 Having demonstrated that movement of labour has been taking place from rural to urban Saudi Arabia, and having briefly described some of the consequences of that on rural areas, the next sub-section will examine the movement of capital (i.e. investments): the other part of the equation in view of the above-mentioned growth models.

Movement Of Capital

8.46 Changes in regional shares in the national manufacturing enterprises will be used to highlight the recent history of

Table Nine: Actual and Cultivated Agricultural Areas in the Al-Baha Region, in Hectares.

	1973	1982
All possible Agricultural Lands	26,250	26,810
All Cultivated Lands	19,570	9,410
Cultivated as a percentage of all possible agricultural lands	75%	35%

Source: In Finnplanco, 1985, Report No. 2, p. 123, Arabic version. (The percentages are calculated by the researcher.)movement of capital (i.e. investments) in Saudi Arabia. Using this particular measure is justified in two ways: first, manufacturing industry is one of the basic activities attributed to the proposed hierarchical growth and development service centres in Saudi Arabia; and second, manufacturing industries tend – at least in theory – to locate and relocate in light of many changing factors, of which labour and market conditions are fundamental. Therefore, as we discussed labour as a mobile factor, we can probably address capital as another mobile factor in relation to discussions and analysis regarding change in distribution of manufacturing industries across the breadth of Saudi Arabia.

8.47 Table Ten demonstrates vividly that, up to the year 1975, the regions had a negligible share in the national manufacturing factories, apart from the regions of Riyadh, Makkah and Eastern. As described in Chapters Four and Five, the programme of industrial estates and incentives was applied in those three regions (Riyadh; Makkah; Eastern) in 1975. This suggests that, prior to the year 1975, location of industries was perhaps largely regulated only byfree market conditions: i.e. by location of labour, raw materials, markets. Accepting this, these three administrative regions – which comprise large cities – should have had comparatively better factors of production which enabled them to

polarization and concentration of industrial enterprises and investments since the pre-estate times.

Table Ten; Number of Operational Factories in Saudi Arabia, Assigned to Years and to Administrative Regions, Over the Period 1970-1985

Year	A	B	C	D	E	F	G	H	I	J	K	L	M	N	Total
1970	57	48	34	8	--	3	--	--	--	2	--	1	--	--	153
1971	6	8	4	--	--	--	--	--	--	--	--	--	--	--	18
1972	10	15	1	--	--	--	--	--	--	--	--	--	--	--	26
1973	6	6	5	1	1	--	--	--	--	--	1	--	--	--	20
1974	21	11	8	1	--	1	--	--	--	--	1	--	--	--	43
1975	35	19	12	2	5	1	--	--	--	--	--	--	--	--	74
1976	45	31	29	8	6	4	--	--	--	--	--	--	--	--	123
1977	46	44	33	6	12	6	2	4	1	3	3	--	--	--	160
1978	33	28	37	9	9	4	5	3	--	1	3	--	--	--	132
1979	52	35	29	14	12	7	3	3	1	3	2	--	1	--	162
1980	36	41	44	13	21	7	--	4	2	1	2	--	--	--	171
1981	41	34	48	6	6	9	1	--	2	8	5	--	--	--	160
1982	30	14	12	1	8	--	3	4	2	--	1	--	--	--	75
1983	31	14	16	4	2	1	--	--	1	2	--	1	1	--	73
1984	14	5	11	4	1	1	--	--	--	--	1	--	1	--	38
1985	12	13	13	1	3	--	--	--	1	--	--	--	--	--	43
Total	475	366	336	78	86	44	14	18	10	20	19	2	3	--	1,471

The letters represent the administrative regions as follows;

A; Riyadh,	E; Kasem,	I; Najran,	M; Jouf
B; Makkah,	F; Asir,	J; Hail,	N; Quryyat,
C; Eastern,	G; Al-Baha,	K; Tabuk,	
D; Madina,	H; Gizan,	L; Arar,	

'-' = 0

Source; Ministry of Industry (1985), Industrial Statistical Report, Table 6, p. 20.

8.48 Table Ten enables the calculation that, by the year 1985, the three administrative regions of Riyadh, Makkah and Eastern had a total of 1,177 (or 80%) of the total factories in the nation.

Outside of them, the three regions of Madina, Kasem and Asir had a simultaneous total of 208 (or 14%) of the total factories in the nation, while the other regions (of which Al-Baha is one) had only 6% in aggregate.

Table Eleven: Total invested Capital in Operating Factories, Assigned to Years and to Administrative Regions, Over the Period 1970-1985 (Millions of Saudi Riyals)

Year	A	B	C	D	E	F	G	H	I	J	K	*	Total
1970	1,804	386	556	40	-	,3	--	-----	--	,2	,08	,16	2,786,74
1971	229	338	94	-	-	---	--	-----	--	----	-----	----	661
1972	303	493	18	-	-	---	--	-----	--	----	-----	----	814
1973	110	86	31	1	2	---	--	-----	--	----	,06	----	230,06
1974	586	868	364	2	--	2,4	--	-----	--	----	6,0	----	18,284
1975	1,045	1,055	894	7	51	2,0	--	-----	--	----	----	----	3,054
1976	1,381	634	283	1,177	152	31,0	--	-----	--	----	----	----	3,658
1977	818	1,524	2,250	178	1,122	54,0	19	2,247	2	10,0	16,0	----	8,240
1978	614	683	688	197	94	111,0	23	100	--	3,0	12,0	----	2,525
1979	769	1,156	5,575	352	55	89,0	10	16	21	8,0	17,0	5,0	8,073
1980	740	1,062	6,528	3,214	99	124,0	--	36	4	2,0	22,0	----	11,831
1981	667	585	2,725	7,342	104	118,0	21	-----	6	53,0	40,0	----	11,661
1982	747	512	430	2	61	---	20	28	10	----	3,0	----	1,813
1983	321	312	318	98	13	2,0	--	-----	2	13,0	-----	11	1,090
1984	408	123	296	69	2	3,0	--	-----	-	----	--8,0	2,0	911,0
1985	204	191	171	8	24	------	--	-----	7	----	------	----	605,0
Total	107,46	10,008	21,221	12,687	1,779	536,70	93	2,427	52	89,2	124,14	18,16	59,781,2

'-' = 0
The letters represent Administrative Regions, Same as in Table Ten,
* = The Three Administrative Regions of Arar, Jouf and Quryyat,
Source: Ministry of Industry (1985), Industrial Statistical Report, Table 9, p. 23,

8.49 According to the Ministry of Industry (1986), industrial concentration of the three administrative regions of Riyadh, Makkah

and Eastern have been respectively confined to the three major urban centres of Riyadh, Jeddah and Dammam: these centres had respective shares of 89%, 75% and 72% of their regions' total manufacturing industries in 1985.

8.50 Table Eleven views the regional distribution of industries from another angle – that is from the view of the invested capital. The Table is self-explanatory in terms of showing a similar picture to that demonstrated by Table Ten: that is investments in non-oil manufacturing industries tended to favour regions with largest cities and ports, both in pre-estate (i.e. pre-1975) and in post-estate (i.e. post-1975) times and conditions.

8.51 Therefore, it is evident that both labour and capital tended to concentrate in urban areas, in pre-estate as well as in post-estate periods. The seven rich people of Al-Baha (a rural region) run individual businesses in major cities (refer to Ps. 6.85 and 6.86). This, and the previous statistics about rural-urban migrations, suggests that both capital and labour have been flowing in the same direction: i.e. from rural to urban. Therefore, they have not been flowing in the opposite direction, as the Neo-Classical Model puts it (refer to P. 8.07). This is probably due to the so-called unrealistic assumptions of the Model. Rather, industrial developments and investments started and continued to concentrate in well-known urban areas. This suggests that the regional economic disparities in Saudi Arabia can perhaps best be explained and understood in the light of the philosophies of the Cumulative Causation Model.

8.52 As Friedmann's Centre-Periphery Model puts it, such cumulative causation in favour of development and growth of urban areas (centres) at the expense of rural areas (peripheries), may

stimulate intervention of public policy in favour of trimming or reversing the flows of factors of production (labour; capital) from centres to peripheries. Has this been the case in Saudi Arabia? This question will be answered in the context of illustrating the proposed policy in the next section.

THE FORMALLY PROPOSED CORRECTIVE POLICY

AIMS AND JUSTIFICATIONS

8.53 Indeed, the massive rural-urban migrations of labour force witnessed in Saudi Arabia were planned and favoured by the Second Development Plan (1970-1975). Among the Plan's strategies was that of:

> "Encouragement of internal migration from rural areas with surplus manpower to urban areas with industrial employment opportunities" (in the 3rd Plan, 1980-1985, in context of reviewing the Second Plan's strategies).

8.54 The existence of regional disparities in Saudi Arabia should be – as argued previously – viewed as a natural phenomenon that could happen anywhere in the world, and has never been denied by the Saudi Government. The Third Development Plan (1980-1985) seems to believe that the negative implications of the massive rural-urban migrations experienced were only symptoms of an underlying cause: that is the economic development policies being significantly biased in favour of urban areas, despite the great achievements in terms of service provisions (i.e. education, health, roads) all over the country. In order to correct such disparities (or at least to minimise them), the Plan therefore believed that the cure should be targeted to the main cause (i.e. the economic development policy) rather than to any of its symptoms.

> "The particular objective of the Third Plan will be to avoid over-concentration of resources in a few urban enclaves, which may be to the detriment of the rest of the Kingdom, and also to stimulate the provision of development facilities in selected areas which will support productive enterprises" (MOP, 3rd Plan, 1980-1985, p. 108).

8.55 Avoiding over-concentration of development in urban areas was advocated by the Third Plan (see the above quotation) in order to help the Saudi rural areas in retaining and probably attracting back some of their population who had previously emigrated.

> "... to assist the regions, and especially rural areas, to develop productive activities which will enable them to retain as many of their inhabitants as possible, and to extend distribution of services to assist those communities with the potential for self-sufficiency ..." (MOP, 3rd Plan, 1980-1985, p. 107).

The type of services meant in the above quotation will be clarified at a later stage in this Chapter.

8.56 Those objectives and approaches are proposed by the Plan in context of the overall regional strategy advocated in Saudi Arabia. The Key element and role of this proposed regional strategy is described by the Third Plan (1980-1985, p. 107) as:

> "The regional strategy offers a mechanism for the application of national objectives in both rural and urban environments. Its distinct role, hence, is to integrate the application of policy with a view to accelerating a more even geographical distribution of material and social progress."

8.57 In order to achieve the objectives of achieving more even geographical distribution of development services and economic activities, the Saudi Third Development Plan (1980-85) proposed that a hierarchical pattern of growth and development service centres be spread throughout the whole country. The Plan described this pattern (in page 110) as:

> "... will help contain disparities between regions and also allow full initiative to ministries to foster the development of the kingdom".

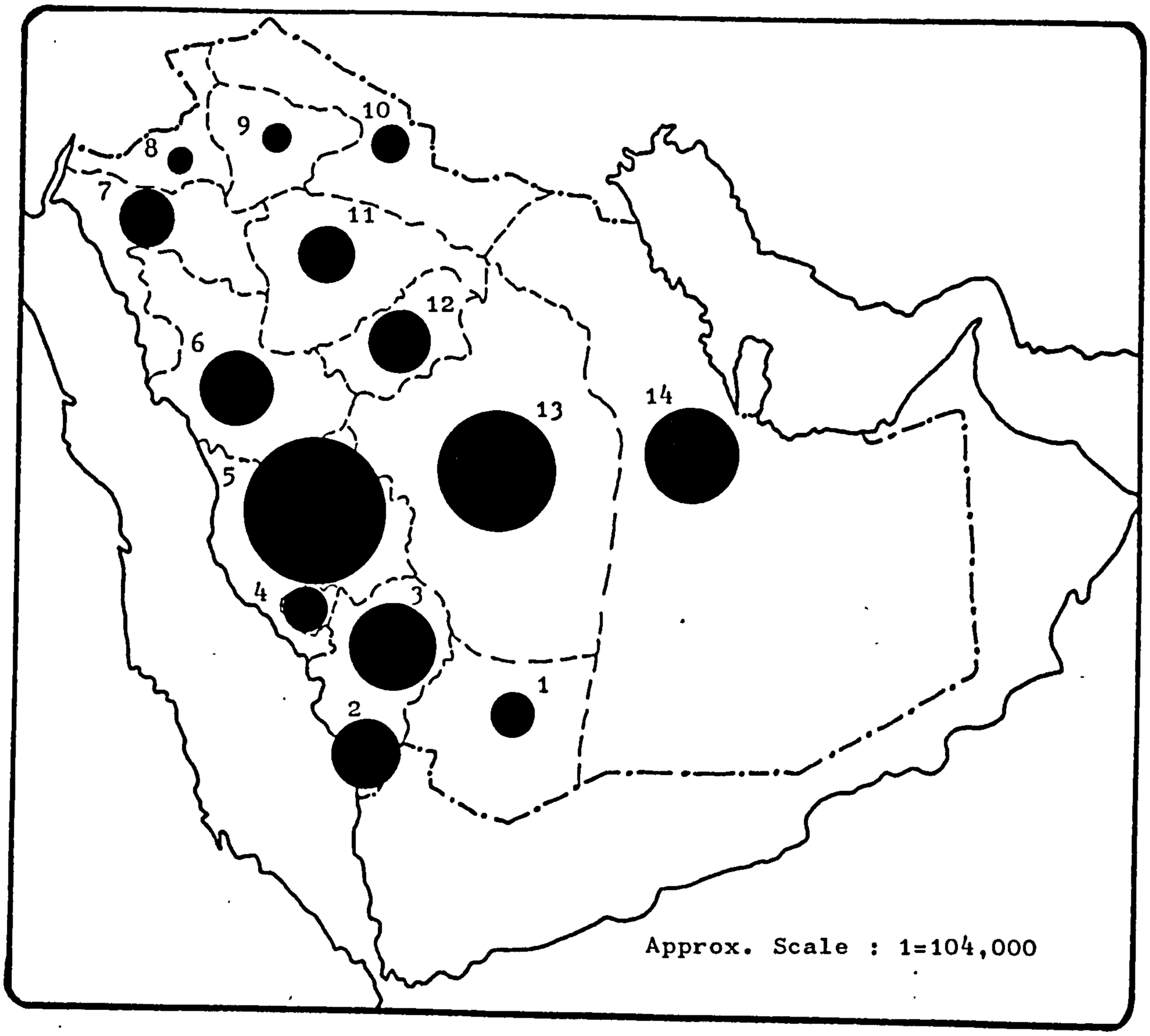
8.58 As detailed in Chapter Six, the Fourth Plan (1985-1990) came later to show commitment to the hierarchical centres proposed by its former Development Plan. As respectively highlighted in Chapters Six and Seven, both plans stated economic and social justifications and aims for adopting this type of policy in Saudi Arabia. From a settlement angle, the Plans believe that it is time to make regional economic disparities less acute through substituting the 1970s workers-to-work policy by spreading a hierarchical pattern of growth and development service centres throughout the country: i.e. a work-to-workers policy. This implies that the plans believe that job availability has been the main incentive for migration.

8.59 A number of questions lend themselves to discussion for the purpose of this chapter, namely: What are the functions attributed to the proposed Centres? Are those functions similar in centres of the same size? Are the centres intended to provide for ordinary services (health, education) as well? The next section will deal with matters that relate to the issues suggested by these questions.

FUNCTIONS OF THE PROPOSED HIERARCHY OF CENTRES

8.60 The proposd hierarchy of centres throughout Saudi Arabia is termed in the Third and Fourth Plans (1980-1990) as a system of growth and development service centres. In Chapters Six and Seven, the system has been viewed as primarily industrial growth centres. In this Chapter, it is important to examine all functions attributed to the system and the possible spatial implications of having such functions concentrated in particular centres.

Figure One : Proportional Illustration For The Saudi Administrative Regions ; Sizes of Population & Areas Covered



The Administrative Regions :

1 - Najran ;	6 - Madina ;	11 - Hail ;
2 - Jizan ;	7 - Tabuk ;	12 - Kasim ;
3 - Asir ;	8 - Quryyat ;	13 - Riyadh ; and
4 - Al-Baha ;	9 - Jouf ;	14 - Eastern .
5 - Makkah ;	10 - N. Frontiers ;	

—.—.—National Boundaries
— — — Administrative Boundaries

Source ; Developed From Table Twelve

8.61 Concerning the services for which the proposed hierarchy of growth and development centres is partially intended to provide, the Third Plan (1980-85, p. 109) wrote that:

> "It must be stressed that the institutions and services which are provided by a development service centre are those which are required to stimulate growth or satisfy particular welfare needs, but are not needed daily or continually by inhabitants of any settlement. Thus they are not the normal municipal services (electricity, water, sewage, roads, elementary and intermediate schools, local co-operatives, local agricultural improvement services, and so forth)".

8.62 What, therefore, is meant by the development service functions for which the centres are partially intended to provide? The same reference (p. 109) continues emphasising that:

> "the development service centre provides the more specialised administrative and technical back-up services which support the local activities, (such as Agricultural Banks, Agricultural Extension Services, Ministry Offices)".

8.63 Will the centres provide for ordinary services (education, health) as well? The Plan (p. 109) continues saying that the centre:

> "also provides the more specialised services which must be shared among several communities (due to insufficient regular demand or shortage of specialised staff) such as secondary schools, hospitals, welfare institutes".

8.64 Therefore, the hierarchy of centres is not intended to primarily work as a spatial basis for distributing ordinary services (health, education). Only in a case where threshold and/or range measures are satisfied at a centre, would centres provide for significant services. This is what is meant by the term 'demand' in the above quotation. Demand for ordinary services (education, health) is a function of two measures: number of population (i.e. threshold) and accessibility to services (i.e.

range). As demonstrated by Table Twelve and Figure One, these two measures which could affect demand for ordinary services (setting aside service significance) are significantly different between the Saudi administrative regions. Therefore, if reliance on distributing the proposed centres were to be on spatial jurisdictions of the existing administrative regions, then it could be safely argued that the same orders of centres in the hierarchy (say regional) are not expected to provide for the same or similar ordinary services, particularly under the current approaches of service-to-inhabitants: the Saudi administrative regions differ significantly in terms of area-covered, population size and population density measures (see Table Twelve and Figure One).

8.65 The proposed hierarchy of centres is primarly intended to provide - as previously quoted after the Third Plan - for development services and administrative institutions that could stimulate development of local economic activities and potentials throughout the country. Whether or not a centre would comprise an ordinary significant service (education, health) depends very much on the demand for the service (see the above quotation) that tends to be determined by threshold and range measures.

8.66 As a direct application for the strategy, the MOMRA (1982) selected national, regional and district centres from all over the country: criteria of selection will be explained in a later section of this Chapter, but were mainly based on assessment for resource and potentials for particular developments particularly at regional and district levels. This goes with the strategic definition of central functions as being biased towards serving the development of local activities and potentials. However, all

Table Twelve: Regional Population, Area and Population Density in Saudi Arabia, in 1985.

Administrative Regions	Population 1985 (000)	Area sq. km. (000)	Gross Density (Persons/sq. km.)
Makkah	2,489	135.7	18.3
Madina	731	140.9	5.2
Al-Baha	263	10.7	24.6
Riyadh	1,780	354.5	5.0
Qassim	479	57.0	8.1
Assir	960	78.4	12.2
Jizan	577	15.4	37.4
Najran	204	139.9	1.5
Eastern*	1,078	726.1	1.5
Hail	354	115.2	3.3
Tabuk	275	95.2	2.9
Northern Frontier	181	120.7	1.5
Al-Jouf	94	64.8	1.5
Qarryyat	46	50.0	0.9
Total	9,511	2,104.5	4.5

* includes Rub-Al-Khaly (the empty quarter).
Source: Estimates from Central Department of Statistics.

centres will provide for non-oil manufacturing industries as a constant use, besides a great emphasis on agricultural developments. This can be viewed in the light of the national long-term goal (refer to Chapter Six) that calls for diversifying the Saudi economy through particular emphasis on the development of the two promising sectors of agriculture and non-oil manufacturing.

8.67 Examples of the functions attributed by MOMRA (1982, unpublished) to the proposed hierarchy of centres are as follows:

* Riyadh is a national centre that will provide for functions like: Administration, Trade, Commerce, Financial, Service of National Significance, Manufacturing, Education, Transportation, Cultural.
* The Al-Baha town is a regional centre that will provide for functions like : Administration, Agro-based industries, Manufacturing, Agriculture, Research and Experimental station, Tourism.

* Abu-Arish is a district centre that will provide for Ordinary and Agro-based industries.

These examples give the impression that centres at regional and district levels (as will be illustrated in Figure Three) are intended primarily for supporting developments of local economic activities and potentials as well as providing for non-oil manufacturing industries. The national centres will provide for ordinary services as a primary function in addition to the economic functions (e.g. industrial estates). The next sub-section has much to contribute to this argument in the context of reading critically about the criteria used by the MOMRA (1982, unpublished) in selecting and ranking centres across the country.

CRITERIA OF SELECTION AND RANKING

8.68 The Fourth Development Plan (1985-1990, p. 425) stated a guideline in light of which specific criteria of centres' selection should have been formulated:

> "Given the development potential of an area, the provision of development services is geared to the needs and resources of the centre and its host area, whether it is national, regional or district. In addition, specific criteria of selection are: the resource potential of the centre and its zone of influence; strategic significance of the centre or its area; location advantages and accessibility for service provision".

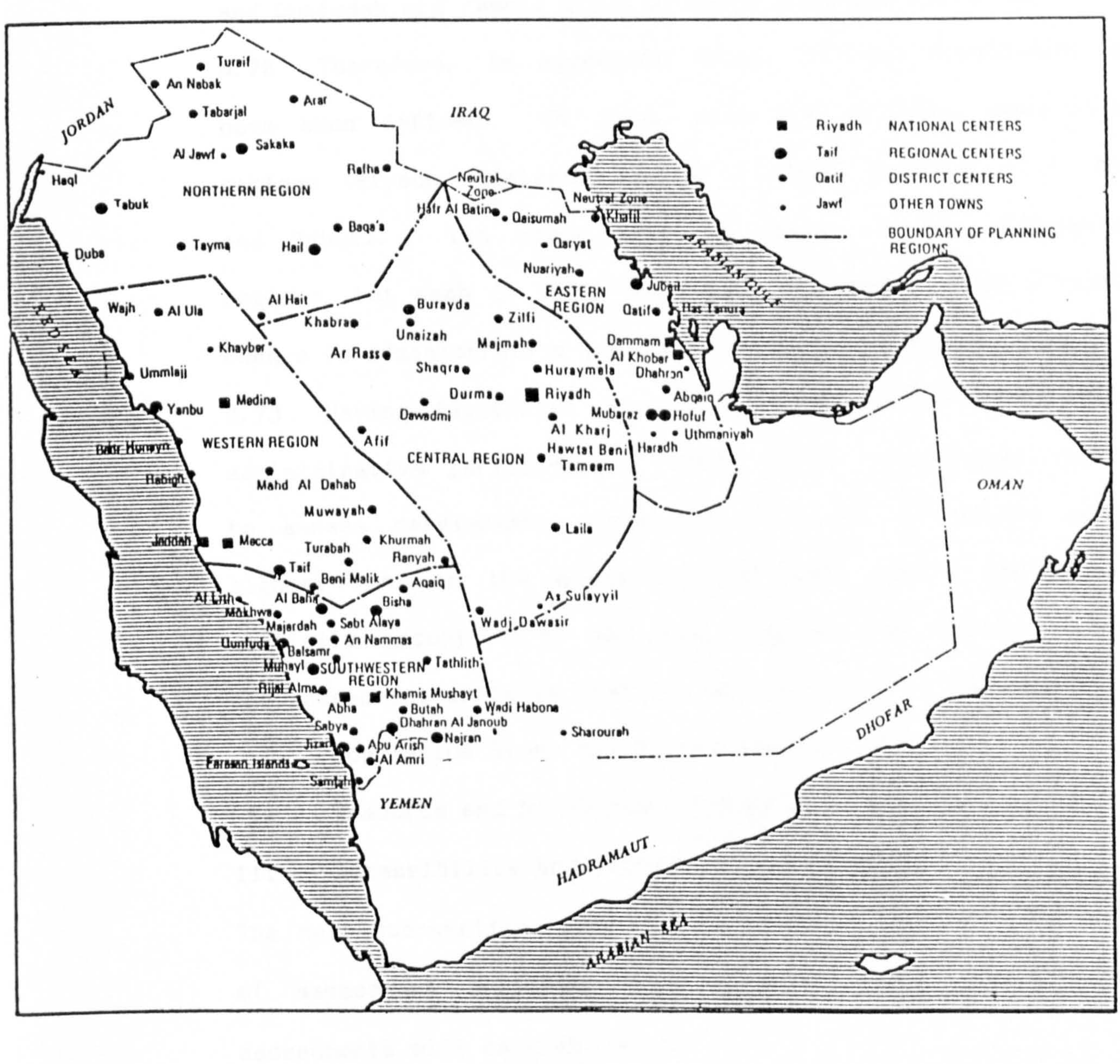
The last criteria guideline in the above quotation (i.e. accessibility for service provision) addresses the accessibility of the centre's zone of influence to the intended development services (e.g. Agricultural Banks, Ministry Offices): this is understood from matching this quotation with the previously quoted objectives and functions of the centres, particularly those at regional and district levels.

8.69 As will be expanded in Chapter Nine, MOMRA is responsible for translating the strategies and guidelines embodied by the MOP in context of the Five Years Development Plans into implementable physical plans. The task set out for MOMRA regarding this policy can be described as follows: In light of the objectives stated for the policy, the guidelines for selection criteria and the definitions for each level of centres, a hierarchy of national, regional and district centres has to be spread throughout the whole country, as indicatively illustrated by Figure Two.

8.70 As a first step towards selecting and distributing centres throughout the country, MOMRA believed that there was a need for delineating what would be called development areas in light of potentials for economic growth and types of local ecomonic activities. However, MOMRA (1982, unpublished) argued that identification of development areas within the Kingdom needs no elaborate analysis because of the existence of a few and fairly discrete locations of population concentration and resources, which are historically well defined areas.

8.71 In light of the above argument, MOMRA (1982) stopped identifying 12 (or 86%) of the 14 administrative regions as development areas, but sometimes changed names and kept spatial jurisdictions. These 12 administrative regions which were selected as development areas are: Riyadh (but called Riyadh Metropolitan Area); Makkah (but called Jeddah-Makkah-Taif Metropolitan Area); Eastern (but called Hofuf-Dammam-Jubail Metropolitan Area); Qassim (but called Buridah-Unaizah Area); Hail; Al-Baha; Jizan; Madina; Assir; Al-Jouf; Najran and Tabuk. Quryyat and the Northern Frontiers are the only two administrative regions that are not considered independent development areas: the reasons are probably

Figure Two : Indicative Illustration For The Proposed Growth and Development Service Centres Throughout Saudi Arabia



Source : After The Third Five-Year Development Plan, 1980-85 .

linked with resource and demographic potentials. Yanbu, Bisha and Qunfudah – although these are administratively respective parts of the Madina, Assir and Makkah regions – are treated as independent growth areas: Yanbu functions as an industrial City that differs from the potentials of other parts in the Madina region, and Bisha and Qunfudah are remote areas of their administrative regions.

8.72 Therefore, in aggregate terms, fifteen development areas have been defined. Of them, nine are existing administrative regions (Riyadh, Eastern, Qassim, Al-Baha, Hail, Al-Jouf, Najram and Tabuk). The other six are three current administrative regions, but each is split into two development areas without any change to administrative jurisdictions between main regions.

8.73 Having identified development areas primarily on existing administrative jurisdictions, MOMRA (1982, unpublished) proceeded to assess development potentials in order to decide upon the highest rank in the hierarchy that each area's centres should initially occupy (i.e. national, regional or district centres). The assessment criteria used can be classified as follows:

i Population Sizes and Distributions;

ii Resource and Development Potentials; and

iii Accessibility and Transportation Networks.

The next sub-sections will detail measures applied under each set of assessment criteria. At a later stage, results of the assessments will be highlighted.

Population Sizes and Distributions

8.74 This measure is intended to assess the relative importance of one area to another in terms of population sizes, percentage of population living in large settlements, distribution pattern of

settlements and size of each area's largest urban centres. However, reviewing the aims of the proposed hierarchy of centres suggests that this measure probably does not have the ability to participate effectively in assessing areas (or regions) according to their potentials for economic development and resources (e.g. Agriculture, Industry, Tourism, etc.). At least three reasons stand behind this argument. First, the rural-urban migrations witnessed during the late 1960s and throughout the 1970s were – as argued previously – a consequence of the workers-to-work policies at that time, which – for the purposes of utilising the rural labour force – favoured urban areas. The developments then current that worked as urban pull-factors in the face of the rural push-factors were probably not originated by the development of natural potentials, but rather were direct impacts of the utilisation of oil revenues. Due to mechanisms of cumulative causation, the areas that were favoured by public investments throughout those periods kept growing, attracting more labour force and probably also dependant population. Therefore, existng population distribution throughout Saudi Arabia is not necessarily positively correlated with spatial distribution of potentials for economic development for which the hierarchy of centres is proposed.

8.75 The second reason for the invalidity of population sizes and distributions as a measure of economic development potential throughout the country is that different Saudi inter- and intra-regional areas have different functions which probably are: first, not comparable, and second, not purely economic. For example, it is not valid to attribute the increase of population in Makkah and Madina (Holy Cities), in Jubail and Yanbu (centres for oil-based

industries), and in Riyadh (a capital city) to unaided economic reasons. An asssment of areas in light of their potentials for economic developments, the criteria must examine hidden reasons for differences in population size and distribution, and then emphasise the roles of those linked with economic development potentials (e.g. industrial jobs, agricultural jobs, ... etc.).

8.76 The third reason for the invalidity of this measure for the purpose of the proposed policy is that – in light of the previously quoted aims of the policy – functions of the proposed hierarchy of centres (particularly those at regional and district levels) are significantly biased towards stimulating development of local economic potentials. Therefore, assessing population sizes and distributions would be a more effective measure if the hierarchy of centres was primarily intended to work as a spatial base for distributing ordinary population-linked services (e.g. health, education, shopping), which probably require hierarchical threshold and range measures

8.77 Nevertheless, under the heading of Population Sizes and Distributions, MOMRA (1982, unpublished) evaluated the defined development areas (mostly administrative regions) in light of four measures: Total Population Sizes; Percentage of Population Living in Settlements of over 20,000 Inhabitants; Distribution Pattern of Rural Population; and Size of the Largest Urban Centre.

8.78 Under the heading Total Population Size of Regions (or Development Areas), a one-to-four Weighting scale was decided upon, as follows:

Total Population Size	Weight
Over 500,000	4
300 to 500,000	3
100 to 300,000	2
Below 100,000	1

8.79 Under the heading of Percent of People Living in Settlements of Over 20,000 Population, a zero-to-three weighting scale was defined, as follows:

Percent	Weight
Over 75%	3
50 to 75%	2
25 to 50%	1
Below 25%	0

8.80 Under the heading of Distribution Pattern of Rural Population, a one-to-three weighting scale was decided upon, as follows:-

Pattern	Weight
Nucleated in cluster	3
Fairly even	2
Very sparse	1

8.81 Finally, under the heading of Size of the Largest Urban Centre, a one-to-four weighting scale was formulated, as follows:-

Size	Weight
Over 500,000	4
300 to 500,000	3
100 to 300,000	2
Below 100,000	1

8.82 Setting aside the reasons and justifications behind the above assessment weighting scales, they reflect a wish to increase the probabilities of having large urban centres occupying higher orders in the proposed hierarchy of growth and development service centres. As will be highlighted later, population sizes and

distributions played significant roles in selecting national centres, but were relaxed as a selection criterion at regional and district levels: this could be viewed in light of the fact that the policy of growth and development service centres is proposed primarily to help development of economic activities and potentials in the backward regions. However, the next criteria used for assessing relative importance of the development areas (mostly administrative regions) are closely relevant to the purpose of the policy: the assessment of potentials for economic developments.

Resource Development Potentials

8.83 As argued and demonstrated in Chapter Six, the two sectors of agriculture and non-oil manufacturing enjoy special attention in Saudi Arabia despite the relatively high costs associated with their developments: fertilizers, machines, raw materials, are mostly imported from abroad. Adherence to development of these sectors fall into the context of the national long-term goal that calls for diversification of the Saudi economy, rather than continuous reliance on oil exports. The proposed policy of hierarchical centres allows for encouraging and stimulating development of these two and other economic activities throughout the country, and particularly in the backward areas which have sound potentials. Despite advising that non-oil manufacturing is a factor that should be a constant function in almost all the proposed centres, MOMRA's resource assessment criteria omit assessing local potentials for such a function: e.g. labour force; raw materials; land; capital; markets. The criteria, however, are significantly biased towards assessing the relevant importance of development areas in terms of potentials for

agricultural developments.

8.84 Under the heading of Land for Agricultural Development, a one-to-four weighting scale was considered. This scale has – according to MOMRA (1982, unpublished) – been based on the quantitative assessments of agricultural land resources in various regions of the Kingdom, that were made by the Ministry of Agriculture and Water, and other consultants in the early 1980s.

8.85 Under the heading of Water Resource Potentials, a one-to-four weighting scale was based on available quantities of regional water resources estimated by the Ministry of Agriculture and Water and other consultants, and was used for assessing development areas from the point of view of this issue.

8.86 The next sub-section will illustrate the third assessment criteria that were applied by MOMRA (1982, unpublished) to assess relative importance of the development areas.

Transportation Network

8.87 This set of criteria is deemed by MOMRA (1982, unpublished) important in assessing connectivity of regions (or development areas) at the inter- and intra-regional scales. Availability of efficient transportation linkages between settlements at the intra-regional scale could help local economic developers (e.g. peasants) to derive a concentrated development service (e.g. agricultural advisory, loans) and/or sell products to various intra-regional markets. Likewise, the availability of efficient inter-regional linkages would enable such developers to export products to other inter-regional domestic markets.

8.88 In assessing the adequacy of linkages between settlements at the intra-regional level, MOMRA (1982, unpublished) set out a one-

to-four weighting scale, as follows:-

Condition	Weight
Well-surfaced roads connecting	
- 75% or more settlements	4
- 50-75% of settlements	3
- 35-50% of settlements	2
- below 30% of settlements	1

8.89 In assessing the adequacy of connectivity of a region with the rest of the country, two new considerations were introduced: first, suddenly, the country is considered as five provinces (East, West, South, North and Middle) rather than fourteen administrative regions or fifteen development areas (as previously detailed); and second, connectivity at this scale takes into account different transport modes: roads; air; sea. However, a one-to-four weighting scale is used, as follows:-

Condition	Weight
Connectivity is enjoyed with all other provinces by a direct link.	4
Directly connected with four or three provinces only.	3
Directly connected with two provinces only.	2
Directly connected with one province only.	1

8.90 Setting aside reasonings and other questions that the formulation of the above criteria and weighting scales may address, these criteria were applied by MOMRA (1982, unpublished) in order to discover the relative importance of a region (or development area) and to decide accordingly upon the highest levels or ranks in the hierarchy (national, regional, or district) up to which each region's centres should initially occupy. The next sub-section will briefly highlight the basic result of the assessment process.

Results Of Applying The Assessment Criteria

8.91 Having defined the assessment criteria, MOMRA (1982, unpublished) pursued their application in order to develop an assessment matrix. In light of comparing values of composite weights, MOMRA selected the Makkah, Riyadh and Eastern regions as the only ones that could comprise centres that would rank up to national level of the proposed hierarchical pattern of growth and development centres. According to the applied criteria, these regions include large urban centres (in terms of population sizes) which comprise industrial estates, and have efficient intra- and inter-regional transportation linkages. However, of these three regions, four national centres were selected (Makkah, Jeddah, Riyadh and Dammam): the same criteria of population size, accessibility and potentials for growth and economic development were adhered to.

8.92 At regional levels, MOMRA (1982, unpublished) selected 20 regional centres and 16 district centres. More district centres could be selected in light of possible future regional studies. However, in selecting regional and district growth and development service centres which would stimulate the development of local activities and potentials, MOMRA biased the criteria heavily in favour of potentials for economic development and existing distribution of development services (e.g. ministry offices, agricultural banks). In other words, as inferred previously, population sizes and distributions have been relaxed as a selection criterion at the regional and district levels. The next sub-section will demonstrate this argument with reference to the selected growth and development service centres within the Al-Baha region.

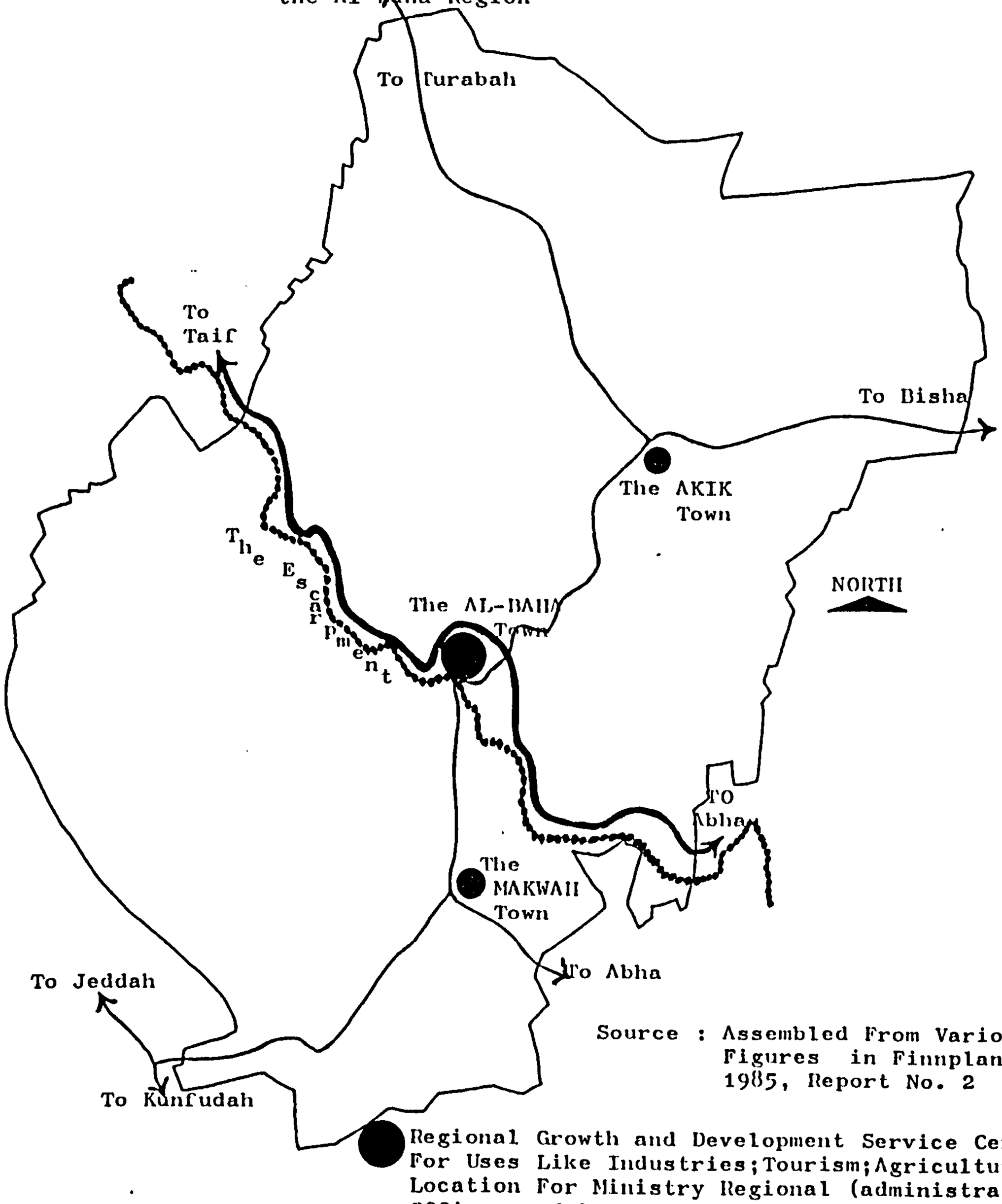
THE SELECTED GROWTH AND DEVELOPMENT CENTRES IN THE AL-BAHA REGION

8.93 Under the supervision of MOMRA, Finnplanco prepared a comprehensive service and economic development plan for the Al-Baha region. It is important to differentiate between the two approaches that were followed by this plan. These two approaches are: first, the hierarchical approach to provision of ordinary services (education, health) throughout the region; and, second, the hierarchical approach to the distribution of growth and development service centres that were addressed by the national strategies. The former approach leans to selecting settlements for efficient provision of services in light of their threshold and range measures.

8.94 The hierarchical approach to distribution of growth and development service centres within Al-Baha reflects the application of the national strategies. In light of those strategies, Finnplanco (1985) selected two growth and development service centres (Akik and Makwah) which can function as industrial and agricultural service centres, in which ministerial branch (or district) offices (the administrative offices rather than the services) can be concentrated (i.e. relocated) (see Figure Three). Al-Baha town was selected by MOMRA (1982, unpublished) as a regional growth and development service centre: as previously mentioned, it would function as an industrial, tourism and agricultural service centre, in which ministerial headquarter offices can continue concentrating (see Figure Three, Chapter Ten).

8.95 The selection of Akik and Makwah as growth and development service centres was based on similar criteria to those applied by MOMRA (1982, unpublished) in selecting regional centres in particular: accessibility and resource availability. However,

Figure Three : Spatial Distribution of the Proposed Hierarchy of Growth and Development Service Centres in the Al-Baha Region



Source : Assembled From Various Figures in Finnplanco, 1985, Report No. 2

Regional Growth and Development Service Centre: For Uses Like Industries;Tourism;Agriculture; Location For Ministry Regional (administrative) Offices and Development Services (consult Fig.3, Chapt. 10)

District Growth and Development Service Centre : For Similar Uses to the Above , But for Only Branch Admin. Offices.

population size and distribution as a criterion that played an important role in selecting national centres as such have been – as argued above – relaxed at regional and district levels. For example, Table Thirteen demonstrates that the Al-Baha town (a regional centre), Akik and Makwah (district centres) are not representing the largest populated settlements in the Al-Baha region.

Table Thirteen: Population Size in the Largest Settlements in Al-Baha, in 1982.

Settlements	Population (numbers)	% of total population in the region *
Al-Baha **	28,780	10.8
Bani Dabyan	11,680	4.4
Bani Hassan	10,400	3.9
Al-Farah	10,200	3.9
Baljurashi	40,320	15.2
Al-Akik ***	11,080	4.2
Al-Makwah ***	15,500	5.9
Kilwah	12,880	4.9

* Total population in the Al-Baha region in 1982 = 264,780.
** A regional growth and development service centre.
*** A district growth and development service centre.
Source: Finnplanco, 1985, Report " 2 + 3, p. 19, (Arabic version).

8.96 The selection of Akik and Makwah as district growth and development service centres that would – besides the Al-Baha regional centre – provide for industrial and agricultural functions and development services has been justified in light of the philosophies of Perroux, Myrdal and Hirschmann (refer to Chapter One and/or to the early section of Chapter Eight). Finnplanco (1985, p. 82, Arabic version) believed that Akik and Makwah had the potential for industrial developments which would enable them to polarize enterprises and spread benefits to the surrounding areas, although this may require a long time to become a reality. Furthermore, concentration of industrial developments only in these

two centres and in Al-Baha town would – according to Finnplanco – minimise the costs of infrastructure and incentives as benefits associated with advantages of economies of scale and economies of agglomerations. However, the particular criteria for selecting Akik and Makwah as growth and development service centres are, according to Finnplanco (1985, Report 6, p. 83, Arabic version), as follows:-

i. Accessibility to surrounding agricultural and inhabited settlements;

ii. Accessibility to airports and inter-regional roads; and

iii. Having these areas spatially far from inter-regional roads (although efficiently linked with them by roads) that cross the region would help in polarizing some of the enterprises concentrated along the sides of these roads, and this would help in minimising intra-regional disparities: one of the policy's fundamental objectives.

8.97 Having examined the functions and selection criteria of the proposed hierarchy of centres throughout Saudi Arabia, the question that lends itself to discussion is: Is there any functional logic in having the proposed growth and development service centres hierarchically structured throughout Saudi Arabia? The next section will attempt to answer this question with reference to central place theory: the theory that initially and analytically instigated the concept of hierarchical centres.

THE CONCEPT OF HIERARCHICAL CENTRES AND THE PROPOSED POLICY

8.98 The Third Plan (1980-1985, p. 108) wrote that:

> "The development centres are arranged in a hierarchy according to whether they are judged to be of national, regional, or local significance. The ranking of a particular area will be changed if it

later demonstrates greater potential than currently realised."

8.99 But, why rank such centres in a hierarchical pattern, since they are intended primarily to provide for economic activities and development services that are different from one to another?

> "The idea of a hierarchy of centres allows the promotion of areas to a higher category." (Third Plan, 1980-1985, p. 110.)

Difficulties which might accompany evaluation and promotion of centres in the hierarchy will shortly be spotlighted.

8.100 The concept of hierarchical centres is first introduced (in analytical styles) by Christaller (1933) and Losch's (1939) works (refer to Chapter One). However, the hierarchy meant by their central place theory is functionally and spatially quite different from the one addressed by the proposed hierarchy of growth and development service centres in Saudi Arabia. The former is built on the theory that, in free-market conditions and where the settlements concerned are homogeneous market towns, services and goods tend to be hierarchically structured broadly in light of their threshold and range measures as the principal locational regulatory concepts. There is no similar theory which argues that other economic activities (e.g. manufacturing, tourism) should locate in the same hierarchical structure, in free market conditions. On the contrary, the hierarchy assumed by central place theory is criticised because it "passes over the difference between market areas and the location of industrial activity" (McCrone, 1969, p. 63).

8.101 Despite all the differences in purpose and justification, the concept of hierarchical centres initiated by the central place theory was borrowed and adapted as a basis upon which economic

activities and development services could be spread, linked, and comparatively evaluated throughout Saudi Arabia. The Third Plan (1980-1985, p. 109) emphasised that services needed for the development of local economic activities which a regional and/or district centre would provide for should be supplied in light of two measures: "accessibility to the particular services and capacity of the services". The two terms of accessibility and capacity of services correspond to Christaller's range and threshold concepts (refer to Chapter One) - although the types of service are different in the two cases. However, accessibility has - as previously described - been a fundamental criterion which MOMRA adhered to in selecting centres at national, regional and district levels.

8.102 According to the above, at least four reasons can be mentioned for casting doubt on the practicality and functional logic in having economic activities and development services hierarchically structured throughout Saudi Arabia. These reasons are as follows:

i The concept of hierarchical centres has initially been developed in order to express hierarchical sizes of market towns and their spatial distribution. At the boundary of a certain good's or service's market town, demand for such goods or services approaches a zero level(refer to Losch's demand curve in Chapter One). For industries and other economic activities (e.g. agricultural, tourism, ...etc.) that the proposed hierarchy throughout Saudi Arabia is intended to provide for, the case is quite different. Industries (as shown in relation to the Jeddah Industrial Estate, the Yanbu Industrial City and the Al-Baha Factories

– refer to Chapter Five) may require to import raw materials, and to export final products from and to areas outside the spatial jurisdictions of the area in which they locate. In other words, their functional boundaries do not coincide with spatial jurisdictions of the areas in which they locate: this is quite different from the case assumed by central place theory and its hierarchical centres. The same argument can be made about peasants, where they may export some of their products to areas outside spatial jurisdictions of the area in which they locate. Therefore, there is no functional logic in having such economic activities hierarchically structured across space;

ii Just as in probably almost all countries throughout the world, the functions of the Saudi settlements and cities differ significantly in both terms of type and impact. For example, Makkah and Madina are two holy cities, Jeddah is a major sea-port, Jubail and Yanbu are major oil terminals, Abha and Taif are resort cities, Qassim is an agricultural area, and so on. As argued above, the concept of hierarchical centres was initially developed as a means for analysis of spatial structure of market towns across a homogeneous plain of agricultural areas. Bacause the towns concerned were all market towns, they peacefully and logically fitted a system of a single hierarchy in which towns were functionally integrated with each other. In the case of Saudi Arabia, settlements have significantly different functions and requirements for developing their local economic potentials and activities. It is probably logical from the functional point of view to have the

development services required for agriculture (a single function) hierarchically spread throughout, for example, the Abha region (assuming viability of this potential) as an independent case. What is not logical is to have – for example – Abha (a resort and agricultural region) occupying the same rank (1st order, regional centre) in the hierarchy as Jubail (an oil terminal and industrial city). Functions of these two centres (as an example) differ significantly in type and are likely to have non-comparable economic, social and settlement impacts: all are areas of objectives for the hierarchy of centres;

iii Having argued that functions of centres (and also sizes of regions in area and population terms – refer to Table Nine and Figure One, Chapter Eight) are non-comparable, it would be extremely difficult to achieve the purpose of:

> "The idea of hierarchy of centres allows the promotion of areas to a higher category" (Third Plan, 1980-85, p. 110).

As argued above, the policy has economic, social, settlement and instiutional objectives that are not ranked according to importance. Jubail, for example, is likely to better contribute to the national economy (through oil industries) than is the case with Abha. The latter is likely to provide more jobs (in agriculture, tourism and ministry offices) than the former. They are both 1st order regional centres. The question is: How can such non-comparable impacts affect upgrading or downgrading the order or rank of these centres? Things are likely to be assessed in light of contribution of a centre's activities to national economy. Therefore, the hierarchy of centres

will probably stimulate overlooking the social and settlement aims of the policy; and

iv It seems more promising in order for the policy to achieve its aims (among which are: stimulate growth of local activities; provide work-to-workers and; minimise regional disparities) – having defined areas for potential development – to disperse the development services throughout the backward areas in particular. This is to avoid employing the mechanisms of cumulative causation in favour of such centres at the expense of other more backward areas. In other words, this is an advocacy for extending the objective stated by the Third Development Plan (1989-85, p. 108) which states "A particular objective for the Third Plan will be to avoid over-concentation of resources in a few urban enclaves, which may be to the detriment of the rest of the kingdom", to the intra-regional level.

8.103 Having briefly explored the logic behind the concept of hierarchical growth and development service centres throughout Saudi Arabia, the next section will deal with some settlement factors that are likely to cause difficulties which may preclude implementation and/or proper functioning of the centres.

OTHER SETTLEMENT ISSUES

8.104 Transportation linkages, land forms and land ownerships are the three settlement issues that could influence the implementation and/or the functioning of the proposed hierarchy of growth and development service centres throughout Saudi Arabia. Although these issues were filtered for subjective consideration (refer to

Chapter Three) some data and map analysis will be provided. The next three sub-sections will deal respectively with these issues.

TRANSPORTATION LINKAGES

8.105 As previously described, MOMRA (1982, unpublished) assessed the efficiency of transportation linkages at both inter and intra-regional scales. In evaluating linkages at the inter-regional scale, a one-to-four assesment weighting scale was used. When connectivity is enjoyed by a direct link (air, sea or land) with all other four provinces, a region was given a value of 4. In the other extreme, a region is given a value of 1 when it enjoys direct connectivity with regions in one of the other four provinces. Setting aside discussions about the validity of such a weighting scale, only four administrative regions (Qassim, Riyadh, Eastern and Makkah) achieved values of 3-4. The remaining regions attained values of 2 (for each of Madina, Assir and Narjan) and 1 (for each of the other regions: e.g. Al-Baha, Jabuk and Joaf). The economic functions attributed to the centres (manuacturing, agricultural, tourism in some cases) require efficient connectivity with many regions and markets. Such a condition seems to be inadequate for most of the backward regions which the policy is proposed to help.

8.106 The importance of accessibility and linkages becomes more obvious at the intra-regional scale. As described previously, the assessment weighting scale used by MOMRA (1982, unpublished) in assessing the adequacy of intra-regional connectivities comprised the weights 4, 3, 2 and 1 that were respectively set out to signify conditions when 75%, 50%-75%, 35%-50% and 30% of settlements are connected with each other by good roads. Seven of the administrative regions were given values that ranged between 3 and

4, while the other regions were given values that ranged between 2 and 1. This revealed that in 50% of the administrative regions (almost in all the backward regions which the policy is primarily proposed to help : e.g. Al-Baha, Assir, Najran), at least 50% of their settlements were not connected by good roads. However, during the researcher's visit to the al-Baha Roads Administration (in May, 1988), the percentage was put at around 20% of settlements in the Al-Baha region that were actually served by well surfaced roads.

8.107 In light of the previously demonstrated unwillingness of non-central inhabitants to relocate in areas where jobs and infrastructure services would be concentrated (refer to P. 7.54), inhabitants of remote intra-regional settlements that were not efficiently linked with centres are likely to be disadvantaged by concentrations of job generators and economic activities (e.g. ministry offices, manufacturing industries). This will probably not help the policy to provide work-to-workers nor to minimise disparities at the intra-regional levels, particularly in backward regions.

8.108 The next sub-section will illustrate another settlement issue that is likely to preclude the implementation and/or proper functioning of the proposed hierarchy of growth and development service centres: land forms.

LAND FORMS

8.109 The hilly nature of Al-Baha may not represent most of the rest of Saudi Arabia in terms of this particular land form issue. Nevertheless, land form constraints to development exist over the whole country although of different natures (e.g. steep slopes in

Asir and in Al-Baha, sand dunes in the centre and in the empty quarter, etc.). In order to illustrate the impacts of the Al-Baha land forms on the implementation and/or functioning of the proposed centres, two approaches will be followed: first, map analysis, and second, questionnaire findings' analysis.

Map Analysis

8.110 Due to the absence of a comprehensive plan that could represent land form and topographical nature of the whole Al-Baha region, a closer analysis will be made of the Al-Baha town and its close surrounding villages. As has been described, the Al-Baha town was selected as a regional growth and development service centre. Assuming that such a selection has not eliminated the consideration of the potentials for urban expansion and growth (although this was not among the previously described selection criteria used by MOMRA, 1982), this analysis would help in building a general idea about topographical factors in the face of habitabilities and expansibilities of settlements throughout the region.

8.111 Figure Four was assembled from several maps that were prepared by Finnplanco (1985), in order to illustrate the distribution of inhabited settlements within what Finnplanco termed 'The Al-Baha Town's Primary Commercial Area'. This group of settlements is located on the north-eastern side of the escarpment. Their terraced slopes contour-heights vary, between 2,100 and 2,350 metres above sea level (Finnplanco, 1985).

8.112 As shown by Figure Four, the escarpment is a natural constraint to urban expansion towards the south-west. The existing forestry and agricultural lands are resources that must be preserved. In this respect, they can be considered as constraints

to future urban developments and expansions. Besides these, steep slopes are spread over significant random parts of the area shown by the map.

8.113 For our purpose, it is important to notice that the above randomly spread natural constraints to development can constrain implementation and expansion of the proposed centres and their industries. Figure Four demonstrates also that the vacant lands are mostly inhabitable, or habitable but with weak expansion and accessibility potentials.

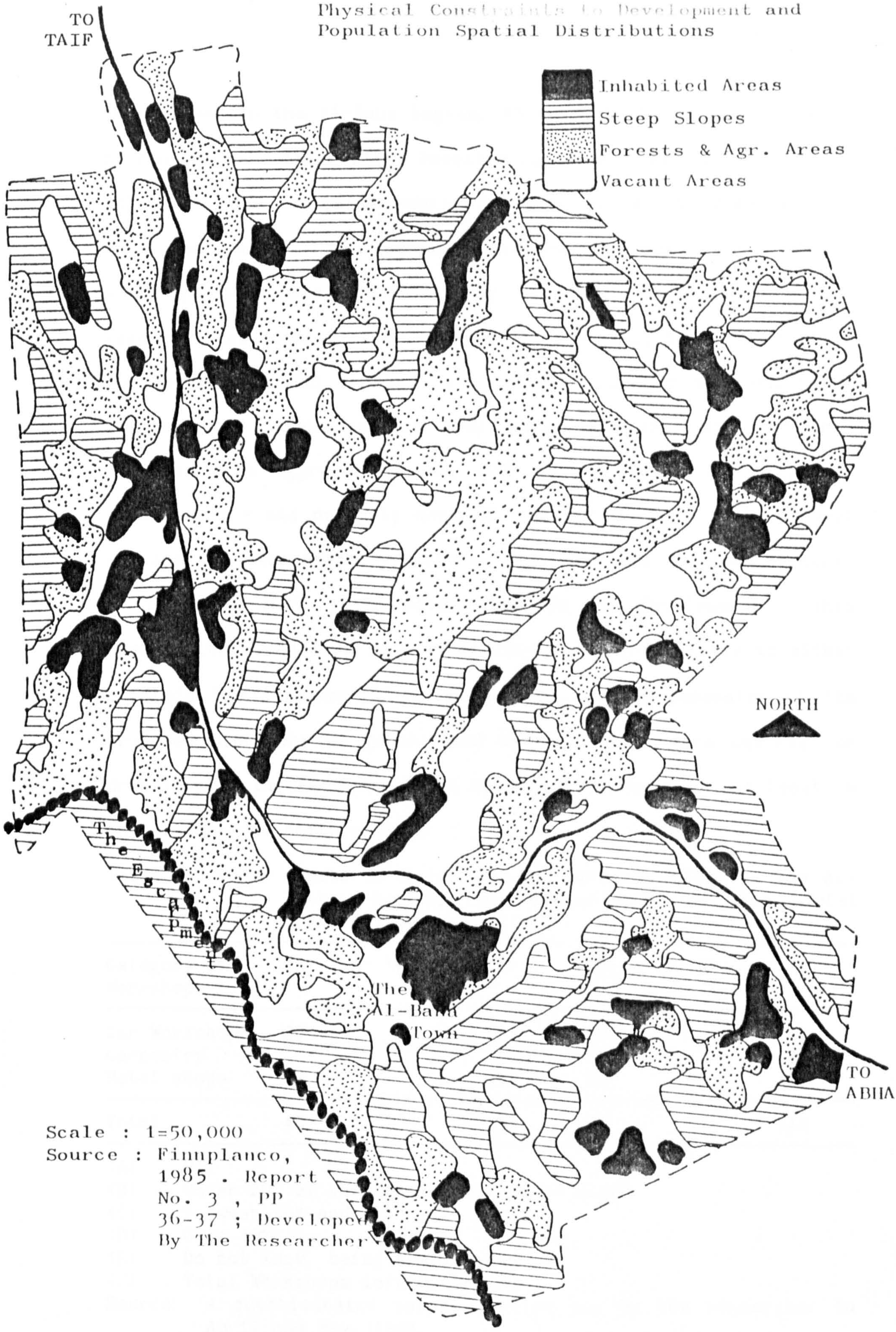
8.114 For industries to enjoy the advantages of economics of scale (e.g. roles of propulsive industries and functional linkages), they require to be closely concentrated. Furthermore, they require extensive assembled-lands for future expansion that may accomodate any degree of success in stimulating mechanisms of polarisation and/or creation of enterprises from scratch. Therefore, land forms seem to be a constraint to implementation and/or expansion of growth centres, as industrial and development service centres in Al-Baha.

Analysis of the Questionnaires' Findings

8.115 The noticeable influence of the sites' initial levelling costs on the attitudes of the Al-Baha workshops and factories towards not moving to the proposed areas of concentrations was demonstrated in Chapter Six. In order for a high number of the 149 workshops interviewed in the Al-Baha region to establish along both sides of the Taif-Abha inter-regional road, they accepted the opportunity costs associated with initial levelling of sites.

8.116 According to Table Fourteen, of the aggregate 149 workshops

Figure Four : The Al-Baha Town's Province ; Natural Features, Physical Constraints to Development and Population Spatial Distributions



Scale : 1=50,000
Source : Finnplanco, 1985 . Report No. 3 , PP 36-37 ; Developed By The Researcher

interviewed in the Al-Baha Region, 46 (or 31%) have initially paid nothing to have their sites levelled for development, 33 (or 22%) do not know, due to being mostly tenants, while the remaining 70 workshops (or 47%) paid something towards the cost. Of those 70 workshops who paid something, 13 (or 19%) paid 20% of their aggregate development costs in order to initially level their sites for development, 35 (or 50%) paid between 20% and 40%, while the remaining 22 workshops (or 31%) paid more than 40% for this purpose. In aggregate terms, 47% of the total 149 workshops interviewed – and probably most of the rented ones – paid between 20% and 40% (or probably more) of their initial development costs in order to have their sites levelled for development. This reveals that land form is a vital factor which is likely to either preclude the implementation, functioning and/or expansion of the proposed hierarchy of growth and development service centres, or dramatically increase the costs associated with them, at least in the Al-Baha and Assir regions.

Table Fourteen: Costs of Levelling the Workshop Sites in the Al-Baha Region, as Percentages of the Total Development Costs.

Category of Workshops	(A)	(B)	(C)	(D)	(E)	(F)
Car Workshops	23	3	19	10	11	66
Carpentry	6	3	5	2	7	23
Metal shops	17	7	11	10	15	60
Total	46	13	35	22	33	149

(A) Nil
(B) Under 20% of the total development costs
(C) Between 20% and 40%
(D) Over 40%
(E) Do not know, being mostly tenants
(F) Total Workshops interviewed

Source: A questionnaire survey carried out by the researcher in April and May, 1988.

8.117 Another constraint to the implementation and functioning of

the proposd centres in Al-Baha, and probably in all the Saudi rural areas, is associated with the nature of land ownerships. The next sub-section will deal with this issue.

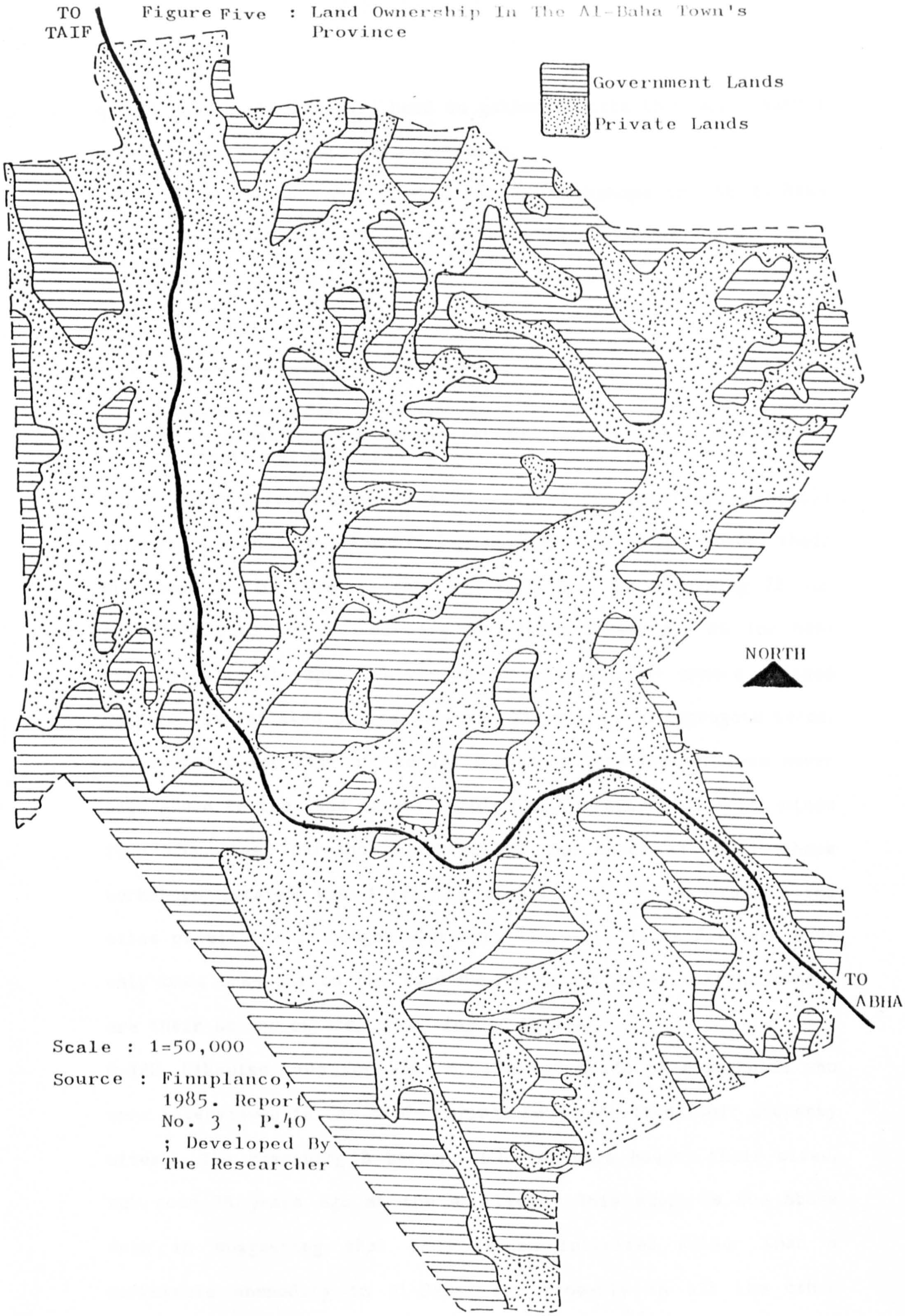
LAND OWNERSHIPS

8.118 Cloke (1979 and 1983) argued that policies of concentrations can be best applied only in cases when building new settlements from scratch. In so arguing, Cloke probably appreciated the difficulties that land ownerships, land forms and other similar settlement factors may represent in face of implementation and proper functioning of extreme concentrations.

8.119 Figure Five represents the pattern of land ownership in the Al-Baha Town Province. Representativeness of this part to land ownership patterns in the whole Al-Baha Region is assumed. Figure Five covers the same area covered previously by Figure Four, in order to provide integrated illustrations and arguments. It shows that almost 45% of land in the Al-Baha Town Province is owned by government, while the remaining 55% is privately owned. However, superimposing Figures Four and Five should convey the message that the government's lands are mostly forests, steep slopes and hilltops (i.e. uninhabitable). Therefore, in order for the proposed hierarchy of growth and development service centres to be implemented in accessible and extensive places, privately owned lands should first be assembled. But, are private landowners likely to sell their lands?

8.120 Land can be viewed as an inherited rather than a marketable commodity in Saudi rural areas, where supply tends to be at all times much less than demand. However, the researcher's field

Figure Five : Land Ownership In The Al-Baha Town's Province



Scale : 1=50,000

Source : Finnplanco, 1985. Report No. 3 , P.40 ; Developed By The Researcher

questionnaire studies paid heed to gathering data that would enable accepting or rejecting this hypothesis.

Table Fifteen: Ownership Status of the Workshops in the Al-Baha Region.

Category	Inherited	Bought	Rented	Totals
Car workshops	30	22	14	66
Carpentry shops	11	5	7	23
Metal shops	31	12	17	60
Totals	72	39	38	149

Source: A questionnaire survey carried out by the researcher in April and May, 1988.

8.121 Table Fifteen shows clearly that, of the total 149 workshops interviewed in the Al-Baha Region, 38 (or 25%) rented their premises, 39 (or 26%) bought theirs, while the remaining 72 (or 48%) inherited theirs. Of the 38 rented workshops, 26 (or 68%) have actually attempted to buy their premises, but owners refused despite the inflated prices offered. Therefore, in aggregate terms, sites of 110 (or 74%) of the 149 workshops interviewed, have never been added to the land market supply in the region, at least since 1975 when the Taif-Abha road (along the sides of which these workshops locate) was initially constructed. Furthermore, the sites of all the 39 bought workshops (refer to Table Fifteen) have only once been put on the land supply market (i.e. current owners are their second owners, according to them).

8.122 Likewise, 108 (or 93%) of the 116 heads of households who were interviewed in the study village have inherited their property sites. The remaining 8 persons (or 7%) have bought their sites, but some 25 years ago at the earliest. This supports the above data in suggesting that land is an inherited rather than a marketable commodity in Al-Baha, and probably in all the other Saudi rural areas. But, these data refer to the past. The

question is: Are the Al-Baha inhabitants willing to sell lands at the present time?

8.123 The above question was asked of the 116 heads of households who were interviewed in the study village within Al-Baha. In order to predict their attitudes to the future, their answers are categorised according to their ages and educational status, in Tables Sixteen and Seventeen respectively. This approach to categorisation was used for the same justification when examining the same population's attitudes towards industrialisation as a whole, and willingness to move to the proposed areas of concentrations, in Chapters Six and Seven respectively.

Table Sixteen: Willingness to Sell Pieces of Land in Qezzanah, the Study Village: Answers Categorised by Age-Groups.

Age-Groups	Willingness to sell a piece of land		
(years)	Willing	Not willing	Totals
Under 20	0	2	2
21-35	0	17	17
36-50	2	38	40
51+	3	54	57
Totals	5	111	116

Source: A questionnaire survey carried out by the researcher in April and May, 1988.

8.124 Of the 116 heads of households interviewed in Qezzanah – the study village within Al-Baha, 111 (or 96%) are not willing to sell pieces of their land to anyone else, whatever the level of price offered (refer to Table Sixteen). They mostly attribute their attitudes to the intrinsic values that their lands have due to being inherited from their fathers. They mostly perceive selling lands as being a shameful action. Rather, they mostly believe that these lands should be preserved for their sons as they were preserved for them by their fathers. However, attitudes towards

selling lands do not differ significantly due to age differences, as Table Sixteen demonstrates vividly. But, do these attitudes differ rather due to the differences in the respondents educational status?

8.125 Regarding the above question, Table Seventeen is self-explanatory in demonstrating that the attitudes of the population interviewed towards their willingness to sell lands do not differ significantly due to differences in their educational status. Assuming the representativeness of the Qezzanah village to the rest of the Al-Baha region, this suggests that the unwillingness of the Al-Baha population to sell lands is not likely to be mitigated in line with possible future enhancements in the overall educational status of the inhabitants. In aggregate terms, Tables Sixteen and Seventeen together suggest that attitudes of the Al-Baha (probably) better educated future generations towards selling lands will not be significantly any different from the attitudes of the current generations.

Table Seventeen: Willingness to sell Pieces of Land in Qezzanah, the Study Village: Answers Categorised by Educational Status.

Educational Status	Willingness to sell a piece of land: Willing	Not Willing	Total
Highly Educated	1	4	5
Fairly Educated	1	24	25
Educated	0	20	20
Illiterate	3	63	66
Totals	5	111	116

Notice: For meanings of the educational status terminologies, refer to Table Fourteen, Chapter Six.
Source: A questionnaire survey carried out by the researcher in April and May, 1988.

8.126 Compulsory purchase as a method of converting private lands

into public ownership is not used in Saudi Arabia, except for essential road construction or upgrading. As illustrated above, most of the government lands in Al-Baha are uninhabitable, inaccessible or not extensive. In light of such land form and land ownership conditions, implementation and proper functioning of the proposed hierarchy of growth and development service centres will be met with dramatic increases in initial and/or running costs in many rural areas.

CONCLUDING PRINCIPAL POINTS

8.127 To sum up, the important studies of various settlement issues in the context of this chapter suggest a number of principal points, as follows:

i *Existence and perpetuity of regional economic disparities seems to be inevitable, but can be made less acute with effctive locational policies. Therefore, policies should realistically expect to minimise regional disparities rather than completely overcome them. The more attention given to minimising regional disparities, the more this may be at the expense of the national economy;;*

ii *As argued by the Neo-Classical Model, complete regional equality in terms of per-capita incomes can only be achieved under the umbrella of complete regional equalities in terms of all factors of production. Therefore, per-capita income is a principal measure of how regional disparities in a country do deviate from perfect equalities in a wide range of spatio-economic conditions. There are significant regional disparities in per-capita income in Saudi Arabia, which have led to the national plan arguing for applying*

policies that could minimise such disparities, particularly in a country that pays heed to achieving reasonable social equity measures in light of the Islamic Shariah Principles;

iii *Hierarchical centres are a concept that pass over differences between market areas of services and location of industries and other economic activities (e.g. tourism). It might be expected to give good results only in the case of regulating distribution of ordinary services (health, education) and goods (shops), in the light of their threshold and range measures as the only locational regulatory concepts, across a homogeneous region that is dominated by traditional market towns. The case is different in Saudi Arabia, at least from two perspectives: first, Saudi settlements are not all market towns nor do they have similar or comparable functions and/or factors of growth, and second, the proposed hierarchy of growth and development service centres throughout Saudi Arabia does not aim at primarily distributing ordinary services (health, education) and goods (shops), but rather at stimulating development of local economic activities and potentials and at providing spatial basis for distribution of development services (agricultural banks, ministry offices) and other economic activities. These conditions cast doubt on the applicability of the concept of hierarchical centres that was initiated in areas with different features for different purposes, for stimulating economic development throughout Saudi Arabia;*

iv *Setting aside discussion of the ranking criteria used, the selected centres that have similar ranks (say regional, 1st*

order) have significantly different economic functions. The idea behind the hierarchy of growth and development service centre is – according to the Third Plan – to have centres promoted or downgraded in the hierarchy in light of their comparative progress. Comparative assessment of centres that have the same ranks but different functions is likely to be biased towards those measuring centres' contribution to GDP. Therefore, a hierarchy of growth and development service centres is likely to relegate settlement, social, and institutional objectives when assessing, and accordingly promoting, centres. The non-monetary success of centres is likely to be omitted by such assessment of different functions;

v *There is little functional logic in having manufacturing industries and/or other economic activities hierarchically structured across a wide area. They have locational requirements that significantly differ from those of ordinary services (health, education, shops). Furthermore, they may require to import raw materials and export final products from and to areas that locate outside spatial jurisdictions of the centres in which they locate. This is quite different from the hierarchy of centres that regulates distribution of ordinary services and goods in areas with only homogeneous market towns and free-market locational conditions, where each service and/or product has a market area at the boundary of which the demand for it approaches zero;*

vi *For the policy to better achieve the objectives of minimising regional disparities, stimulating development of*

local economic activities and providing for work-to-workers, dispersal of the development services (agricultural banks, ministry offices) at the intra-regional level would be a promising approach: such services are large employers and significant stimulators of spatio-economic development. This would help to avoid employing mechanisms of cumulative causations in favour of centres at the expense of other remote and backward areas, particularly in the backward rural regions which the policy is proposed to help and in which transportation linkages are not readily available.

vii *Identification of development areas relied heavily on the spatial jurisdictions of the existing administrative (not functional) regions;*

viii *The applied selection criteria omitted assessing the potential for manufacturing industries to establish and keep functioning, particularly in backward areas. However, Chapter Ten will aggregate the demonstrated facts regarding viability of manufacturing industries in rural Saudi Arabia; and*

ix *The difficulties demonstrated with land ownerships and forms indicate genuine constraints to implementation and/or proper functioning of the proposed hierarchy of growth and development service centres throughout the Saudi backward regions in particular.*

8.128 Having viewed the Saudi policy from a settlement perspective, Chapter Nine which follows will illustrate the aims and possible implications of the policy from an institutional point of view, from which the policy is deemed capable of exerting positive impacts.

CHAPTER NINE: INSTITUTIONAL ISSUES

9.01 *This chapter aims at describing the structure and functions of governmental institutions in Saudi Arabia, with special attention to the planning institutions, in order to underline the institutional factors of success and/or failure that the proposed hierarchy of growth and development service centres is likely to be faced with. It aims also at facilitating any later proposals that may need to be made regarding institutional refinements in Saudi Arabia. In order to achieve these two objectives, this chapter will adopt several steps. First, an overview will be provided to illustrate both the historical institutional refinements and the existing institutional structure in Saudi Arabia. Second, particular attention will be given to reading about the planning institutions at both national and local levels and about the extents to which the system stimulates co-ordination and integration of planning functions in Saudi Arabia. Third, institutional justifications of the proposed hierarchy of centres will then be quoted from relevant governmental publications. Fourth, the need for institutional refinements in Saudi Arabia will be discussed. Finally, a brief reference will be made to the structure and functions of local government in Scotland, where institutional reforms were made at times of active regional growth area policy: a similar stage to the current one in Saudi Arabia. Further justifications of the relevance of Scotland will be put forward later in this Chapter.*

OVERVIEW

A BRIEF HISTORICAL BACKGROUND

9.02 In 1959, the Saudi Government made the first step towards formal planning by establishing the Economic Development Committee. Two years later, this committee was replaced by the Supreme Planning Board, which was chaired by the Prime Minister (or his Deputy). Ministers of Finance, Petroleum, Communication, Health and Agriculture were members of the above-mentioned board. Setting aside its detailed tasks, the main reason for the replacement of the initial Economic Development Committee was:

> "The Committee had not functioned successfully" (Khashoggi, 1979, p. 148).

9.03 The later established Supreme Planning Board faced difficulties in providing for effective national planning. According to Khashoggi (1979), that was due to both lack of reliable statistical information and a shortage of technically-trained economists. Khashoggi (1979, p. 149) quoted from the Economic Consultants, Dr Eden and Dr Snavely, who said:

> "The Supreme Planning Board was not well situated administratively, nor was it adequately staffed on the decision-making level ... In practice, the Supreme Planning Board seems to have functioned as a sub-committee of the Council of Ministers, devoting most of its time to reviewing budget requests of various ministries ... This essentially budget-department function was exercised at the expense of planning functions."

9.04 The Central Planning Organization (CPO) was established by Royal Decree No. 19, dated 17 Ramadan, 1384 A.H. (i.e. 1965 A.D.) to replace the Supreme Planning Board in handling national economic planning tasks. According to both Ismail (1979) and Al-Farsy (1986), functions of the CPO were specified in the Council of Ministers' Resolution No. 430, dated 12 Ramadan 1384 A.H. (i,e,

1965 A.D.) as follows:

i. To prepare a periodic economic report on the Kingdom, containing analysis of progress and prospective developments;

ii. To formulate economic development plans, provided that the first plan is a five-year one and is approved by the Council of Ministers prior to being put into effect;

iii. To estimate total funds required for the implementation of the plans;

iv. To assist various ministries and government agencies in their economic planning tasks; and

v. To supply the King with the technical advice needed, whenever it was required.

Therefore, the CPO was established primarily to carry the burdens of guiding the whole national economic planning and, accordingly, of advising on the allocation of national funds.

9.05 The CPO's main achievements, however, were:

> "In the past two years the Central Planning Organization, with the support and co-operation of other ministries and agencies, has produced an Economic Report and this Development Plan" (CPO, First Plan, 1970-1975, p. 49).

With reference to the above listed functions of the CPO, their report should have included assessment of the prospective strategic developments in Saudi Arabia. Preparing that report had met with difficulties due to the scarcity of data available at that time; a factor that led, among other things, to the failure of the preceding Economic Development Committee and Supreme Planning Board.

9.06 Due to the rapid and extensive developments witnessed, the Saudi Arabian Government had to undergo extensive ministerial

reforms over the mid and late 1970s. That was necessary in order to get the Saudi institutional system adapted to the spontaneously increased tasks of development, which were merely impacts of employing oil revenues in developing the whole nation. According to the MOP (3rd Plan, 1980-1985, pp. 61-62), those major reforms were as follows:

i Separation of the former Ministry of Commerce and Industry into two agencies: the Ministry of Commerce and the Ministry of Industry and Electricity;

ii The Establishment of the Ministries of Municipal and Rural Affairs (MOMRA); Higher Education; Public Housing; Posts, Telephones and Telegraph; and Planning (MOP);

iii The Saudi Arabian Basic Industries Corporation (SABIC) was established by Royal Decree of 13/9/1396 A.H. (i.e. 1976 A.D.), with responsibility for undertaking the establishment and operation of hydrocarbon-based industries and any other strategic and viable industries that the private sector might be unable to establish;

iv The Royal Commission for Jubail and Yanbu was established on 16/6/1395 A.H. (i.e. 1975 A.D.), for the task of laying down the basic infrastructures needed for transforming the two cities of Jubail and Yanbu into industrial areas (refer to Chapter Five); and

v The Saudi Ports Authority was established in Ramadan 1396 A.H. (i.e. 1976 A.D.) with the objective of creating sufficient unloading capacity in the Kingdom's ports to absorb the demand for unloading facilities during the anticipated import booms;

9.07 Other ministries (e.g. Finance; Cummunication; Petroleum;

Agriculture; Health; Pilgrimage; Justice; Interior; ... etc) did not undergo any noticeable reforms. However, besides expanding and elevating some institutions, the above-mentioned reforms initiated at least six new ministries.

> "During the Second Plan (1975-1980), the government administrative structure was extensively modified, so that by the end of the Second Plan there was a total of 20 ministries ... in comparison to 14 ministries in 1975" (MOP, 3rd Plan, 1980-1985, p. 61).

9.08 It is important for our purpose to underline that the above-mentioned institutional reforms led, amongst other things, to the elevation of the Central Planning Organization (CPO) to a ministry: that is today's Ministry of Planning (MOP). That elevation was mainly for:

> "Ensuring that national planning functions were supported and encouraged by the highest-level policy-makers" (Khashoggi, 1979, p. 151).

A second point to underline is that those reforms instigated the Ministry of Municipal and Rural Affairs (MOMRA), to replace the Deputy Ministry of the Interior for Muncipal Affairs (which was initially established in 1965) in handling physical planning tasks, at regional and local levels. Further explanation for the tasks of this institution will be considered at a later stage in this Chapter.

9.09 Having briefly reviewed the comparatively recent institutional history of Saudi Arabia, the next section will illustrate and describe the existing Saudi institutional system, mainly in terms of roles and functions. This will prelude later analytical assessment of the potential ability of the system to provide for co-ordinated planning throughout the Kingdom.

STRUCTURE AND FUNCTIONS OF THE OVERALL INSTITUTIONAL SYSTEM IN SAUDI ARABIA: A BRIEF REVIEW

9.10 Al-Farsy (1986, p. 99) wrote:

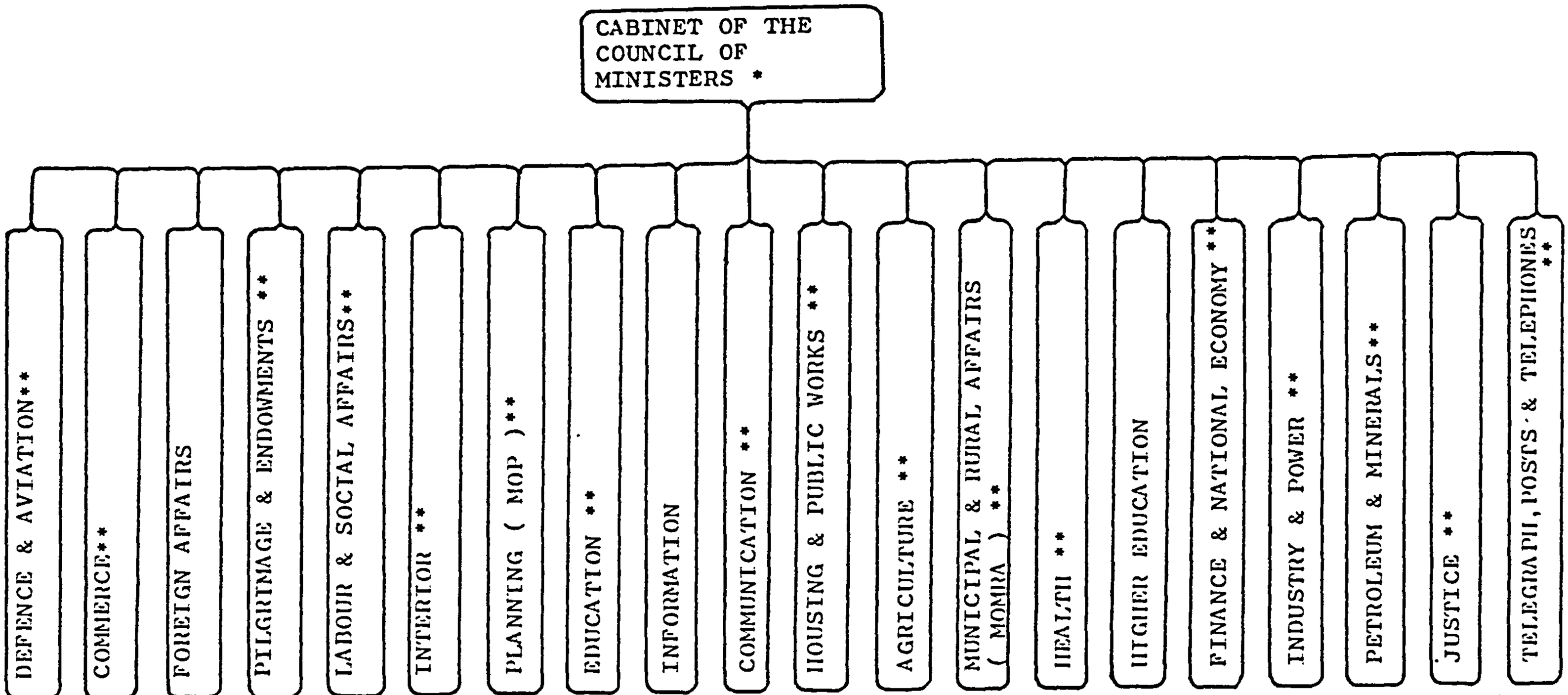
> "Despite its relatively recent origin, the Saudi Council of Ministers emerged in 1953 as the natural political outcome of Ibn Saud's final consolidation of power and unity over the young Kingdom."

Figure One illustrates the structure of institutions in Saudi Arabia, with the Council of Ministers at the top of the pyramid. In order to briefly define the roles of the whole system, the roles of key units in the system will be outlined. In so doing, the roles of the King, Council of Ministers, Ministers and Deputy Ministers will be individually highlighted. Although not illustrated by Figure One, the roles of the Amires (i.e. local governors) will be briefly described.

9.11 The King of Saudi Arabia is a Prime Minister. Accordingly, he directs general internal and external policies of the whole country in light of the principles of Islamic Shariah. He chairs meetings of the Council of Ministers, endorses decisions passed by the Council, discusses matters related to the preparation and approval of the national development plans and annual budgets and endorses them, and acts to create a spirit of co-operation between the high number of ministries represented by their Ministers in the Council.

9.12 The Council of Ministers is the highest authority in the country. It holds authority over all social, economic and political affairs of the country, primarily being represented by Ministers and chaired by the King or by his Deputy Minister. The Royal Decree that regulates the Council's duty was first initiated by King Abdulaziz. It put the Council in charge of vast responsibilities concerning the country's internal and external

Figure One : The Saudi Institutional (i.e. Ministerial) Structure



* Chaired by the King as a president, the Crown Prince as a first Deputy President and H.R.H. the second Deputy President. The Ministers are members of the Council. Besides many fundamental responsibilities, the Council Cabinet has direct supervision over the Royal Commision For Jubail and Yanbu and the Ports Authority.

** With regional and local obligations : For Functions , Consult Figure Two

Source : Al-Farsy , 1986. P. 103

economic, social and political affairs. Among these vast responsibilities are, according to Al-Farsy (1986):

i Adjusting, updating and/or initiating internal and external policies of the nation;

ii Approving annual budgets and balance sheets of the country;

iii Formulating stock companies and authorising foreign companies to operate within the Kingdom; and

iv Making decisions about public affairs of the country.

9.13 The Council of Ministers has also all the organisation and executive powers to intervene in any matter that occurred or was to occur within the country. However, it is important to notice that the King and the whole Council of Ministers view themselves as being responsible to God rather than having absolute superior power over the whole Moslem country of Saudi Arabia. God's book (Kuran) provides the main principles that they should follow in deciding upon affairs of all people living within Saudi Arabia - both Moslems and non-Moslems. In a great many matters, the King and his Ministers make their decisions in the light of the Moslem Judge's opinions, particularly in matters which concern social affairs. In other matters, they make certain that their decisions do not contradict the Islamic Shariah Principles: a factor that contributes generously in aiding the Kingdom to obtain respectful friendships and relations with almost all the Islamic countries, even prior to the exploitation of oil.

9.14 Some of the institutional executive actions that the Council of Ministers used to occasionally carry out are as follows:-

i Establish or terminate any governmental agency;

ii Design and approve administrative regulations which local institutions should follow in handling matters at the

outlying local level; and

iii Establish occasional committees for investigating the performance of work in governmental agencies.

Therefore, the Council of Ministers approves and initiates policies and strategies as well as occasionally inspecting whether actual works are directed towards achieving national goals and objectives.

9.15 The third key position in the Saudi institutional structure (see Figure One) is represented by the Ministers themselves. They are directly responsible to the King. They represent their ministries in the Council of Ministers. Through them, the directions of the Council of Ministers are translated into tangible actions. Through them also, the King and the whole Council of Ministers become acquainted with all matters in the whole country at any point in time. However, it appears that each minister is responsible for at least three matters:

i Developing and executing policies within his own ministry. These policies should be in line with the national strategies, goals and directions of the Council of Ministers. All these usually become embodied in or formulated in light of the Five-Year Development Plans;

ii Forming occasional committees to evaluate the performance of his ministry's departments and branch offices, and to monitor matters accordingly; and

iii Reporting to the Council of Ministers in general, and to the King in particular, regularly and spontaneously (e.g. when asked to do so by the Council or by the King).

9.16 The Deputy Ministers represent the fourth highest key position in the Saudi institutional structure (see Figure One). They handle the affairs of the ministries of which they are deputy

ministers, and advise and propose to the ministers policies and plans for handling workloads. Each Deputy Minister has his aims, towards which he directs the actions of the departments and branch offices and the preparation of annual plans and budgets. He regularly and/or frequently reports to the minister to whom he is responsible.

9.17 What about the fifth key position in the hierarchy of the Saudi institutional structure? The Ministry of the Interior is primarily responsible for the administration of internal affairs of local areas and, therefore, has a high number of Imarates (i.e. princehoods) which are spread throughout the country. These Imarates represent the Saudi Local Government, through which security matters are either solved locally or passed to higher Amires (i.e. governors), up to the Minister of the Interior, or probably to the King in severe, extreme, and rare cases. As mentioned above, the Amires are hierarchically distributed throughout the country, both physically and functionally. In the Al-Baha Region, for example, there are thirty-one Sub-Emirates which are headed by thirty-one Amires. All of them are directly responsible to the Amire of the entire Al-Baha Region, who is responsible to the Minister of the Interior. The system is the same in all the other thirteen administrative regions in the Kingdom.

9.18 Likewise, at least 17 of the other 20 ministries (see Figures One and Two) have their administrative offices spread throughout the country. They are responsible for many development tasks: consult Figure Two in this Chapter and Figure Three in Chapter Ten. In principle, these ministries - particularly ones with regional duties - should co-ordinate and co-operate with each other in order to bring about integrated spacio-economic

developments in local areas. The question as far as development planning is concerned is: Does the whole system's structure stimulate and provide for effective co-ordination and co-operation at local levels? This issue will be briefly discussed in a later part of the next section.

Figure Two: Main Functions of the Ministries that have Regional and Local Development and/or other Obligations

MINISTRY	FUNCTIONS
Ministry of Agriculture	It – with the approval of the King – grants arable land, provides loans to farmers for the purchase of machinery (through the SAAB, which is administratively under the Ministry of Finance); advises farmers on the proper techniques of farming; builds dams; and grows and irrigates artificial forests (greenery). It has regional and local offices spread throughout the country
Ministry of Commerce	It licences enterprises engaged in internal and external trade and, adhering to the programme of 'consumer protection', controls prices. It is represented in almost all the 14 regions in the country by the offices of the Chamber of Trade, which have no district (or local) branch offices.
Ministry of Education	It builds maintains and operates schools up to university entrance level, throughout the country. It has regional and local administrative offices, which are responsible for similar tasks in smaller geographical areas.
Ministry of Finance and National Economy	It regulates – together with the MOP – the annual budgeting procedures; controls the central monetary fund, which is the main function of the work of national banks; initiates and adjusts the policies of tarrifs; and administers the public loan banks (e.g. REDF, SAAB, SIDF). It has regional but no district (or local) administrative offices. The loan offices are there at regional and local levels, in all the Saudi

	administrative regions
Ministry of Health	It builds, maintains and operates public hospitals; and licences private hospitals and pharmacies throughout the country. It has regional but no district (or local) offices.
Ministry of Industry and Electricity	It licences factories; builds and maintains industrial cities; and provides electrical services to the whole country. It has administrative offices in the main industrial cities, e.g. Jeddah, (refer to Chapters Four and Five). Apart from that, it is represented in all regions by electrical power stations, and by the SIDF: the latter falls administratively under the Ministry of Finance.
Ministry of the Interior	Responsible for security matters. Many institutions fall under its administrative supervision: consult Figure Three, Chapter Ten.
Ministry of Justice	Responsible for the application and enforcement of Islamic Shariah laws in settling social disputes. The Ministry is represented in Riyadh by the Supreme Court, and in each region by regional and local courts.
Ministry of Labour and Social Affairs	It directs employees to public employment; formulates and applies rules for settling disputes in public works; and administers the social welfare offices which distribute social benefits to the poor. It is represented in each region by a regional administrative office, while its district (or local) offices only distribute social benefits.
MOMRA and MOP	Will be thoroughly explained in the next sections.
Ministry of Pilgrimage and Endowments	It plans and executes the pilgrimage development programmes - in co-operation with other institutions (e.g. Makkah and Madina municipalities); builds and maintains public Mosques; and licences and maintains the privately-built Mosques throughout the country. It has regional but no local administrative offices, in all the Saudi administrative regions.

Ministry of Public Works and Housing	It maintains public housing projects, to alleviate the housing shortage of the mid 1970s; and implements and maintains the premises of the administrative offices of other ministries. It has regional (but no district or local) offices in all the Saudi administrative regions.
Ministry of Telegraphs Posts and Telephones	It issues and collects payments for telephone bills; provides public (coin) telephones; builds, maintains and operates post offices; and implements and maintains communication systems throughout the country. It is represented in each region by regional and local administrative offices.
Ministry of Transportation	It builds and maintains major inter- and intra-city roads; builds and maintains bridges; organises and licences freight transport; and builds and maintains sea-ports (in some cases). It has regional (but no local) administrative offices in almost all the Saudi regions.

Notes;

- Each ministry's regional and district (or local) offices execute the plans (i.e. development programmes) prepared by national headquarters, in Riyadh.
- Most of those ministry offices are administrative (rather than services in themselves) which provide and maintain public services: an important note for later utilisation.
- For complementary information consult Figure Three, Chapter Ten.

PLANNING INSTITUTIONS AND FUNCTIONS IN SAUDI ARABIA

PLANNING AT NATIONAL LEVEL

9.19 As described above, over the period 1959-1975, the Saudi national planning machinery was reformed three times. The early Economic Development Committee was replaced in 1961 by the Supreme Planning Board, which was replaced in 1965 by the Central Planning Organisation (CPO), which was elevated in 1975 to the present Ministry of Planning (MOP). Three reforms of a national planning machinery within a period of 16 years should say something of the attention given by the Saudi Government to adapting the system to

the rapid developments and expanded planning obligations exerted by the impacts of the flourishing oil markets during that period.

9.20 According to Ismail (1979), The MOP was given the following responsibilities:

i Preparing periodical reports on various aspects of the country's economy;

ii Formulating economic and social development plans, in accordance with the needs and requirements of the various ministries;

iii Following-up planned projects and reporting to the Council of Ministers on each stage of Plan executions;

iv Estimating financial outlays for projects approved or requiring approval by the Council of Ministers; and

v Conducting economic studies and making necessary recommendations.

The MOP has other duties, but those above are the main and most obvious. However, it appears that these duties of the MOP are not significantly different from those given to the preceding CPO (refer to P. 9.04). Nevertheless, the rapidly changing conditions in light of the sudden developments of the late-1970s in Saudi Arabia made satisfying the above responsibilities, and properly mastering the economic development of the country, a more demanding task with the MOP than it had been with the CPO.

9.21 Therefore, the MOP is there to play its role as national machinery for economic planning. The Stanford Research Group (SRG) is a foreign advisory group which worked with the CPO from 1967, and helped it in preparing and supervising the implementation of the First Development Plan (1970-1975). It continued working with the later MOP and has helped it – up till now – in preparing and

supervising implementation of the Second, Third and Fourth Development Plans (1975-1990).

> "The role of the Stanford Research Group within the Ministry may be described as follows:-
>
> 1 - To assist in the formulation of the country's development plans under the direction of the Ministry;
>
> 2 - To assist the Ministry in recruiting the proper personnel needed for its staff in a direct manner - i.e. direct contracting on behalf of the Ministry;
>
> 3 - To assist the Ministry in its follow-up and evaluation of the various projects and plans; and
>
> 4 - To render advice and conduct research on specific subjects when asked to do so by the Ministry". (Al-Farsy, 1986, p. 82).

9.22 The administrative structure of the MOP includes the Minister at the top of the pyramid, a single Deputy Minister, and two Assistant Deputy Ministers (see Figure Three). One of the Assistant Deputy Ministers is concerned with sectoral planning (responsible for such sectors of planning as industry, trade, commerce, infrastructures and social services) and the other with national planning (responsible for such sectors of planning as follow-up, research, manpower and regional planning). In aggregate terms, the whole MOP is responsible for sectoral-economic planning at the national level. The two Deputy Ministries of the MOP are supposed to work with other Ministries in order to formulate the national sectoral-economic policies and plans, and then to have the programmes and aims of all ministries co-ordinated and adjusted towards fulfilling the national goals. However, the MOP should - at least in principle - maintain close contacts with all other ministries in order to have its previously listed responsibilities satisfactorily fulfilled.

9.23 In practice, Ministries like those of Petroleum and Finance have a strong voice in shaping the overall national economic goals. The MOP finds it essential to establish two-way flows of consultations with each of these two ministries in particular, so that the prepared national plans do not exceed the resources available, nor do they endanger the fiscal stability of the country.

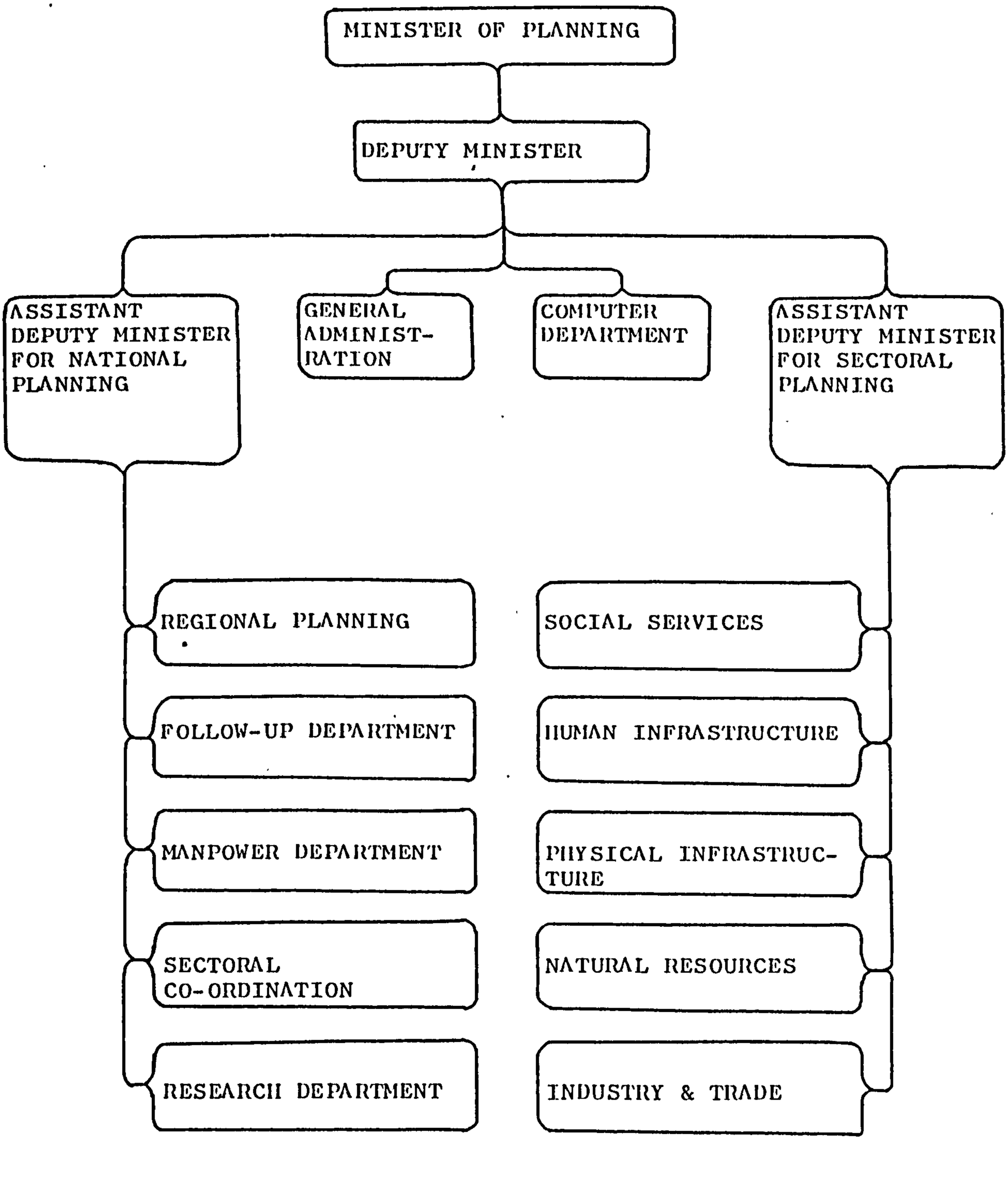
9.24 However, in order for the MOP to achieve its goals, it developed a set of three procedural steps. They are, according to Khashoggi (1979), as follows:-

i The Ministry analyses the state of the economy and publishes its findings in a report;

ii On the basis of this report, and in co-operation with the other ministries which handle various obligations throughout the country, the Ministry formulates the National Development Goals. These goals are usually submitted to the Council of Ministers for approval. If approved, they then become a foundation for a national development strategy; and

iii Under the supervision of the MOP, such strategy is transformed by various governmental agencies into planned action programmes. The MOP then assembles and edits all the agencies' proposals and publishes them in a single five-year development plan, which is submitted to the King and the Council of Ministers for final assessment and endorsement. If endorsed by the King, the plan can then be put into action. Besides this, the MOP is supposed to help other ministries in phasing their five-year tasks on an annual basis. The Ministry is also supposed to help ministries in preparing their annual budgets and in supervising the

Figure Three : Administrative Structure of the Ministry of Planning (MOP)



Source : Ismail D. , 1979 , P. 59 and Al-Farsy F. , 1986 , P. 81.

implementation of their programmes in light of national goals and strategic programmes.

9.25 From this brief, it appears that the Five-Year Plans and the other reports which usually are prepared by the MOP are of a sectoral economic nature. Furthermore, physically and functionally, the MOP primarily operates at the national level. Unlike most of the other ministries that have regional and local development obligations, the MOP does not have offices spread throughout the country. The effects of this on having national goals and strategies efficiently implemented on the ground will be explored in a later part of this section. However, having illustrated the national planning machinery, the next sub-section will proceed to explore the local planning machinery in Saudi Arabia.

PLANNING AT LOCAL LEVEL

9.26 Planning at local level means, in this instance, regional and town planning. As previously described, the Economic Development Committee was the first institution to be established in 1959 to handle sectoral-economic planning matters at the Saudi national level. On the other hand, it was not until 1965 that the Deputy Ministry of the Interior for Municipal Affairs was established to deal with physical planning at local and regional levels in Saudi Arabia. Therefore, the Saudi physical planning (or town and regional planning) is younger than the economic one.

9.27 As elaborated upon above, the 1975 institutional reforms that took place in Saudi Arabia initiated the Ministry of Municipal and Rural Affairs (MOMRA) to replace the original Deputy Ministry of the Interior for Municipal Affairs. MOMRA was created to:

"1 – Provide the best means for expansion and development of the Kingdom's towns and villages;
2 – Promote local services and utilities; and
3 – Plan future urban growth." (Khashoggi, 1979, p. 154).

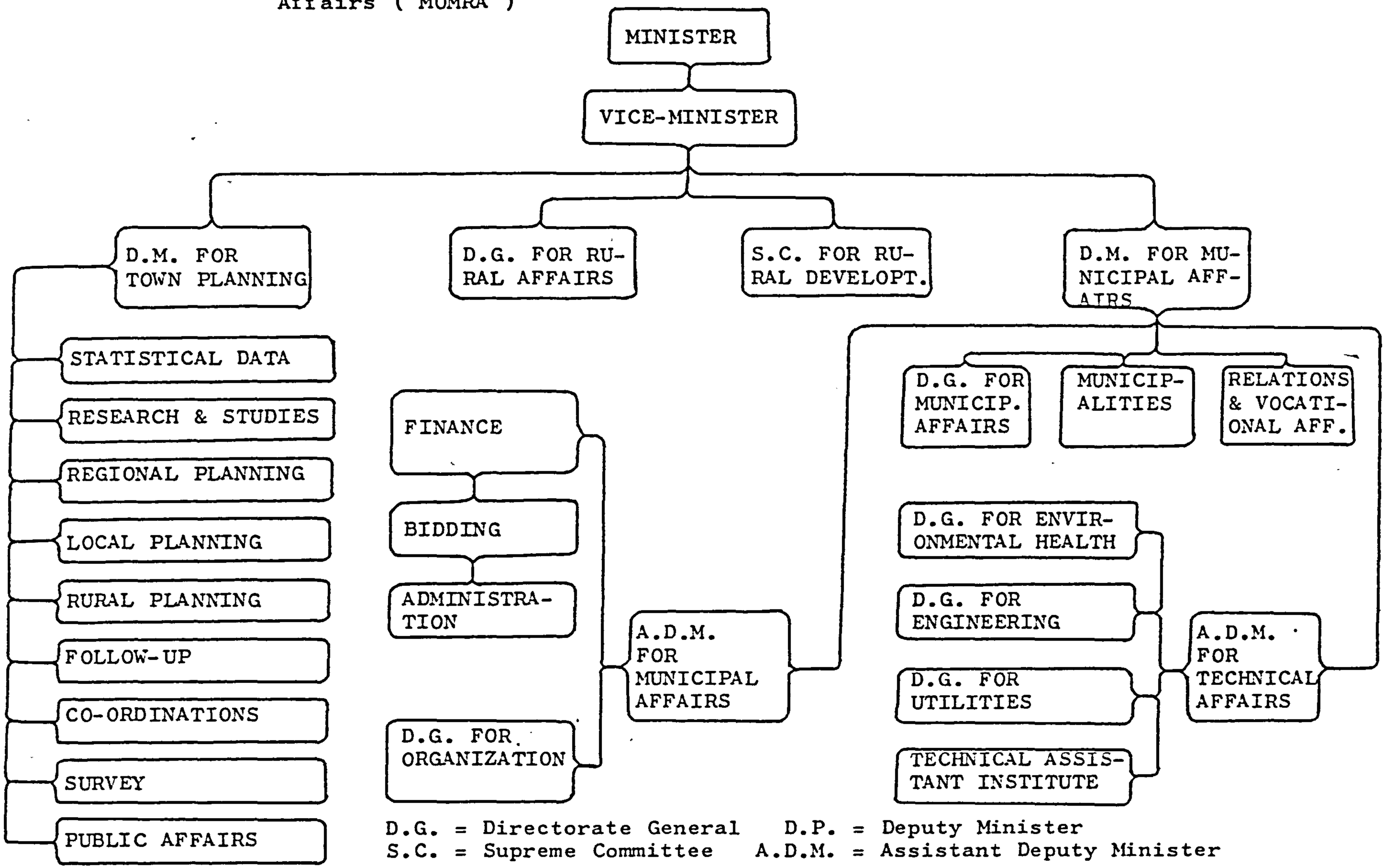
Therefore, MOMRA is there to deal with purely physical planning tasks at both regional and town (or local) levels.

9.28 In order for MOMRA to work satisfactorily towards achieving its goals and fulfilling its responsibilities, it was divided into: first, Deputy Ministry for Town Planning, responsible for physical planning at regional and town levels; second, Deputy Ministry for Municipal Affairs, responsible for supervising and funding over 110 variously-graded municipalities throughout the country; third, General Directorate of Engineering Affairs; and, fourth, General Directorate of Rural Affairs (Khashoggi, 1979 and Al-Farsy, 1986 – see Figure Four). The two former deputies seem to be more important for our immediate purposes.

9.39 The Deputy Ministry for Town Planning includes nine departments: Planning and Statistical Data; Research and Studies; Regional Planning; Local Planning; Rural Planning, Follow-up; Co-ordination of Projects; Survey; and General and Public Affairs. (Khashoggi, 1979). In co-operation with the others, the Departments of Regional, Local and Rural Planning are – at least in principle – responsible for physical planning at the three levels of regions, towns and rural areas, respectively.

9.30 The Deputy Ministry for Municipal Affairs is – as mentioned above – responsible for municipalities over the whole country. Exceptional are municipalities of the large cities (e.g. Riyadh, Makkah, Jeddah, Madina, Abha, ... etc) to which planning responsibilities and executive powers within their cities' jurisdictions are delegated from the above-named Deputy.

Figure Four : Administrative Structure of the Ministry of Municipal and Rural Affairs (MOMRA)



D.G. = Directorate General D.P. = Deputy Minister
S.C. = Supreme Committee A.D.M. = Assistant Deputy Minister

Source: Developed In Light of Al-Farsi , 1986 . P. 125 & Khashoggi , 1979.

(Daghistani, 1985). However, while the Deputy Ministry for Municipal Affairs supervises municipalities over the whole country (with less control over larger cities), the Deputy Ministry for Town Planning carried the burden of preparing physical plans for regions, smaller towns and rural areas, in order to provide regulation of urban expansions. It spells out building regulations and many other physical development specifications which the municipalities should apply on the ground.

9.31 In order for MOMRA to supervise, guide and control the functioning of municipalities, it has seven regional planning offices spread throughout the whole country. (Khashoggi, 1979). Regional jurisdictions of these offices have not been rigourously based upon the jurisdictions of the five geographical or the fourteen administrative regions into which the country is divided. This is mainly because such offices primarily control municipalities in areas other than those of large cities, whose mayors report directly to MOMRA.

9.32 Disregarding their sizes, municipalities tend to be responsible for local matters like paving local streets, cleaning streets and other areas, beautifying and landscaping open areas and street-islands, controlling buildings (i.e. issuing building permits) and so forth. The difference is that the larger cities' municipalities plan and execute, while the smaller ones execute what MOMRA plans. Both work under the supervision of MOMRA, but such supervision tends to be targeted more to the smaller municipalities. Therefore, municipalities of larger cities enjoy some kind of self-reliance. However, two points are important to note: first, all municipalities rely heavily, and almost completely, on MOMRA in terms of annual budgets; and second,

municipalities function along with offices of a high number of ministries which are responsible for various elements in urban development programmes. The latter point will be further explained shortly.

9.33 It has to be admitted that the above study for planning functions and institutions at Saudi local levels is not an exhaustive one. For example, it does not detail the actual physical planning formulation, execution and budgeting. Nevertheless, it went far enough – at least for our purposes – towards giving a general idea about institutions and functions of physical planning in Saudi Arabia, which tend to act at local levels. Prior to that, planning functions and institutions at the Saudi national level were briefly highlighted. In this regard, two inter-linked questions lend themselves to discussion. First: Does the structure efficiently stimulate the implementation of national strategies and programmes on the ground at distant local levels?; second: Does the structure stimulate efficient linkages between planning aspects on the one hand and planning levels on the other in Saudi Arabia? The next two sub-sections will respectively deal with matters related to these inter-linked questions, and will then conclude with an illustration of possible proposals which will be further illuminated in Chapter Eleven.

ACHIEVEMENTS IN FACE OF TARGETS

9.34 In order to better satisfy the issue suggested by the above title, it is probably ideal to carry out a lengthy analysis for the planned ministerial programmes, in comparison with what have actually been achieved on the ground. However, the intention here is to concentrate on measuring the extents to which investment

programmes and employment levels in some producing economic sectors have been managed on the ground in light of the strategic programmes and aims stated for them in the context of the national development plans. The study of such sectors in particular is mainly due to the fact that the proposed hierarchy of growth and development service centres aims at stimulating development and impacts of economic activities: such activities fall under the category of producing centres (e.g. agricultural and industrial activities).

9.35 To prelude understanding the data provided in Table One, it is deemed reasonable to define briefly the role of each of the financial institutions referred to. This would certainly help in achieving the purpose of the whole of this Chapter: that is studying the institutional structures and roles in Saudi Arabia.

9.36 The Saudi Arabian Agricultural Bank (SAAB) was established in 1962, to provide loans for agricultural activities:

> "All loans made are interest-free to the borrower and can be used for a wide range of purposes, including the purchase of seed, fertilizers, animal stock, construction, drilling and integrated investments such as large scale dairy projects. The SAAB operates from over 52 branch offices which are located in most of the areas with high agricultural potentials." (Third Plan, 1980-1985, p. 275.)

Administratively, the SAAB operates under the supervision of the Ministry of Finance and National Economy. However, the Third Plan (1980-1985, p. 275) stated that the Bank also disburses:

> "agricultural subsidies on behalf of the Ministry of Agriculture and Water:"

9.37 The Saudi Industrial Development Fund (SIDF) was - as already mentioned in Chapter Five - established in 1974, to finance private sector's industrial ventures.

> "Industrial loans are made interest-free up to 50% of project cost" (Third Plan, 1980-1985, p. 275).

Organisationally, the SIDF is also responsible to, and administered by, the Ministry of Finance and National Economy.

9.38 The Real Estate Development Fund (REDF) was established to provide loans for private residential house construction, as well as for the construction of residential compounds.

> "Loans made are up to 70% of cost for owner occupiers and up to 50% for other borrowers. ... A discount of 20% is now allowed on timely payments with an additional 10% discount if repayment is made in one lump sum." (Third Plan, 1980-1985, p. 275).

Organisationally, the REDF operates under the Ministry of Finance and National Economy as well.

9.39 The Saudi Credit Bank is the only government fund concerned with lending to private individuals.

> "It was established in 1391 (i.e. 1971) to grant loans up to a maximum of S.R. 75,000 to low income Saudi families for a number of purposes, including marriage, health, artisan workshops and home improvements." (Third Plan, 1980-1985, p. 275).

9.40 The REDF, the SIDF and the SAAB are public financial instutions that have been distributed throughout the country in order to give Saudi developers in the housing, industrial and agricultural sectors access to interest-free loans. This could be viewed in light of the Saudi long-term national goals that call for the diversification of the Saudi economy and for enabling every Saudi family to own a decent house. However, these are not all the available public financial institutions: there are others, like the Specialist Finance Programmes (SFP) and the Public Investment Fund (PIF), that lend to public institutions whenever the case applied for is approved.

9.41 To gather arguments towards the purpose of this section,

analysis will be directed to the data provided in Table One. The Table shows the targeted and programmed expenditures that were precisely defined by the MOP in context of the Third Development Plan for the above-mentioned institutions during the period 1980-1984. Together with these, the Table shows the levels of investments actually achieved over the same period. However, selection of the period 1980-1984 for this analysis is enforced by the fact that the Saudi institutional structure has not witnessed any significant reform since 1980: an important condition for the purpose of both this analysis and any later foreseen refinements. The question which concerns the purpose of this section is: Have the actual expenditures of these financial institutions been managed in light of the aims and programmes that were precisely spelled out by the MOP in context of the Third Strategic Plan?

9.42 Figure Five illustrates diagramatically the behaviour revealed by the data in the bottom rows of Table One. The figure suggests that, in aggregate terms, the programmed targets that were spelled out by the Third Development Plan for these four institutions have been dramatically exceeded by the actual investments, right from the year 1981: i.e. the first year in which the Plan was put into action.

9.43 A close study of the data that correspond to each of the four institutions referred to (Table One) should help in envisaging the wide gaps between the targets and the implemented programmes: the implemented investment programmes are significantly larger than the planned ones. Such a situation should suggest two opposing impacts. First, the high levels of actual expenditure (in face of the strategically programmed ones) that were achieved by the SAAB and the SIDF (for example) should have respectively helped in

Table One: The Targeted and Achieved Loans By Some Governmental Financial Institutions (S.R. millions: current values – i.e. not corrected for inflation)

1980-1981

	(1) Target	(2) Achieved	(3) % Achieved
Saudi Agricultural Bank	1,000	2,531	253.1
Saudi Credit Bank	66	357	540.9
Saudi Industrial Bank	2,000	6,669	333.9
Real Estate Dev. Fund	2,749	7,598	276.4
Total	5,815	17,155	295.0

1981-1982

	(1) Target	(2) Achieved	(3) % Achieved
Saudi Agricultural Bank	1,000	2,933	293.3
Saudi Credit Bank	66	330	500.0
Saudi Industrial Bank	2,000	5,348	267.4
Real Estate Dev. Fund	2,561	7,141	278.8
Total	5,627	15,752	279.9

1982-1983

	(1) Target	(2) Achieved	(3) % Achieved
Saudi Agricultural Bank	1,000	4,166	416.6
Saudi Credit Bank	66	243	368.2
Saudi Industrial Bank	2,000	5,116	255.8
Real Estate Dev. Fund	2,386	8,307	348.2
Total	5,452	17,832	327.1

1983-1984

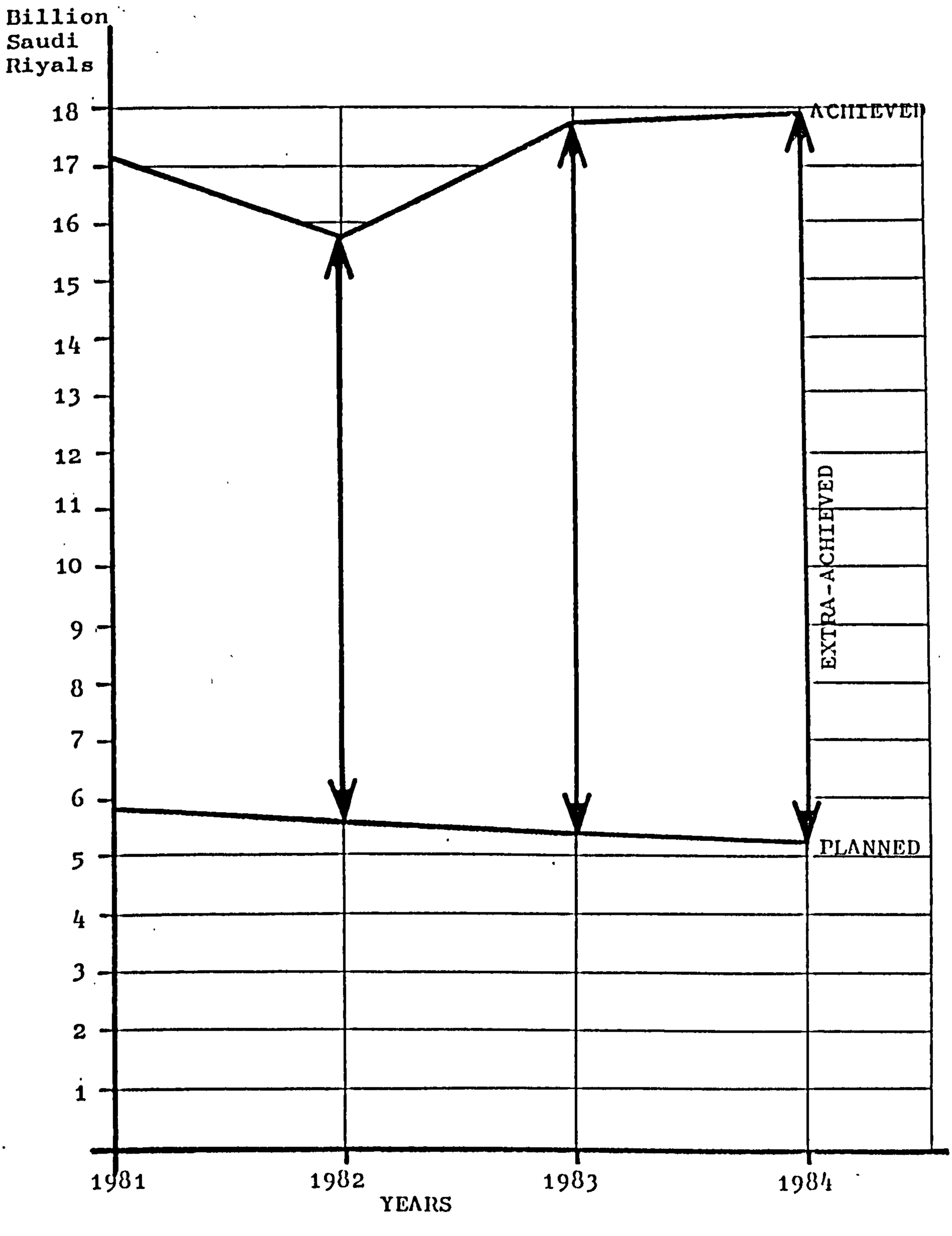
	(1) Target	(2) Achieved	(3) % Achieved
Saudi Agricultural Bank	1,000	3,496	349.6
Saudi Credit Bank	66	233	353.0
Saudi Industrial Bank	2,000	5,218	521.8
Real Estate Dev. Fund	2,232	8,909	399.1
Total	5,298	17,856	337.0

Source:
(1) Third Development Plan, 1980-1985, p. 282, Table 4-55.
(2) MOP, 1985, Achievements Of The Development Plans, 1970-1984, p. 171, Table 20.
(3) Calculated by the researcher.

developing the agricultural and non-oil manufacturing sectors, and therefore pushed things forward towards better achievement of the national goal which calls for the diversification of the Saudi economy: the impacts of such investments will be briefly demonstrated in a later part of this section. Second, on the other hand, dramatically exceeding the levels of expenditures that were initially planned by the strategic programmes may not be a healthy long-term approach. The opportunity costs due to not managing and monitoring implementation at local levels in light of the, presumably, realistic strategic aims and programmes could be high. If such costs were not at the current expense of other sectors, then they could be at the expense of fostering future developments: i.e. such opportunity costs could simply be in the form of losing the chance of investing, or saving, the extra expenditures for the needs of future development duties. Furthermore, the extensively developed industries and agricultural activities may require continuous subsidies and incentives (probably much more than what was planned and expected by the national strategic plan) without which some of them would probably be vulnerable to closure.

9.44 In terms of aims, Table One reveals the wish of the Third Plan to have the agricultural and manufacturing activities realistically and gradually developing, but the construction sector growing at gradually slower rates. This is respectively reflected by the stable levels of the targeted loans that were programmed for the Agricultural and Industrial Banks and by the declining levels of the targeted loans that were programmed for the Real Estate Development Fund. In light of such a strategic wish, the Third Plan (see Table Two) planned for a decline in the employment provided by the two sectors of agriculture (allowing mainly for the

Figure Five : The Planned and the Achieved Levels of Loans to Saudi Developers Over the Period 1981-84 : the Figure Addresses the Aggregates in Table One



Source : The Grand Totals In Table One

expected mechanisation) and construction by rates of 11.7% and 25.7% respectively, over the period 1980-1985. Meanwhile, the Plan aimed for an increase in the employment provided in the non-oil manufacturing sector by 57.6% over the same period (refer to Table Two).

9.45 Table Two demonstrates that, instead of achieving the above-mentioned respective changes of -11.7%, -25.7% and +57.6% in total employment over the period 1980-1985, the three sectors of agriculture, non-oil manufacturing and construction achieved respective growth of +3.1%, +294.8% and +168.4%. Such achievements were significantly different from those programmed by the Third Plan, not only in terms of the quantitative indicators but also in terms of attaining the opposite objectives of the Plan's aims: e.g. agricultural and construction employments grew despite the expectation and intention of the Plan that they should decline (refer to Table Two). The question is: Has dramatically exceeding the strategically-targeted (or programmed) levels of expenditure (refer to Table One) played any role in initiating the unexpected sudden growth witnessed in many producing sectors (e.g. construction, manufacturing) in Saudi Arabia?

9.46 The loans provided by the SIDF have probably been the fundamental stimulator for growth of industrial developments in Saudi Arabia. Of the 57 factories interviewed by the researcher in Jeddah and Yanbu (refer to Chapter Five), 51 (or 89%) took advantage of the SIDF's interest-free loans. According to the researcher's questionnaire survey (carried out in April and May, 1988), at least 45 (or 88%) of those 51 factories would have been unable to establish without loans. To broaden the view to a

Table Two: The Planned and the Achieved Changes in Employment By Economic Sectors in Saudi Arabia, Over the Period 1980-1985.

Economic Sectors		Planned Change * (percentages)	Actually Achieved Change** (percentages)
Agriculture	(1)	-11.7	+3.1
Mining	(1)	+34.2	-30.1
Non-oil Manufacturing	(1)	+57.6	+294.8
Utilities	(1)	+49.2	+367.9
Construction	(1)	-25.7	+168.4
Trade	(2)	+9.3	+79.0
Transport	(2)	+28.0	+41.4
Finance	(2)	+28.7	+291.7
Other Services	(2)	+4.8	+76.0
Government	(3)	+31.2	+46.1
Sub-total: non-oil sectors		+6.0	+79.9
Sub-total: oil-sectors		+27.8	+80.8
Grand Total		+6.3	+79.8

Notice: For an idea about the absolute figures, consult Table Four, Chapter Eight.

(1) Producing sectors
(2) Service sectors
(3) Excludes non-civilian Employments and includes daily wage workers not classified as civil servants.

Source: * Third Plan, 1980-1985, Table 3-9, p. 100.
** Calculated by the researcher: Subtracting the Planned (in the 3rd Plan, 1980-1985, Table 3-9, p. 100) from the actually achieved figures (in the 4th Plan, 1985-1990, Table 2-6, p. 32), and converting the results to percentages of the figures in the base year (i.e 1980).

national scale, the Saudi Consultant House (1986, p. 173) wrote that:

> "since its inception in 1974 and up to the year 1985, the SIDF has provided 1,044 loans to finance 885 industrial projects."

According to the data provided by the Ministry of Industry and Electricity (1985, p. 18), the operational non-oil factories in the whole country totalled 1,471 in 1985. Assuming that almost all factories that have been granted interest-free loans (i.e. the 885 factories mentioned in the above quotation) were included in the above-mentioned 1,471 factories, then it can be argued that the SIDF gave interest-free loans to almost 71% (i.e. 885 x 100 / 1,471) of the total private industries in the nation up to the year 1985; an indication of the significant role played by the SIDF in stimulating the creation of non-oil industries from scratch.

9.47 Likewise, the impacts of the loans given by the REDF were neither expected nor targeted by the Third Development Plan (refer to Table One). Table Three shows that, despite the decline strategically planned for in the construction sector (in investment, development and employment terms), quantities of the newly built-up housing units during the Plan's period (1980-1985) were - just as the change witnessed in the construction employments - dramatically higher than the targeted levels: roles of the REDF's interest-free loans to private owner-occupiers had been significant.

> "Government loans (through the Real Estate Development Fund) are estimated to have assisted in the construction of 44 percent of all housing completed during the Third Plan, about 195,000 units in all." (4th Plan, 1985-1990, p. 411).

9.48 It is probably worth stressing again that dramatically exceeding the strategically-programmed levels of investments in agricultural, industrial and construction developments should necessarily fall under the umbrella of the willingness of the Saudi

Table Three: Housing Targets and Completions During the Third Plan (Numbers)

Housing Type	Housing Units		Deviation from Targets
	Target	Actual	
Public Sector (Total)	86,200	139,400	+62%
Low-Income	32,900	17,800	-46%
Public Employee	53,300	121,600	+128%
Private Sector (Total)	181,000	298,000	+65%
Publicly Financed	103,000	195,000	+89%
Privately Financed	78,000	103,400	+33%
Grand Totals	267,200	437,800	+64%

Source: The Fourth Plan, 1985-1990, p. 411

Government and the public institutions concerned to hasten the achievement of better diversification of the economy, and hence open up more and better chances for the private sectors: long-term goals of the Saudi Government. However, as indicated previously, from the planning point of view, dramatically passing over the strategically programmed targets of investments and developments could lead to undesirable medium and long-term impacts. What could these be?

9.49 For the purpose of these arguments, it has to be assumed that - although without providing substantial evidence - when the Third Plan (for example) spelled out strategies, investment and development programmes, it took into account that all sectors of the economy should work as a single system that required to be fostered in light of the country's aims, resources and values. As argued previously, dramatically exceeding the strategically programmed levels of investments had led to better provision for housing and better stimulation for the creation of industries from scratch. On the other hand, such unexpected achievements (which occurred primarily due to unexpected levels of investment) had led

to spontaneous pressures on the complementary services (i.e. other parts of the system): e.g. more industries and houses required more financial incentives and subsidies, roads, sewerage systems, water supply, electrification, and other services, than the plan had expected and programmed for. In aggregate terms, the impacts of these multiplier effects had been significant. To demonstrate this, the Third Plan (1980-1985, p. 88) stated:

> "Total government expenditure on civilian development administrations, emergency reserves and subsidies during the Third Plan is set about S.R. 783 billion at current prices."

The Fourth Plan (1985-1990, Table 2-1, p. 13) came later to show clearly that the actual expenditures on the above-mentioned fields during the Third Plan period totalled 980 billion (i.e. an increase of 20% over the strategically-targeted total): this figure is not corrected for inflation.

9.50 The Fourth Plan (1985-1990) stressed the need for reviewing the actual levels of loans and subsidies provided and for targeting these to areas and people of need. The Plan (p. 49), for example, argued that:

> "subsidies paid on unlimited quantities of imported agricultural machinery and equipment encourage their excessive use and act as a disincentive to local repair and maintenance activities."

Similar suggestions were made in regard to the loans provided by the REDF and others.

9.51 Likewise, the increase in employment was dramatically more than that programmed by the Third Plan (refer to Table Two). In light of the deteriorating oil markets, the Fourth Plan intended to repatriate 600.2 thousand non-Saudi employees over the period 1985-1990 (refer to P. 7.18). However, these and other corrective measures could work up to the expectations of the Fourth Plan only

if things on the ground were implemented and monitored in light of the strategically-programmed objectives and investments.

9.52 All the above suggest that there is a need for a machinery that could help the MOP in ensuring that developments and investments on the ground do take place in light of the national strategies and programmes. This is essential in order to ensure efficient allocation and utilisation of resources as well as to ensure better translation of national plans' guidelines at local levels. The Third Plan (1980-1985, p. 477) acknowledged such a need:

> "There is a need for improved organisational and administrative procedures that will ensure continued adherence to the Plan's quantitative and qualitative objectives during the Plan period, and thereby improve the management of the economy."

To further explain what is meant precisely by the above quotation, the Third Plan (p. 478) continued to recommend strongly that:

> "All recommendations concerning substantial elements of implementation of the Third Plan, such as the review of Government manpower requirements and expenditure planning, should be reviewed regularly."

9.53 In context of defining responsibilities of different governmental agencies, the Third Plan (p. 478) argued that the MOP should (amongst other roles):

> "ensure strict adherence to controls on increasing manpower, and the phasing of expenditure by the government agencies"

Assuming that the MOP has been doing its utmost to fulfill this responsibility satisfactorily, the previous analyses that concern Tables One, Two and Three support the above suggestion: that is the need for a co-ordinating machinery that could assist the MOP in better ensuring that agencies' actions at local levels are in light of the national strategies, aims and investment programmes.

9.54 The next section will study the need for co-ordinating planning aspects and planning levels, adding geographical space to the game.

LINKAGES BETWEEN PLANNING LEVELS AND ASPECTS

9.55 Examining the overall Saudi institutional structure in general, (see Figure One), and the planning institutions in particular, (see Figures Three and Four), suggests that at least eight potential problem areas can be identified regarding the structure itself, and the allocation of related functions to independent institutions. Besides these, there are several good points which will be briefly spotlighted in Chapter Eleven. However, for our immediate purposes, these potential problem areas are as follows:

i Amongst other responsibilities, the MOP oversees the preparation of National Economic Plans and supervises the implementation of each ministry's programmes, so that directing programmes to the achievement of the overall national goals can be ensured. Despite the apparently serious efforts being made by the MOP, the system may not help in co-ordinating inter- and intra-ministerial programmes at all levels with national strategies and goals: the task is probably too extensive. The previous section demonstrated the obvious gaps between strategic aims and implemented programmes with reference to some public financial and development institutions;

ii In theory, physical planning should translate national strategic goals and directions into implementable physical plans. Therefore, economic and physical planning are

integrated aspects that are allocated to two different institutions in Saudi Arabia: the MOP handles economic planning and MOMRA handles physical planning. This should be an advantageous separation from the point of view of dividing workloads between the two institutions. The problem, however, is that the MOP primarily operates only at national levels, while MOMRA primarily operates at local levels. Because the MOP has no offices distributed throughout the whole country, it is probably difficult for it to ensure that physical plans executed at local levels are properly translating national objectives and goals. Therefore, the system does not only provide for the separation of these two related planning aspects (physical and economic), but also for the separation of planning levels. There is no doubt that the MOP and MOMRA are doing their best to co-ordinate physical and economic plans, but the absence of a formal co-ordination machinery probably makes the achievement of effective co-ordination a difficult task;

iii As a result of the above argument, physical plans tend to give more attention to physical development and expansion of settlements, with much less concentration on the economic impacts of such physical developments. For example, the Al-Baha Town's Municipality is proposing the relocation of all the metal shops, car workshops and carpentry shops located along the sides of the Main Taif-Abha Road to another distant and segregated area. This proposal is built mainly on the argument that the entrance to the region should be kept beautiful and clean. It is not known to this research

if any attempt at all was given to exploring the spatio-economic impacts of such proposed relocations on both individual workshops (which had made their decisions to locate there on some economic grounds) and/or on the aggregate economy of the region. The reason behind this is probably that the Al-Baha Municipality represents MOMRA in handling matters related only to physical planning, while economic planning is probably considered only at the national level, where the MOP primarily functions. There is no doubt that stimulating spatio-economic development throughout the whole country is a national strategy that the purely physical planning at local levels does not strongly address. In this respect, urban economic generation is an issue which is not strongly connected with physical planning at local levels in Saudi Arabia, even in larger cities;

iv The MOP and MOMRA each has its own regional planning department (refer to Figures Three and Four). In principle, the former is responsible for regional economic planning, while the latter is responsible for regional physical planning. The former operates at the national level only, and the latter operates in collaboration with the municipalities concerned to prepare or to assist in preparing regional physical plans. However, having these two departments administered by two different bodies could stimulate: first, individuality in making decisions regarding regional development, and this could lead to limited integration between economic and physical aspects of regional planning; and second, competition between them, rather than co-ordination and co-operation;

v Amongst other duties, MOMRA is responsible for all the municipalities throughout the whole country. As argued above, the MOP has no offices distributed throughout the country. This suggests that the system provides for a smoother flow of data within MOMRA than within the MOP. Therefore, the institutional structure of these two Saudi ministries makes it easier perhaps for MOMRA to get its (physical) plans updated frequently, followed-up and implemented at national level than is the case for the MOP's (sectoral-economic) plans. Therefore, the MOP tends to rely on the data produced by various ministries rather than on its own data: a factor which may not help the MOP to independently ensure that the ministries' actions are taking place in light of the national strategies and goals;

vi A high number of ministries is responsible for urban development programmes in Saudi Arabia. For example, the Ministry of Public Housing provides and maintains governmental buildings; the Ministry of Health provides clinics and hospitals; the Ministry of Education provides schools, ... etc. Municipalities issue planning permits in light of the physical plans which guide developments' zonings and patterns in the urban areas concerned. It has to be admitted that allocating development loads to different ministries encourages specialisation and ensures that each function receives the attention that it requires. However, concerning co-ordination of such urban programmes, the Third Plan (1980-1985, p. 63) argued that although the 1979 institutional reforms have done much to further the

accomplishment of Saudi's development aims, several weaknesses still beset the system, amongst which is the

> "absence of mechanisms for co-ordination of programmes administered by different agencies";

vii Almost every ministry with regional and local responsibilities has its own planning department. As previously explained, the MOP co-ordinates the overall aims of ministries with the national strategies and goals. However, co-ordinating ministerial and strategic aims at national level does not alone help in ensuring that plans and programmes executed by each ministry will perform in light of the national goals, strategies and programmes. The previous section demonstrated the gaps between strategic programmes and those that were actually implemented by some public financial institutions at local levels; and

viii Each ministry has its own spatial pattern upon which its offices are independently distributed throughout the whole country. This means that some ministries are represented in one place, but not in others. This makes even informal horizontal consultations and contacts among local ministerial offices which handle complementary responsibilities impossible in some areas.

9.56 As previously quoted, the Third Development Plan (1980-1985) was aware of most of these problem points. Accordingly, it proposed a hierarchical spatial basis upon which various ministries and other governmental agencies could distribute their offices, in order to stimulate better co-ordination and cohesion of intra- and inter-ministerial development programmes, as well as to enable ministries to consider wider development initiatives throughout the

country. The next section will examine this issue.

INSTITUTIONAL JUSTIFICATIONS OF THE PROPOSED HIERARCHY OF CENTRES IN SAUDI ARABIA

9.57 As previously mentioned, the Third Development Plan (1980-1985) acknowledged the high opportunity costs associated with the Saudi institutional structure, lacking effective mechanisms for co-ordinating intra- and inter-ministerial programmes and for avoiding duplication of the same services in some areas. The need for ensuring co-ordination between such programmes and the national strategies and aims has already been addressed. However, in order to provide for more effective functional and spatial co-ordination – as well as for other economic, social and settlement aims (refer to Chapters Six, Seven and Eight respectively) – the Third Plan proposed of hierarchical pattern of growth and development service centres throughout the country:

> "This system of centres enables the necessary institutional (i.e. offices) elements for development to be distributed evenly and efficiently throughout the Kingdom without unnecessary duplication of activities in a given area" (MOP, 3rd Plan, 1980-1985, p. 109).

9.58 The 'even' and 'efficient' distribution of institutional offices will, according to the plan, be stimulated by the proposed hierarchy of growth and development service centres as a spatial basis. In this respect, the system of centres is deemed effective in the essence that it:

> "... will help contain the disparities between regions and also allow full initiative to ministries to foster the development of the Kingdom." (MOP, 3rd Plan, 1980-1985, p. 110.)

9.59 Through providing a spatial basis for identical distribution of ministerial offices, the Third Plan (1980-1985, p. 109)

optimistically anticipated desirable institutional impacts of the proposed hierarchy of centres.

> "The new system of development service centres will remove the institutional and administrative constraints by developing facilities at the regional and district levels." (MOP, 3rd Plan, 1980-1985, p. 109.)

9.60 However, the proposed hierarchical pattern of growth and development service centres is a regional policy that has various multi-disciplinary objectives, amongst which is:

> "The co-ordination of activities, projects and programmes of ministries and other development agencies having regional or district geographical responsibilities. This co-ordination will strengthen the provision of services to the individual and enable more efficient use of manpower." (MOP, 3rd Plan, 1980-1985, p. 108.)

This reveals that the ministries and agencies referred to are primarily those concerned with development of local economic activities and potentials (e.g. Ministry of Agriculture; Ministry of Industry).

9.61 The Fourth Development Plan (1985-1990) acknowledged the need for co-ordinating ministerial programmes at local levels. In this regard, it stated:

> "Strengthening the co-ordination between agencies and their programmes at the Regional, Amirate and Sub-Amirate levels is crucial to the provision of cost-efficient services in both urban and rural areas. It is only by giving priorities to development at the regional and sub-regional level, and by offering facilities and services to match local requirements, that under-utilisation of public assets can be avoided, their maintenance taken into account, and an efficient service delivery system created." (MOP, 4th Plan, 1985-1990, p. 421.)

However, as elaborated upon in previous sections, the Fourth Plan - just as the Third Plan - adhered to the policy of hierarchical pattern of growth and development service centres throughout the Kingdom. It believed that, besides some settlement, economic and

social positive impacts, this system is capable of providing for better co-ordination of the inter-ministerial programmes at local and regional levels.

9.62 With regard to all the above points, two apparently paradoxical questions lend themselves to brief discussion. First, which is the prerequisite for effective implementation; the institutional co-ordination between ministerial programmes at local levels or the spread of a hierarchical pattern of growth and development service centres throughout Saudi Arabia? Second, will the existence of a hierarchical pattern of growth and development service centres as a spatial basis necessarily, and independently, lead to enhanced levels of functional co-ordination among ministries' offices and programmes at local levels in Saudi Arabia? Matters related to these questions will be dealt with in context of the next section.

THE NEED FOR INSTITUTIONAL REFINEMENTS IN SAUDI ARABIA

9.63 In Chapter Two, it was argued after Cloke (1979) that a high number of the British Key-Settlements were delayed due to weak co-ordination between planners and those responsible for the provision of water, electricity and other services. In context of the institutional reforms made in Norway in order to implement their decentralised concentrations' strategy, an inter-ministerial committee was established in 1972 to ensure effective vertical co-ordination between the municipal, county and national levels. These helped in ensuring the effective implementation of the then current local growth centres throughout the Norwegian backward regions (OECD 1979). Therefore, co-ordination among governmental agencies which provide various services throughout Saudi Arabia can

be viewed as one of the prerequisites for successful implementation and/or functioning of the proposed hierarchical patterns of growth and development service centres. A centre can potentially better polarise or stimulate the creation of new enterprises if it has a wide range of service incentives adequately available. Accordingly, lack of co-ordination among ministerial programmes at local levels is a real challenge that is likely to delay implementation and/or proper functioning of the proposed pattern of centres in Saudi Arabia. However, providing for such inter-ministerial co-ordination is essential, even in without growth policy conditions.

9.64 The Saudi Government was aware of such institutional constraints to spatio-economic developments at local levels. Accordingly, the Royal Commission was established to provide, in the Two Industrial Cities of Jubail and Yanbu, the wide range of services provided by a high number of ministries everywhere else in the country. Likewise, the Ministry of Industry and Electricity was given the task of ensuring the provision of services in the Industrial Estates (refer to Chapter Five). In this respect, conflicts and delays in service provision were avoided in these two types of industrial areas.

9.65 This thesis believes that spreading a hierarchical pattern of growth and development service centres may encourage identical spatial spread of ministerial offices throughout Saudi Arabia but, by itself, the pattern is not likely to impose any functional linkages among the spatially-linked ministerial offices. Only if there is an organisation with power and authority to co-ordinate and integrate the ministerial programmes at local levels will there be real hope that MOP can ensure that actions at local levels take

place in light of the national strategies and programmes. Otherwise, the proposed hierarchical centres will end up regulating the spatial (rather than the functional) distribution of the ministerial and other government agencies' offices. Thus, the hierarchy of centres will merely be a passive co-ordinating policy. This should prelude for the proposed institutional refinements which will be detailed in Chapter Eleven.

9.66 Institutional structures and functions of the planning authorities in Scotland will be briefly studied. In light of that, the intended institutional proposals (in Chapter Eleven) can be facilitated. Reading about Scotland in particular will be justified and further considered in context of the next section.

STRUCTURE AND PLANNING FUNCTIONS OF THE SCOTTISH LOCAL GOVERNMENT: A CASE STUDY

9.67 This section aims briefly at looking at the structure and functions of Local Government in Scotland, another country with extremes of topography, remoteness and contrasts between heavily urbanised and sparsely populated regions. This comparison helps illustrate the proposed institutional refinements in Saudi Arabia which will be considered in context of Chapter Eleven. In doing so, this section will not be exhaustive. It will rather target efforts to examining the structure of local government in Scotland, allocation of functions to them, ability of the system to stimulate co-ordination and integration of related functions and a brief review of historical reforms that the system recently witnessed.

9.68 But, why is Scotland in particular a valid comparison? Indeed, the selection of Scotland as a case study is built on four consecutive and complementary justifications:

i Local Governments in Britain as a whole have a comparatively long history, throughout which they were reformed several times so that they could handle obligations of changing natures and loads. Accordingly, the case of Britain is selected in particular;

ii In order to study the structures and functions of Local Governments in Britain, one needs to compare the slightly different systems in Scotland, Wales, England outside London and Greater London; an additional effort that would not effectively benefit the purpose of this section. Therefore, one system of these four has to be selected for a brief study;

iii Local Government in Scotland is selected for a closer study. This selection is based on the argument of Boyle and Keating (1986, p. 30) that describes the functioning of the two tiers of Local Government in Scotland as:

> "In any case, liaison is close and the split is by no means comparable to the division of responsibilities in England."; and

iv The institutional reforms of Local Government in Scotland in 1975 were made when growth area policy had been active, and government was pre-occupied with regional development policy and implementation: this was a similar stage to that imminent in Saudi Arabia. One of the future demands on local government in Scotland was defined by the Wheatley Report (1969, p. 35) as:

> "If policies of the location of industry and employment continue to be successfully followed, the population will be differently distributed throughout the country. ... It is reasonable to make provision for greater affluence and greater leisure, and in particular for a wider use of the countryside."

Accordingly, with the location of industries (for which the then current growth area policy was concerned) in mind, later reforms were made in Scotland: as argued above, a similar development stage to the one imminent in Saudi Arabia.

However, for comparative information about these four systems of Local Government in Britain, reference can, for example, be made to Keating and Boyle (1986) and/or Cullingworth (1985).

9.69 Local Government has a long history in Scotland, but it was only in the nineteenth century that a structure was developed. Reorganisations that were made in light of the Local Government (Scotland) Act 1929 and of the Wheatley Report (1969) are the most outstanding institutional reforms that the Local Government in Scotland experienced (Monies, 1985). Both reforms aimed at getting the system coping better with the changing circumstances. However, highlighting the impacts of the recent Wheatley Report on the structure and functions of the Local Government in Scotland should satisfy the purpose of this section.

9.70 The Royal Commission on Local Government in Scotland was set up in May 1966 under the chairmanship of Lord Wheatley. At the end of its lengthy studies, the Commission considered three possible systems of reforms:

> "1 - a system of 'all-purpose' authorities;
> 2 - a 'tier system'; or
> 3 - an 'all-Scotland' authority" (Monies, 1985, p. 9).

The first and third alternatives were rejected on the grounds of the enormity of the task and geographical areas. The second alternative was accepted; that is, to have two tiers of Local Government, a regional and a district.

9.71 Setting aside discussions of all the amendments made to the proposals of the Wheatley Report in light of some White Papers, the Local Government (Scotland) Act 1973 provided for a two-tier system in Scotland, except in the three Islands. Prior to that, in the whole of Scotland, there were:

> "four counties of cities, twenty-one large burghs, 176 small burghs, thirty-three counties and 196 districts." (Cullingworth, 1985, p. 48.)

But, in consequence of the Local Government (Scotland) Act 1973, this institutional structure was reformed to:

> "nine regional and fifty-three district Councils. Together with the three island authorities there are thus sixty-five local authorities of which forty-nine have planning powers." (Cullingworth, 1985, p. 48 - see also Figure Five.)

Figure Six: The Current Local Government Structure in Scotland

REGIONS		ISLANDS
6 REGIONAL PLANNING AUTHORITIES	3 GENERAL PLANNING AUTHORITIES	3 GENERAL PLANNING AUTHORITIES
37 DISTRICT PLANNING AUTHORITIES	16 DISTRICT (NOT PLANNING) AUTHORITIES	

Source: Cullingworth, 1985, p. 51.

9.72 As quoted above, 16 (or 25%) of the total sixty-five local authorities in Scotland have no planning powers.

> "The fact that, unlike the situation in England, not all local authorities have planning powers is a result of the difficulties of devising a local government structure for those parts of the country which cover a large area but contain few people. By allocating planning powers in these areas of scattered population to the regional authority it was possible to increase the number of districts (and thereby also reduce their enormous geographical size)." (Cullingworth, 1985, p. 48.)

9.73 There are thus three types of areas in Scotland. In six regions, planning is divided between regional and district authorities. In three regions, planning is allocated to the regions; the districts have no planning functions. These three regions are termed 'general planning authorities' (see Figure Six). In the three Scottish Island areas, there are no districts; there are three local authorities (one in each) who undertake the functions of both regional and district planning authorities.

> "These authorities are termed 'island areas' (not regions) and are designated as 'general planning authorities'." (Cullingworth, 1985, p. 49.)

Therefore, there is a two-tier planning system in six regions, and a general planning authority elsewhere in Scotland (see Figure Six). According to Cullingworth (1985) also, the former includes nine-tenths of the population of Scotland. However, functional interdependence between areas in Scotland seems to have been one of the basic considerations in light of which regions were proposed and spatially distributed. The Wheatley Report (1969, p. 167) stated:

> "It is now very widely recognised that there is interdependence between the cities and their surrounding areas, and that for a variety of local government purposes, of which planning and housing are the most obvious, even the city of Glasgow - the largest local authority in Scotland - can no longer be self-contained. We consider that a regional scale of local government should be constituted."

9.74 In terms of functions, regions are considered as strategic authorities and, therefore, responsible for regional planning functions: structure plans, all highways, public transport, education, social works and water. On the other hand, districts are responsible for local plans, housing and refuse collection and disposal (Carrick and Kirby, 1985).

> "Nevertheless there remains some blurring, particularly in relation to industrial development, tourism, countryside planning, recreation, museums and community centres, where the functions are exercised concurrently by regional and district authorities." (Cullingworth, 1985, p. 50.)

9.75 For our purposes, the Scottish Local Government can generally be viewed as two horizontal tiers; districts represent the lower and regions represent the upper. Despite the fact that "the framework within which the entire local authority system operates is laid down by statute determined by central government which now amounts to a mass of legislation, not all of which has been drafted with the specific end of town and country planning in mind" (Carrick and Kirby, 1985, p. 3), these tiers of planning authorities can be envisaged as almost opposite in terms of structure to the planning and other institutional system in Saudi Arabia (consult Figures One and Five). The system in Scotland provides for more adherence to planning at local levels, while the system in Saudi Arabia provides for planning for local areas and matters from national levels. On the other hand, the system in Saudi Arabia provides for better distribution of workloads, specialisation and connection with national levels: the highest decision-making level, by whom funds are issued and allocated. However, the structure of local planning authorities in Scotland has (as a whole) pragmatic and/or potential drawbacks, some of which are as follows:

i In principle, local plans "were initially intended to be the detailed elaboration on the ground of the policies of structure plans". (Cullingworth, 1976, in Keating and Boyle, 1986, p. 29). In practice, the former is allocated to districts (except in regions where districts have no

planning powers and in the three island areas) and the latter is allocated to regions: two independent bodies. This stimulates these two planning devices being less co-ordinated and integrated. Furthermore, cities get lost between local plans (which cover small areas within a city) and structure plans (which cover whole regions or conurbations). This was called by Wannop 1981 (according to Keating and Boyle, 1986) 'a gap in planning';

ii Likewise, allocating some functions (like social work) to regions and other related functions (like housing) to planning districts results in a separation of inter-linked planning aspects; and

iii The horizontal structure of planning authorities may encourage competition and individuality rather than co-operation. It is often heard that the British Central Government blames local authorities for problems which have occurred or are occurring at local levels. Furthermore, despite attempts to integrate the structure and local planning (as will be highlighted shortly), the system itself encourages competition between regional and district authorities, rather than integration and co-operation.

9.76 Although this study is not exhaustive to the extent of detailing how matters are handled by these two tiers and/or highlighting the roles played by other bodies in Scottish urban development (e.g. the Scottish Development Agency), it can allow us safely to argue that the structures of planning authorities in Scotland and in Saudi Arabia reflect two extremes: the former is composed of semi-independent horizontal tiers that pose potential problems in effective vertical co-ordination and in smooth movement

of funding, and the latter is composed of vertically-structured institutions that pose potential problems in horizontal co-ordination and in effective appreciation of problems and conditions at local levels. However, as far as Scottish development planning is concerned, National Planning Guidelines (produced at the level of the Secretary of State – the national level in Scotland), Structure Plans (produced by regional authorities) and Local Plans (produced by the planning district authorities) potentially provide for vertical co-ordination and integration of planning activities in Scotland – although this may not be perfect. This means that attention has been given in Scotland to co-ordinating the planning functions of independently elected horizontal regional and district authorities. So, despite drawbacks, the experience of local government reforms in Scotland suggests possibilities for getting the Saudi planning aspects and development programmes better co-ordinated, particularly at regional and local levels. Although the Saudi institutional structure may provide for better vertical cohesion, there is a clear need to enhance horizontal co-ordination at regional and local levels and to better co-ordinate inter-ministerial programmes for social and physical planning aspects. This lays the base for proposals which will be detailed in Chapter Eleven.

9.77 Finally, it is worthwhile – for later purposes – to summarise the findings of the studies made in this Chapter as follows:

1 *The Saudi national planning machinery underwent three consecutive reforms over the period 1959-1975 (refer to P. 9.19). The mid-1970s reforms gave birth to MOMRA and elevated the previous Central Planning Organisation to the*

current MOP, so as to respectively handle physical and economic planning obligations. A large number of ministries remain responsible for urban development programmes (education; health; housing; industrial; etc.). the whole process reflects the adherence given by the Saudi Government to development planning, as well as to ensuring that the institutions concerned were capable of handling the broadening development tasks that were spontaneously imposed by the impacts of the booming oil production and revenues; and

ii The Third Plan announced the need for more effective co-ordination of the inter-ministerial programmes: i.e. a need for more effective horizontal co-ordination. In this thesis, the need for better guidance of the ministerial action programmes by strategic ones has been demonstrated: i.e. a need for more effective vertical co-ordination. It is believed in this thesis that – unlike what is expected by the Third Plan – the potential institutional success of the proposed hierarchical centres will end up stimulating an identical distribution of ministry offices, but will be a passive policy as far as independently stimulating co-ordination of inter-ministerial programmes is concerned. This led to the suggestion of introducing two basic units to the Saudi institutional and planning system: a co-ordinating committee and regional development plans. As will be detailed in Chapter Eleven, these units will help the MOP and MOMRA to achieve better co-ordination between planning levels (national and local) on one hand and between planning aspects (economic and physical) on the other.

Bearing in mind the serious attempts made by these two institutions to achieve such co-ordination, this suggestion will be detailed later as alternatives to the hierarchical centres from the aspect of this particular aim of the Saudi regional policy. The experiences referred to (Scotland, Norway, British Key-Settlements, the Royal Commission for Jubail and Yanbu) advise on introducing such co-ordinating and development guiding units in the Saudi Institutional system.

Having in this part studied the potential economic, social, settlement and institutional implications of the proposed hierarchy of centres in the Saudi backward regions, Part Three will aggregate arguments to evaluate the potential viability of the policy (in Chapter Ten) and of the refinements to come, (in Chapter Eleven).

PART THREE: POTENTIAL VIABILITY OF THE POLICY AND THE NEED FOR REFINEMENTS

This part aims at answering two questions: first, is the proposed policy of hierarchical pattern of growth and development service centres in Saudi Arabia potentially viable?; and second, Is there a need for refined policy and, if so, what is it and how could it be implemented? Chapter Ten will evaluate the potential viability of the policy, with reference to conditions in Al-Baha, one of the backward regions for which help the policy is primarily proposed. In light of that evaluation, Chapter Eleven will then spell out proposals and examine methods of having them effectively implemented on the ground.

CHAPTER TEN: IS THE POLICY POTENTIALLY VIABLE?

10.01 As was stated from the beginning, it is the objective of this thesis to test the potential viability of the proposed hierarchy of centres as an approach to regional development in Saudi Arabia. The studies carried out and detailed in the previous areas of this thesis were designed to help in answering the question, as well as to help, in Chapter Eleven, in refining the proposals.

10.02 In order to answer this question, it is deemed essential to define the term 'policy viability' from the viewpoint of the purpose of this thesis. In light of such a definition, the potential prospects of success or failure of the policy can be judged.

WHAT IS MEANT BY THE TERM 'POLICY VIABILITY'?

10.03 Strictly speaking, viability is an economic concept

involving techniques which an investor can apply in order to assess the potential viability of investing in one of several available projects, e.g. Average Rate of Return (ARR); Payback Period; Net Present Value (NPV); and/or Internal Rate of Return (IRR). (Kauther, 1985). Choosing to apply one of these techniques, as opposed to another, depends primarily on the aim of the investor. For example, if he is interested in investing in the project which would pay his money and profits back within the shortest possible time, he could apply the techniques that would help him to elicit payback periods of the projects available and then choose in light of comparing results. Another example is that, if an investor is interested in earning comparatively higher profit in terms of today's value of money regardless of payback period and life-span of the project concerned, then the NPV's techniques would be comparatively the best of the four.

10.04 Setting aside detailing methods of calculations, the foregoing techniques tend to be applied purely in regard to the economic viability of projects. The question is: Can any of these traditional financial techniques be applied for our purpose?

10.05 For our interest, a policy can be judged to be viable if it can command sufficient resources and exert positive economic, social and settlement impacts simultaneously. Clearly, this definition may not wholly apply on small-scale projects – e.g. investing in a bank or building a residential unit. Acccordingly, the term 'policy' in the above definition is linked more with large-scale spatio-economic actions that tend to have obvious impacts on the environment and society in particular – e.g. building a major road or a large pollutant factory. However, our immediate attention is aimed at evaluating the viability of the

proposed hierarchical pattern of growth and development service centres in Saudi Arabia (with more emphasis on the Saudi backward regions) – a policy that also has institutional objectives. Accordingly, the above definition of the term 'viability' can be broadened to read as follows: a policy can be viable if it can command sufficient resources and exert positive economic, social, settlement and institutional impacts simultaneously. To be more precise, the term 'policy' here stands for the proposed hierarchy of centres throughout Saudi Arabia, our immediate concern. This definition is acceptable for our purposes, due to the fact that the concerned policy is proposed for multi-disciplinary objectives (refer to Chapters Six, Seven, Eight and Nine).

10.06 In light of the above broad definition for the term 'viability', the previously mentioned four techniques could only partially assess the viability of the proposed hierarchy of centres in Saudi Arabia because: first, those techniques can help to discover the financial viability of a project, but not about its social, settlement and institutional viabilities as well; and second, the proposed centres neither have pre-determined specific life-spans nor have they pre-determined magnitudes of investment: two requirements for applying any of the above mentioned four techniques. Alternatively, it might be suggested that the case is one for Cost-Benefit Analysis. However, applying Cost-Benefit technique for our purpose would require quantifying non-quantifiable variables: an action that would be built on a high degree of subjectivity. For example, it would be extremely subjective to quantify the cost of 'people of non-central places not being willing to move to centrally concentrated development services and jobs'.

10.07 Under these circumstances, it is desirable to separately evaluate the issues implicit in the larger policy rather than to subsume the issues in a single test or measure. Accordingly, viability will be assessed in respect of the potential ability of the system to simultaneously fulfill the economic, social settlement and institutional objectives that were initially stated for the policy. Therefore, these objectives will be kept in mind while assessing viability of the centres as spatial bases for industrial development services, ministry offices and other economic functions (e.g. tourism in some regions), as well as briefly viewing the hierarchy of centres with all the functions attributed to it.

THE POLICY AS PRIMARILY FOR INDUSTRIAL CENTRES

10.08 There is no functional logic in having industries hierarchically structured across space. On the contrary, the concept of hierarchical centres is not based on theories of industrial location and function (refer to Ps. 8.90 and 8.91).

10.09 As mentioned above, the policy is primarily proposed to help the Saudi backward rural areas in retaining their population and in stimulating development of local activities and potentials (refer to P. 8.44). The question, in view of the purpose of this particular section, is therefore as follows: Will conditions and development potentials in Al-Baha (assuming their representativeness to those in other Saudi backward regions) enable the proposed industrial growth centres to achieve their objectives?

10.10 The evaluation model illustrated by Figure One suggests that, in order for any concentration of industries to stimulate positive spatio-economic impacts on its surrounding areas, at

least the two pre-requisite stages need to be satisfactorily achieved: first, industries should establish and start functioning; and second, industries should continue effectively functioning for a period of time. As described in P. 6.43, at least four requirements should be satisfied in order for an industry, or a group of industries, to establish and start functioning: availability of Capital; Land; Labour and Raw Materials. In order for an industry or a group of industries to continue functioning, it is believed here that at least four requirements need to be adequately available: generous incentives (services, financial help, ... etc.); satisfactory levels of demand; profitable revenues; and continuous availability of raw materials and labour. Finally, in order for the concentrated functioning industries to exert positive spatio-economic impacts on their surrounding geographical areas, they must be able to stimulate mechanisms like external economies (i.e. functionally-linked with each other), polarisation of enterprises, spread of benefits (i.e. functionally-linked with local activities and factors of production) and creation of enterprises from scratch.

10.11 Regarding requirements for industries to initially establish and start functioning in the Saudi backward regions, the studies of conditions in the Al-Baha region demonstrated the following:

1 In terms of Capital, only a tiny proportion of the population interviewed would be interested in establishing individual enterprises if incentives became generously available in concentrated forms within the region. (refer to P. 6.83). Likewise, the rich people interviewed are mostly unwilling to establish enterprises in their region (Al-Baha) despite the possible provision for incentives

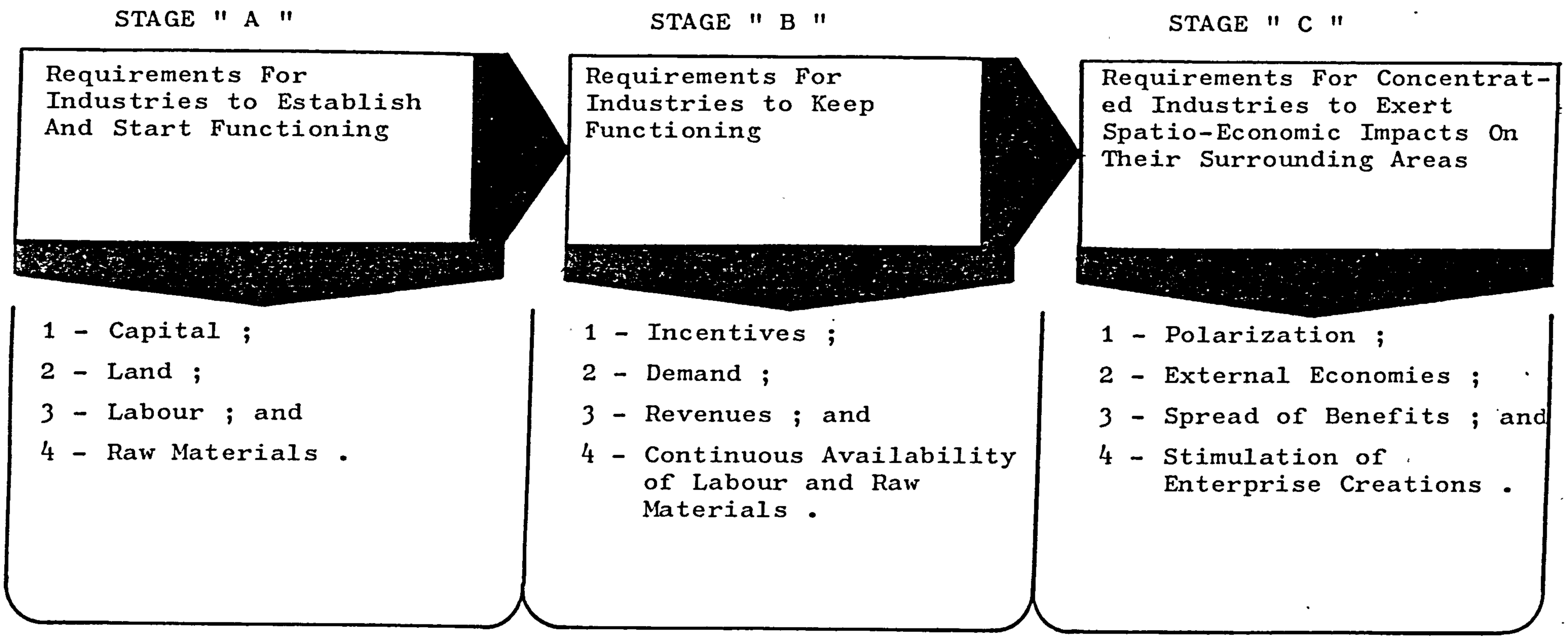
(refer to P. 6.86). · This was mainly attributed to the region's weak market conditions;

ii In terms of availability of extensive and accessible land, difficulties in assembling land for concentrations of investment at various levels of centres (land forms, land ownerships) are evidently a fundamental obstacle to implementation and effective functioning of the proposed hierarchy of centres. (refer to Ps. 8.116 and 8.121-8.126);

iii In terms of labour, availability of better paid and less demanding job opportunities, the overall Saudiisation policies and still noticeable migration of the male labour force from rural to urban areas, intensify the shortage of Saudi workforce. This highlights the potential inability of possible new industries to rely on Saudis as abundant, skilled and reasonably cheap labour, particularly at the early stages of the policy. The backward areas suffer also from noticeable social conservatism, inhibiting immediate and effective participation in industrialisation (refer to P. 7.46). In overall terms, despite the planned-for repatriation of non-Saudi workers (refer to P. 7.20), 49% of the total civilian employment in Saudi Arabia should still be occupied by non-Saudis in 1990 (refer to Table One, Chapter Seven);

iv In terms of the fourth factor of production, the absence of local raw materials led the factories interviewed in Al-Baha to rely mostly on imported materials from abroad transported through the sea-port of Jeddah – some 420 km away (refer to P. 6.65).

Figure One : A Model For Evaluating the Proposed Hierarchy of Centres As Spatial Basis For Non-Oil Manufacturing Industries in The Saudi Backward Regions



10.12 In light of all the above, factors of production are clearly not adequately available in the Al-Baha region. Experience of the region's enterprises demonstrates this argument, as shown in Chapter Six in particular.

10.13 The weak potentials of the Saudi backward regions to satisfy the requirements for initial establishment and functioning of industries, should automatically indicate that their potentials to satisfy requirements for continuous functioning of industries would be even weaker. Nevertheless, the thesis has gone further to evaluate the proposed centres as an industrialisation programme in the light of their potential to permit industries to continue functioning. These evaluations suggest the following:

i Continuous fostering of the proposed high number of centres must be in doubt in light of the uncertainties surrounding the future of oil markets; oil is the prime earner of Saudi revenues. (refer to P. 6.41);

ii The existing factories in Al-Baha over-satisfy the region's local levels of demand for the particular products that they manufacture. The proposed high number of industries would increase competition and supplies in the face of inelastic levels of demand (refer to P. 6.52). This could lead to less revenues and, therefore, to higher vulnerability of the region's enterprises to closure; the difficulty must be widespread in Saudi Arabia because conditions in Al-Baha are comparable to those in the other Saudi backward regions;

iii Possible lower prices due to stable demand levels in face of possible increased competition (refer to P. 6.52) and also factors like costs associated with transporting imported raw materials from sea-ports to distant areas (refer to P. 6.48)

and fluctuating prices of imported raw materials in both real and currency values' terms (refer to P. 5.53), could reduce revenues gained by industries in the Saudi backward regions. These also could occasionally increase the vulnerability of such backward regions' industries to closures ; and

iv Availability of raw materials and labour are requirements that must be adequately satisfied in order for industries to not only establish, but also to continue functioning. Inadequacy of these requirements in Al-Baha has been demonstrated in Chapters Six and Seven. Assuming representativeness of conditions in the Al-Baha region, these requirements are likely to be inadequately satisfied in most Saudi backward regions.

10.14 Therefore, similar to the requirements for industries to initially establish and start functioning, the requirements for industries to continue functioning are far from adequately satisfied in Al-Baha. Understandably, therefore, none of the factories interviewed in Al-Baha experienced any pressure to expand in terms of physical size and production level.

10.15 Having demonstrated the weakness of the Saudi backward regions to satisfy requirements of proposed centres' industries to both establish and continue functioning, Figure One suggests that the centres' abilities to exert any obvious spatio-economic impacts on their surrounding areas could be even weaker. The demonstration of this likelihood lies in these considerations:

i In terms of the abilities of the proposed centres to polarise out-of-region enterprises, only 2 of the 157 factories interviewed in Jeddah and Yanbu were at all

interested in relocating in the Al-Baha region, and only provided that similar incentives to those available for industries in the Yanbu and Jeddah industrial areas would also be available in Al-Baha (refer to P. 6.70). Actually, both factories would be pushed from their original locations by their inability to face direct competition with similar imported products, rather than pulled by any better conditions in Al-Baha. Similarly, the few within-region enterprises that are likely to be polarised by the proposed centres are mostly workshops, renting their current premises (refer to P. 6.75). This demonstrates the weak potential ability of the proposed Saudi backward regions' centres to polarise within-region and out-of-region enterprises;

ii Assuming representativeness of the conditions in Al-Baha, the proposed centres would find it hard to stimulate external economies in the Saudi backward regions. This is confirmed by the fact that the limited number of enterprises which would be polarised by the Al-Baha centres have no functional linkages among them: a factor that would not provide for stimulating benefits such as Perroux's propulsive industries (refer to P. 6.79);

iii Due to the absence of functional linkages among industries which would be polarised by the centres on the one hand (refer to P. 6.79), and on the other hand among industries and sectors of local societies and factors of production (e.g. employees are in the main not local inhabitants, refer to Table Seven, Chapter Five – and raw materials are mostly imported – refer to P. 6.65), the ability of the proposed centres to spread benefits to their surrounding geographical

areas would be extremely weak, or completely absent. Rather, functional linkages could be established between such industries and areas from which raw materials would be imported - and to which labourers would be sending some of their savings. Therefore, conditions which enabled the concentrated industries noticed independently by Perroux (1955), Myrdal (1957) and Hirschmann (1958) (i.e. functional linkages of industries with local labour and endowments) to spread benefits to their surrounding areas would be unlikely to arise with the proposed centres in the Saudi backward regions. There would be negligible trickling down effects and, therefore, a weak ability to stimulate spatio-economic developments in the backward regions, which is one of the main objectives for which this policy is proposed; and

iv It was demonstrated in Chapter Six, and referred to above, that these proposed centres would be ineffective in stimulating the creation of enterprises from scratch in the Saudi backward regions, assuming the representativeness of conditions in the Al-Baha region. (Refer to Ps. 6.83 and 6.85.)

10.16 To conclude, our evaluation indicates that the proposed hierarchy of centres faces several difficulties as an intensive industrialisation programme aiming primarily at providing for work-to-worker conditions, minimising regional economic and employment disparities and/or helping spatio-economic development of the Saudi backward regions. This is due to: first, inadequate conditions for industries to establish and start functioning; second, inadequate conditions for industries to continue functioning; and third, weak potential ability of centres to exert spatio-economic benefits on

their surrounding backward areas. However, the next section will view the centres as hierarchical concentrations of ministry offices and development services throughout the Saudi backward regions, for which help the policy is primarily proposed.

THE POLICY AS HIERARCHICAL CONCENTRATION FOR DEVELOPMENT SERVICES AND MINISTRY OFFICES

10.18 The Saudi Council of Ministers – at the head of which is the King – base their decisions in regard to the development of the country on Islamic Shariah principles (refer to P. 9.11). The Third Plan (1980-1985, p. 107) stated the objective for the Saudi regional strategy as:

> "... to assist the regions, and especially rural areas, to develop productive activities which will enable them to retain as many of their inhabitants as possible, and to extend the distribution of services to assist those communities with the potential for self-sufficiency, in accordance with the principles of Islam."

10.19 Accepting the opportunity costs that could associate them, avoiding further over-concentration of economic developments (particularly industries) in a few urban enclaves and reversing the impacts of the late 1970s worker-to-work conditions, are among the strategies adopted by the Third Plan (refer to Ps. 8.53 and 8.54). Such strategies were probably shaped in light of the Islamic Shariah Principles, that follow a middle path between any two extremes regarding decisions on matters of this life.

10.20 It is believed that enough has been said in Chapter Eight (in particular) to argue that the proposed hierarchy of growth and development service centres may help in minimising inter-regional disparities, but could intensify intra-regional disparities. The potential ability of the centres' concentrated enterprises to

spread benefits to intra-regional backward areas could be negligible. The proposed hierarchy of centres (refer to P.8.94will provide for extreme concentration of development services (e.g. Agricultural Banks, Chambers of Trade) and administrative ministry offices: these would be large employers and stimulators of spatio-economic development (refer to P. 8.91). Could this be at the expense of the remote backward areas at the intra-regional level?

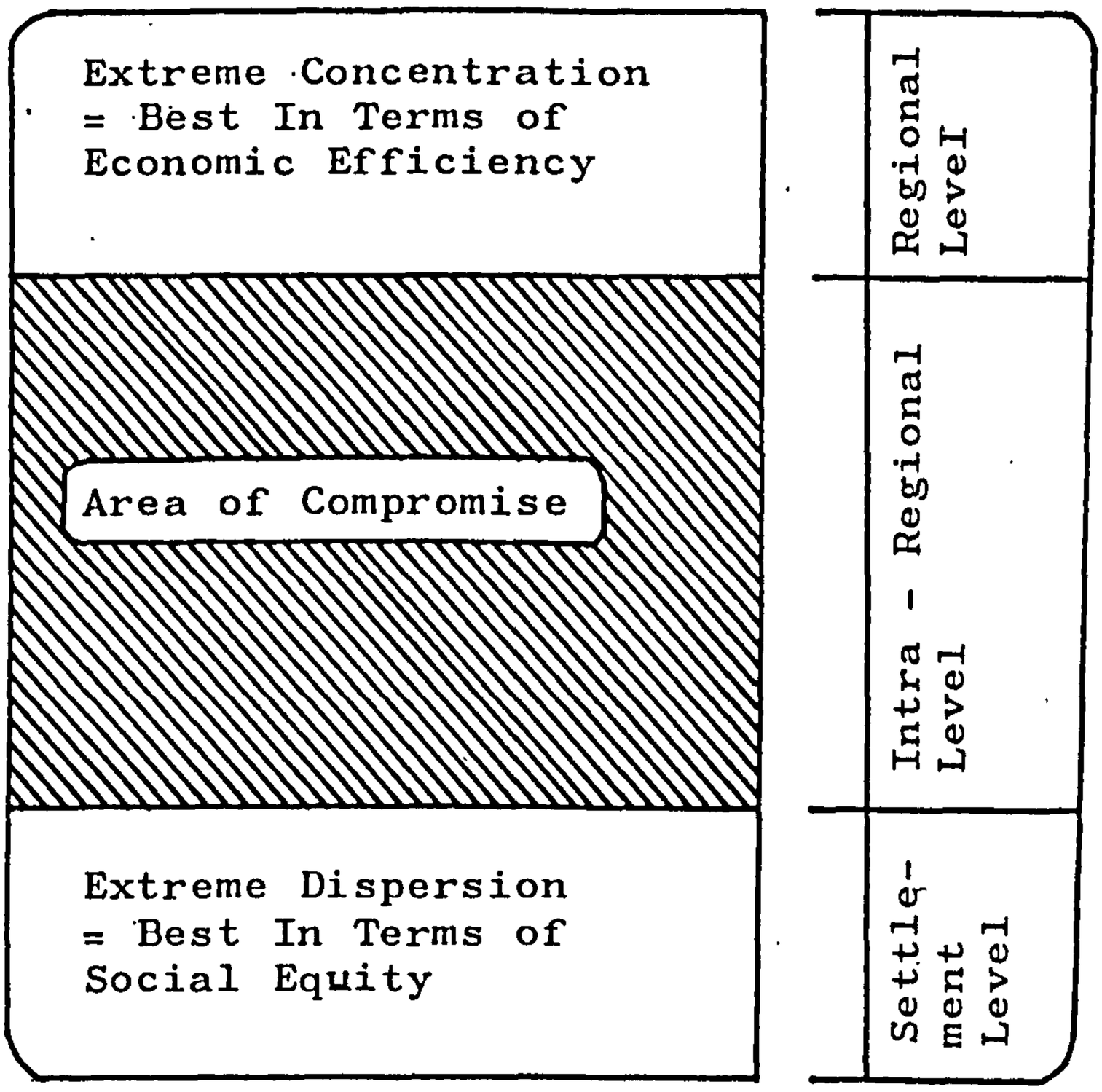
10.21 To evaluate the approach of extreme concentration of development services and administrative ministry offices (refer to Figure Three, Chspter Eight), from the perspectives of the policy objectives and Islamic Principles, Figure Two is provided. The Figure illustrates the trade-offs between the two extremes of dispersion and concentration of economic activities and development services. Extreme concentrations may be best in terms of economic efficiency (e.g. cost of infrastructure). However, this could be heavily at the expense of social equity: workers and service derivers will carry the burdens of transport costs, particularly in areas with inefficient transportation linkages. To the contrary, complete dispersion of such development service could be best from the point of view of social equity, but at the expense of economic efficiency (refer to Ps. 6.12, 6.13 and 8.15). The shaded area in Figure Two illustrates diagramatically the area of compromise - according to Islamic principles - in which actions should be made: i.e. neither extremely concentrating such activities at regional level nor dispersing them to the settlement levels, but acting between at the intra-regional level. Despite relying on subjective arguments, Figure Two can help in advising development strategies at regional levels.

10.22 The proposed policy incorporates concentration of

development services and administrative ministry offices in a few centres at the intra-regional levels (refer to P.8.94, and to Figure Three, in Chapter Eight). From the intra-regional perspective, this approach falls under the heading of extreme concentration (Figure Two). This will necessarily be at the expense of social equity in at least two ways: first, mechanisms of cumulative causation could continue favouring centres at the expense of backward peripheries (refer to 'iv', in P. 8.102); and second, in light of the demonstrated unwillingness of the non-central inhabitants to relocate in centres (refer to P. 7.51) and the inefficient transportation linkages at the intra-regional levels (refer to P. 8.106), inhabitants of the Saudi remote intra-regional backward areas will necessarily be disadvantaged. Therefore, this approach could not provide for work-to-workers conditions, or minimise disparities and/or stimulate development of local activities and potentials throughout the country. It would fail the main objectives for which the policy is proposed.

10.23 Concentration of development services and administrative ministry offices in hierarchical patterns is partially aimed at stimulating better co-ordination of intra- and inter-ministerial programmes (refer to Ps. 9.58-9.61). The need for having ministerial programmes better guided by strategic objectives (refer to P. 9.53), as well as for co-ordinating inter-ministerial programmes with each other (refer to P. 9.77), have already been demonstrated. It was argued that the proposed hierarchy of centres (refer to P.8.94, and to Figure Three in Chapter Eight) is likely to end up by stimulating identical spatial distribution of administrative ministry offices and development services, but is likely to be merely a passive approach as far as functional co-

Figure Two : Concentrations and Dispersions in View of the Trade-Offs Between Social Equity and Economic Efficiency



ordination is concerned (refer to P. 9.66). This argument should illuminate the proposed refinements in Chapter Eleven.

10.24 Having viewed the proposed centres as spatial bases for distribution of development services and administrative ministry offices, the next section will view them from the perspective of other functions, with special reference to tourism developments in the Al-Baha region.

THE POLICY IN VIEW OF OTHER FUNCTIONS: THE CASE OF TOURISM IN AL-BAHA

10.25 As was described in detail in Chapter Eight, the proposed centres are intended to provide for industrial development in almost all centres, as well as for development services, administrative ministry offices and other economic activities (e.g. agricultural developments in Kasim, tourism in Al-Baha). For the purpose of this section, the potential viability and potential consequences of having tourist developments (as an example) extremely concentrated in Al-Baha will be viewed from the perspectives of the objectives (economic; social; settlement) stated for the policy as a whole; occasional reference will be made to Figure Two. Therefore, tourism in Al-Baha is chosen to illuminate the possible impacts of having economic activities (other than industrial activities), extremely concentrated at the intra-regional level.

10.26 It is essential to stress that this section does not intend to extensively study tourism which is a relatively young discipline in Saudi Arabia, nor does it intend to deeply evaluate the tourism potential of the Al-Baha region. Rather - although without substantial evidence - the potential viability of tourism in Al-

Baha is assumed: this assumption is important for the purpose of this section. The intention here is to speculate about the potential viability of getting tourist activities spatially concentrated at the Al-Baha intra-regional level, as the proposed hierarchy of centres suggests. Nevertheless, tourism needs to be defined, and relevant literatures need to be consulted briefly: this is deemed important for better fulfillment of the purpose of this section.

10.27 What is tourism? Tourism may be thought of as:

> "... the relationships and phenomena arising out of the journeys and temporary stays of people travelling primarily for leisure or recreational purposes." (Pearce, 1987, p. 1.)

10.28 What benefits can tourism generate? Setting aside the discussion of benefits which could be generated by tourists in areas or terminals which may locate between what Miossec (1976) called the generating regions (origins) and the receiving regions (destinations), the positive impacts of tourism can primarily benefit the latter (Al-Baha in our case) through the possibility that:

> "These travel and stay attributes of tourism give rise to various service demands which may be provided by different sectors of the tourist industry so that, in an economic and commercial sense, tourism might be distinguished from other types of leisure activities." (Pearce, 1987, p. 1.)

10.29 What are the basic requirements for the development of tourism in a particular place? Whilst accepting that it could be an exaggeration to maintain that tourism can not progress at all in lack of basic facilities, the International Union of Official Travel Organisations (IUOTO, 1973, p. 1) wrote that:

> "In common with other sectors, tourism needs a basic system of roads, electricity supply, telecommunications, sewers, ..., airports, railways."

International tourism is presumably the one addressed in the above quotation. However, provision for basic services seems to be important also for the development of tourism at national, regional and/or inter-regional levels. Again, the intention here is not to evaluate whether such basic services are efficiently and readily available in Al-Baha. However, it is probably worthwhile for our later interest to notice that provision for the basic services required for tourism requires efficient horizontal co-ordination among the various institutions concerned: an argument that should help in illuminating the proposed institutional refinements in Chapter Eleven.

10.30 To gear arguments towards discussing tourist activities in Al-Baha, the findings of the Questionnaire Survey carried out by the researcher (in April and May 1988) for the four hotels in Al-Baha suggest the following:

i Three of the four hotels interviewed are located in Al-Baha Town: the administrative capital of the region and the proposed regional growth and development service centre. The largest hotel (in terms of employment and capacity) is owned by the Ministry of Finance and National Economy, while the second largest hotel is privately owned, but has been granted its site by the government: both of them are located in Al-Baha Town. The other two are privately owned. All four hotels are independent, and were initially established from 1982 onwards to respond to the needs of the gradually increasing number of tourists. This shows that - although not an important finding for our immediate purpose - the conditions and potentials of the region have been able to stimulate the creation of such tourist activities from

scratch;

ii In total, these four hotels employ 180 persons. Of them, 120 (or 67%) are local inhabitants. This demonstrates the roles of such activities as relatively significant employers, particularly in such backward and less populated areas; and

iii Occupancy ratio (occupied rooms as a percentage of the total of those available) remains at 100% throughout the whole summer period in all the hotels interviewed, but falls to 10-15% throughout the rest of the year. Summer tourists come mainly from warm cities which become congested during the pilgrimage times (e.g. from Jeddah, Madina, Makkah). However, despite their consecutive severe losses due to relying for the whole year on the profits gained during the summer, the interviewees independently agreed that the future of tourism in the Al-Baha region is potentially better than that of the manufacturing industries: this was mainly attributed to the fact that the region has natural potentials for the development of the former, but lacks potentials (e.g. raw materials, markets) for the development of the latter.

10.31 Disregarding discussion of many themes suggested by the above findings, having more tourist activities concentrated in Al-Baha Town (as a regional growth and development service centre) could - besides concentration of other development services, ministry offices and industries - stimulate more disparities at the Al-Baha intra-regional level. As many as 162 (or 90%) of the above-mentioned 180 hotel employments are provided in Al-Baha Town. Other cumulative causation mechanisms might have been generated by

such hotels in favour of Al-Baha Town at the probable expense of further backward areas in the region.

10.32 But, one might argue that Al-Baha Town is the best location (in terms of natural potentials) for such tourist developments (i.e. hotels). However, the available data does not suggest support for such an argument. Forests are the prime tourist attractions in the Al-Baha region. According to Finnplanco (1985), there are 40 forests in the region, of which 21 are publicly owned. In all, these forests equal 9,892 hectares. Considering the Al-Baha region as seven geographical areas, Table One shows clearly that Al-Baha Town and its surroundings include only 1,660 hectares (or 17%) of the aggregate area of forests in the region. Setting aside the availability of the previously discussed basic services, this (as one of the local potentials for which development of the proposed hierarchy of centres is intended) does not advocate concentrating tourist activities (e.g. hotels) in (for example) Al-Baha Town: the natural potentials for tourism developments are spread throughout the region. Spreading tourist activities could enable the policy to better stimulate the development of local tourism potentials, provide for work-to-workers conditions, and ultimately minimise the intra-regional disparities and stimulate spatio-economic developments throughout the region: all are explicit and/or implicit aims of the proposed hierarchy of centres.

10.33 The pragmatic studies that were reviewed by Pearce (1987) arrived at similar arguments to those mentioned above. He wrote (on p. 205) that:

> There seems little doubt that many of the negative impacts attributed to tourism have been accentuated by the process of concentration ... the benefits of tourism, such as increased job opportunities and higher revenues, may be limited to only a few areas.

Table One: Distribution of Forests in the Al-Baha Region, in 1982

Geographical Province	Area of Forests * (Hectares)	% out of ** Total Forest Area in the Region
Al-Baha	1,660	17
Baljurashi	1,119	11
Al-Mandak	1,322	13
Al-Atawelah	1,726	17
Al-Akik	1,135	11
Al-Makwah	1,013	10
Kilwah	1,917	19
Total	9,892	100

Source: * Finnplanco, 1985. Existing Conditions in Al-Baha. Report No. 2, p. 68. Arabic version.
** Calculated by the Researcher: Summation Errors are due to Roundings-up.

> In some cases where the concentration of tourist activities drains investment capital, services and population away from other areas, tourism may lead to a dual economy or heighten regional imbalances."

10.34 Referring to Figure Two, concentrating tourist (or other, e.g. agricultural) activities in a single or a few places at the intra-regional level is an approach that is likely to be at the expense of social equity, as well as at the expense of development of local potentials throughout such a backward region, provided that resources of potential economic activities (e.g. agriculture; tourism) are spread generally across the region concerned. Therefore, the approach of concentration implied by the policy does not have the potential to live up to the social, settlement and economic objectives and expectations that were stated for them by the National Plan.

10.35 Finally, as argued above, this study should not be treated as an exhaustive one for tourism in Al-Baha. The viability of tourism in Al-Baha is assumed, rather than proved. Nevertheless, this study is deemed capable of illuminating proposals in Chapter

Eleven. However, having viewed the proposed centres for the separate purposes of industrial use, concentrations for development services and ministry offices, and spatial bases for other economic functions (e.g. tourism in Al-Baha), the next section will briefly view the potential viability of the centres as a spatial basis for all the functions attributed to them.

AN AGGREGATE VIEW

10.36 In aggregrate terms, P. 8.102 raised several questions about the viability and functional logic of having centres that are intended for significantly different economic activities fitting a single hierarchy across geographical space. The Paragraph ended by warning that the settlement and social objectives of the policy could be frustrated when it comes to evaluating and upgrading, or downgrading, centres in the hierarchy because different functions have non-comparable potential impacts on the social, economic, and settlement objectives of the policy. (Refer to P. 8.102.)

10.37 Indeed, economic activities (manufacturing; tourism) do not require to be hierarchically or identically structured across space for reasons already put forward in P. 8.100.

10.38 The potentials of the Saudi backward regions for development of non-oil manufacturing industries in regard to such factors as labour; capital; land; raw materials; markets have been seen to be fairly weak – assuming the representativeness of the conditions in the Al-Baha region. Without strong measures the rural centres are unlikely – as primarily industrial centres – to live up to the expectations of the Development Plans in terms of polarising and spreading benefits to their surrounding backward areas, providing for work-to-worker conditions, minimising regional disparities

and/or helping the diversification of the Saudi economy.

10.39 Al-Baha – as a backward region – has been suffering from the impacts of concentration of public sector employment (in particular) in the two towns of Al-Baha and Baljurashi. Table Two shows clearly that, by the year 1982, 64% of total public sector employments as provided in these two towns, while the remaining 36% asw distributed among the remaining 1,234 settlements in the region. It is probable that the proposed policy will intensify such a situation in the long run.

Table Two: Share of the Two Towns of Al-Baha and Baljurashi in the Total and Public Sectors' Employments in the Al-Baha Region in 1974 and 1982

	Total Employment*			
	1974		1982	
	No.	% of 'All Region'	No.	% of 'All Region'
Al-Baha Town	6,118	19.0	13,320	27.3
Baljurashi Town	6,917	21.5	11,060	22.7
Rest of the Region	19,171	59.5	24,450	50.0
All Region	32,206	100.0	48,830	100.0

	Employments in Public Sectors			
	1974**		1982***	
	No.	% of 'All Region'	No.	% of 'All Region'
Al-Baha Town	2,422	42.5	7,800	38.0
Baljurashi Town	1,402	24.5	5,360	26.0
Rest of the Region	1,876	33.0	7.560	36.0
All Region	5,700	100.0	20,720	100.0

Source: * Finnplanco, 1985. Report 2 and 3, p. 86, Arabic version.
** As above, p. 88.
*** As above, p. 90.

10.40 Figure Three provides brief details concerning type, function and location of the ministry offices – with particular emphasis on their regional headquarters – within the Al-Baha

region. It would be ideal for our immediate purposes if we had statistics to measure the extent to which each of these offices was a comparatively significant employer in such a backward region. Nevertheless, as an indication of their aggregate importance from this viewpoint, these ministry offices - together with their services - represented the public sector in the Al-Baha region, which provided 20,720 (or 42%) of the total of 48,830 employments within the region in 1982 (refer to Table Two). Table Two demonstrates that most of these public sector employments were concentrated in the two large towns of Baljurashi and Al-Baha. Figure Three suggests that this is causally linked to having regional headquarters' ministry offices (in particular) concentrated in these two towns. This indicates - albeit only in aggregate terms - that those ministry offices - and in particular the regional headquarters - were significant employers and, hence, spatio-economic stimulators.

10.41 The proposed policy (refer to P. 8.94 and to Figure Three, Chapter Eight) will stimulate a greater concentration of ministry offices in, for example, Al-Baha Town. This will favour centres at the expense of the more backward *peripheries: an approach that* could - unlike that which the Saudi regional development strategy attempts to achieve - intensify development disparities across the Saudi rural geographical area. Already, the remote (or non-central) backward areas of Al-Baha suffer from extreme concentration of significant employers. The questionnaire survey carried out by the researcher in April and May (1988) showed that, of the 55 public sector employees who lived in Qezzanah - the study village within Al-Baha, 49 (or 89%) worked outwith the village (refer to P. 7.52). Of them, 38 (or 78%) commuted daily to work in

Al-Baha Town – some 80 km. away. In light of the unwillingness demonstrated by rural non-central inhabitants to relocate in centres (refer to P. 7.51), extreme concentration of public employments was – although advantageous from the point of view of economic efficiency of agglomeration – at the expense of social equity at the intra-regional level, particularly in view of the inefficient transport links in such backward regions (refer to P. 8.107).

Figure Three: The Ministry Offices in the Al-Baha Region: Functions and Locations

Ministry Office	Functions	Location, Within Region
The Directorate for Water and Agriculture	Executes the agricultural and water development programmes, prepared by the Ministry of Agriculture: e.g. builds dams; digs wells; etc. The branch offices provide advisory services to farmers, while the Directorate implements the regional development programmes. The SAAB provides loans for machinery and other purposes to farmers on behalf of the Directorate (refer to P. 9.37).	The regional head-quarter (i.e. the Directorate) is located in *Al-Baha Town*, while the 6 advisory branch offices are located in other towns within the region, the largest of them being located in *Baljurashi*.
Roads Administration	Builds and maintains roads and bridges in accordance with the development programmes as specified by the Ministry of Transportation. It has no branch offices within the region.	Located in *Al-Baha Town*
Administration of Education	Builds and maintains schools; provides educational equipment; appoints staff and evaluates educational progress. It acts in accordance with the programmes prepared by ministry national office in Riyadh. The branch	The regional head-quarters (i.e. the Administration) are in *Al-Baha Town*, with approximately 7 branch offices located in large towns within the region; the largest branch offices are in *Baljurashi* and *Makwah*.

	offices assume some of the tasks of the Administration, each within its own geographical jurisdiction.	
Directorate of Health	Acts in accordance with the plans prepared by the office of the Ministry of Health in Riyadh, regarding the building and operation of public health centres and hospitals, and licensing private pharmacies and hospitals. It has no branch offices within the region.	Located in *Al-Baha Town*
The Saudi Electrical Company	Supplies the region with electricity, in accordance with the programmes of the Ministry of Industry and Electricity. It has 2 branch power stations in the region.	The main power station (employing more than 350 persons) is located in Bani Sar, *Al-Baha Town's* commercial area.
Court Administration	Ensures application of Islamic Shariah laws in judging disputes and settling conflicts. The courts act under the direction of the Administration, each within its own geographical jurisdiction. Complicated cases may be referred up the hierarchy to the supreme court in Riyadh which represents the national office of the Ministry of Justice.	The regional headquarters (i.e. the Administration) is located in *Al-Baha Town*. 8 courts are located in other large towns within the region, the largest of which is in *Baljurashi*.
Offices of the Ministry of Interior	Responsible for security affairs, covering a wide range of aspects.	*Imarates: the regional headquarters are located in *A-Baha Town*, with 30 branch offices in other Al-Baha towns (refer to P. 9.17); *Police Directorate: located in *Al-Baha Town*; *Traffic Administration located in Al-Baha Town* with branches in 4 other towns; responsible for regulating

		traffic (all offices) and also for issuing driving licences (the regional headquarters office); *Civil Aviation: located in *Al-Baha Town*, with 3 branch offices in other towns within the region; responsible mainly for fire-fighting; *Passport Administration: located in *Al-Baha Town*; and *Nationality Administration: the regional headquarters are located in *Al-Baha Town* with 5 branch offices located in other towns within the region, the largest being in *Baljurashi*.
Municipalities	Regulate physical development in towns, in accordance with regulations and programmes of MOMRA: e.g. issue building permits; pave and clean minor roads; etc. The regional headquarters have more extensive responsibilities: e.g. organizing the annual tourist programmes; helping the development and/or planning consultants occasionally appointed by MOMRA to carry out particular development tasks in the region.	The regional headquarters are located in *Al-Baha Town*, while 4 smaller municipalities are located in other large towns, the largest of them being in *Baljurashi*.
Directorate of Public Works and Social Affairs	Directs employees to public employments; settles conflicts in public works; and distributes social benefits to people in need.	The regional headquarters are located in *Al-Baha Town*, with 2 social benefit offices in *Baljurashi* and *Makwah*.
Directorate of Endowments	Builds and maintains public mosques, and licences and maintains privately-built mosques, in accordance with the programmes of the national office of the Ministry	The regional headquarters are located in *Al-Baha Town*, with a branch office in *Baljurashi*.

	of Pilgrimage and Endowments in Riyadh.	
Directorate of Posts, Telegraphs and Telephones	Implements the plans of the Ministry of Posts, Telegraphs and Telephones with regard to providing, maintaining and collecting payment of bills for such services.	The reginal headquarters (i.e. the Directorate) is located in *Al-Baha Town*. It supervises the operation of more than 18 post offices in the region.

Notes: * These ministry offices are – in themselves – not services required by ordinary citizens, but are administrative offices that provide and maintain public services: exceptions being the courts, the post offices and the local agricultural advisory offices.
* These offices are mainly executive bodies, while the programme and decision-making offices are located in Riyadh.
* For more information, reference may be made to Figure Two, Chapter Nine.

Source: Developed with reference to Finnplanco (1985), Report No. 2, pp. 11-21, Arabic version.

10.42 Figure Three shows that the Al-Baha ministry offices are mostly administrative, unlike some of the frequently-needed services provided by some of them, not directly and/or frequently used by the general public: a few exceptions are listed in the notes under Figure Three. For example, the general public frequently use primary schools, health centres and roads, but only of few regularly and directly use the Directorates of Education/Health/Roads (or any of their administrative branch offices) who provide and maintain these services. This argument supports the advocation of the dispersal of administrative ministry offices (significant employers and spatio-economic development stimulators) throughout each of the backward regions, in order to help the Saudi regional policy to achieve better standards of social equity (refer to Figure Two): this suggestion will be further explained in Chapter Eleven. However, there is a need for

research that could – beyond the purpose of this thesis – explore the extent to which such an approach could be applied to some of the highly significant population-linked services (i.e. the services which are not frequently required by the general public, which require to be exposed to a high number of customers in order to achieve satisfactory economic threshold measures – such as airports, colleges, specialized hospitals, large libraries, etc.): these also tend to be significant employers and development stimulators.

10.43 *As in the style followed in all the other chapters, it is potentially helpful for illuminating proposals in Chapter Eleven, to conclude the main findings of this Chapter as follows:*

i The proposed hierarchy of centres faces several potential difficulties as an intensive industrialisation programme in the Saudi backward regions, due to; first, inadequate conditions for industries to establish and start functioning; second, inadequate conditions for industries to continue functioning; and, third, weak potential ability of the centres to exert influence on their surrounding spatio-economic impacts (refer to P. 10.17 and to Figure One). This will not help the Saudi regional development strategy to provide for work-to-worker conditions which could help rural areas to retain their population, unlike the effect anticipated by the Third Development Plan;

ii Through advocating extreme concentration of development services and ministry offices, the policy would lead to employing the mechanisms of development cumulative causations in favour of centres at the expense of remote backward peripheries. This will not help in achieving the

regional aim of overcoming development disparities, at inter- and intra-regional levels (refer to P. 10.21 and to Figure Two);

iii Similarly, concentrating other economic activities (e.g. industrial, agricultural) in hierarchical centres will - besides the absence of a functional logic behind so doing - not help in targeting investments to potentials nor, therefore, in better participating in the achievement of the long-term goal which aims for the diversification of the Saudi economy;

iv It is believed in this thesis that the institutional success of the proposed hierarchical centres will result in regulating spatial distribution of ministry offices, but will be passive as an independent stimulator for more effective co-ordination of the inter-ministerial programmes: an aim of the policy (refer to P. 10.23);

v The proposed hierarchical centres will potentially stimulate overlooking the settlement and social aims of the policy when it comes to evaluating the centres' performances for the purpose of upgrading or downgrading their ranks (refer to P. 10.36); and

vi In overall terms, the policy of hierarchical centres is proved in this thesis to be potentially unable to fulfill the expectations of the multi-disciplined objectives (social; e.g. helping the deprived population and areas: economic; e.g. helping the diversification of the national economy and the utilisation of the infrastructure services: settlement; e.g. eliminating inter- and intra-regional disparities: and institutional; e.g. stimulating more

effective co-ordination of the inter-ministerial programmes) stated for it by the national plans.

Therefore, the intention now will be to retain the aims of the Saudi regional development strategy, but to seek alternative approaches to development in the Saudi backward regions that can potentially better achieve those aims, from the aspect of all functions (provision for industrial and other economic activities; spatial distribution of development services and ministry offices) attributed to the relaxed hierarchy of centres. Chapter Eleven will next study these refinement issues.

CHAPTER ELEVEN: POLICY REFINEMENTS: IDENTIFICATION, EVALUATION, SELECTION AND IMPLEMENTATION

11.01 *Chapter Ten utilised the evidence adduced by the research to evaluate the potential viability of the proposed hierarchy of growth and development service centres as an approach to development of the Saudi backward regions, which is the aim of the thesis (refer to P. I.09). Briefly, the evaluation demonstrated the limited potential of the policy of a hierarchy of centres in terms of the economic, social, settlement and institutional objectives initially stated for it. Accordingly, this Chapter aims at prescribing some refinements designed to give a better opportunity for the multi-disciplined aims stated for the hierarchy of centres to become achievable.*

11.02 *As explained in detail in Chapter Eight, there are various functions attributed to the proposed hierarchy of centres – i.e. to non-oil manufacturing industries; other economic activities (e.g. agriculture, tourism); and hierarchical concentrations of development services (e.g. agricultural banks) and ministry offices. Consideration of refinements to this policy may discover how to provide for development of these economic functions, in order to increase the probability of achievement of the range of the multi-disciplined objectives stated by the Saudi national plans for the relaxed hierarchy of centres.*

11.03 *This Chapter will comprise five sections. Alternatives to the relaxed policy from the aspect of development of the non-oil manufacturing will first be identified and evaluated. The second section will evaluate and select refinements to the policy from the viewpoint of development of economic activities other than the non-oil manufacturing industries (e.g. tourism, agriculture).*

Alternatives to the relaxed policy will then be identified and evaluated from the point of view of spatial distribution of development services and ministry offices. The fourth section will then evaluate the aggregate potential implications of the three selected alternatives, taking account of the fundamental aims of the Saudi strategy, of the relaxed hierarchy of centres. Having done so, the fifth section will evaluate and select from alternative refinements to the hierarchy of centres, taking into consideration better co-ordination of the inter-ministerial programmes. It then briefly suggests how the selected refinements to the relaxed policy could be implemented on the ground.

REFINEMENTS TO THE POLICY FROM THE ASPECT OF DEVELOPMENT OF NON-OIL MANUFACTURING INDUSTRIES

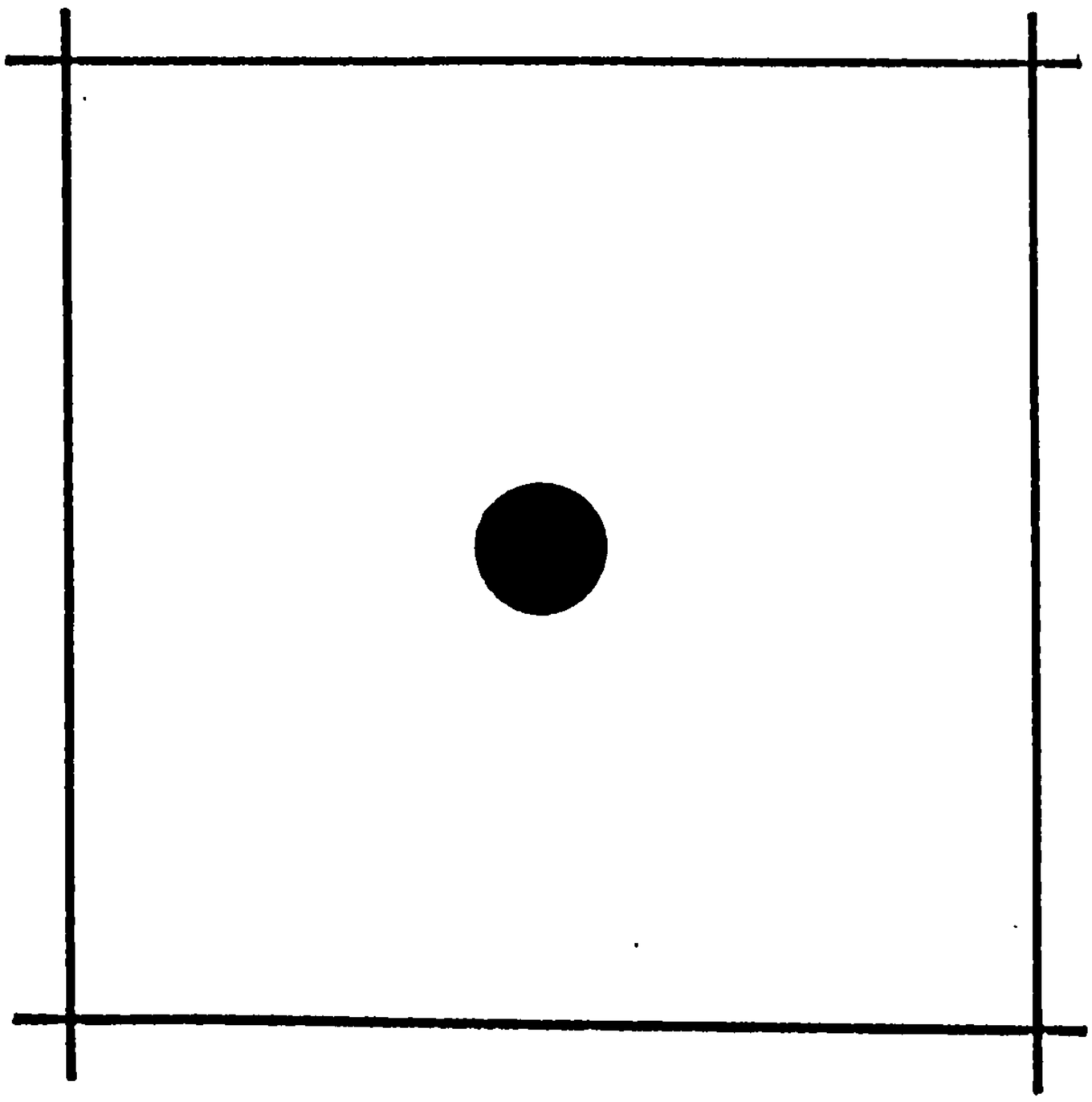
11.04 The hierarchical concentration of non-oil manufacturing industries in the Saudi backward areas is an approach consistent with the policy of hierarchy of centres, but found to be not viable from the point of view of its potential ability to achieve its aims (refer to Ps. 10.08 - 10.17). The following few paragraphs will suggest, evaluate and then select from two possible refinements to the policy.

11.05 Refinement (A): 'Relax the Proposed Hierarchical Centres and Concentrate Non-Oil Manufacturing in a Single Area Within Each of the Backward Regions'.

Advantages:

1 As far as cost of infrastructures and other related services is concerned, concentrating industries in a single tightly-

Figure One : Refinement (Λ) to the Policy From the Aspect of Development of Non-Oil Manufacturing Industries in the Saudi Rural Regions ; Schematic Illustration



● A Single Regional Place , Where - in View of this Refinement - Industrial Developments Could Be Extremely Concentrated . The Place is Represented in the Centre of the Schematic Region to Hint to the Importance of Accessibility to Within and Outwith-Region Markets : e.g. Al-Baha Town (see Fig. Three, Chapt. Eight)

* To Compare With the Proposed Policy in Al-Baha, Refer to the Figure Mentioned Above (i.e. to Fig. Three, Chapt. Eight)

defined area in each of the backward regions (Figure One) is potentially more efficient than dispersion. This could be advantageous for an economy which relies on a single revenue earner (refer to 1, P. 10.13); and

ii At least in principle, large concentrations of incentives and industries (Figure One) can more effectively stimulate the advantages of the economics of agglomeration, and of scale, provided that industries are functionally linked with each other and with local factors of production.

Disadvantages:

i It is not a matter of concentrating industries in a single, or in several places in the Saudi backward regions, but rather a matter of questioning the potential viability of the policy of concentrated industries in those regions from the aspect of their ability to grow. Scarcity of rural capital, labour, raw materials (refer to P. 10.11) as well as inadequacy of market conditions (refer to ii, P. 10.12) - all basic factors of production - have already been demonstrated. These should be perceived as potential constraints to the establishment and then to the continuous functioning of industries - whether concentrated or dispersed - in the Saudi backward regions;

ii Similarly, the potential ability of concentrated industries in the Saudi backward regions to polarise within-region and/or out-of-region enterprises (refer to i, P. 10.15), to generate the advantages of Perroux's propulsive industry (refer to ii, P. 10.15), to spread benefits to their surroundings (refer to iii, P. 10.15) and to stimulate the creation of enterprises from scratch (refer to iv, P. 10.15)

have been found to be weak. In this instance, concentrated industries in the Saudi backward areas are potentially unable to achieve the expectations of the goals of the Saudi regional strategy, represented by the relaxed hierarchy of industrial centres. Therefore, there is no point in relaxing a policy (the hierarchy of centres, refer to Figure Three, Chapter Eight) for its potential inability to achieve those aims, and then to suggest an alternative policy (Figure One) which is potentially unable to attain any noticeably better consequences; and

iii In view of, first, the inadequate availability of factors of production and, second, the uncertainty surrounding oil markets and prospects for continuous fostering of the concentrated industries, Saudi rural industries would be vulnerable to closures if public incentives were discontinued. If that happened, then the regions concerned would lose their image and confidence, and would no longer be only backward but also depressed: enterprises, labour and other factors of production may desert them again. This would be against one of the fundamental aims of the Saudi regional strategy: to minimise regional disparities.

11.06 Having briefly listed the potential advantages and disadvantages of the first possible refinement (Figure One) to the relaxed policy of hierarchy of industrial centres (Figures Two and Three, Chapter Eight) from the aspect of the manufacturing developments in the Saudi backward areas, the same procedure will next be applied to the second possible refinement to the relaxed policy from the point of view of the same economic function.

11.07 Refinement (B): 'Concentrate the Non-Oil Manufacturing Industries in the Port-Cities Only. Meanwhile, Encourage the Establishment of Individual Rural Industries Wherever and Whenever Viable Linkages with Local Factors Of Production And Market Conditions are Reasonably Demonstrated'.

Advantages:

i The Saudi Port Cities (e.g. Jeddah, Dammam, Yanbu, Jubail - refer to Figure Four, Chapter Four) have comparatively the best accessibility to foreign raw materials and markets. Furthermore, such cities are likely to continue - at least in the foreseeable future - to enjoy comparatively better availability of labourforce in consequence of the massive rural-urban migration; this could partially compensate for any loss of labourforce due to the long-term goal of employment Saudiisation (refer to iii, P. 10.11);

ii Obviously, factors of industrial production (e.g. labour, raw materials, market conditions) are comparatively better in these port cities. Potentially, it is more likely that those urban industries could - having become established - remain functioning even in the case of public incentives being spontaneously or deliberately minimised or removed - due to probable deterioration in the oil markets;

iii Having demonstrated that industrial concentrations in the Saudi backward areas are potentially unable to effectively assist the national economy - because they are unlikely to to remain viably functioning, nor are they potentially capable of improving social equity - because they are unable to spread benefits to the surrounding backward areas,

concentrating industries in the port cities, becomes more sensible. This would at least potentially benefit the national economy, regardless of the weak potentials of having such concentrations spreading benefits to their surroundings, or to the other backward areas (refer to the studies made of the experiences of Yanbu and Jeddah industries, Chapter Five); and

iv Licensing only those industries which have effective linkages with local factors of production (labour, raw materials, market demands) in the rural areas is suggested as a refinement, which could potentially help rural industries. First, helping them to survive, even in the case of public incentives being reduced or withdrawn; second, to spread benefits to their surrounding backward areas through the channels of the factors of production (refer to P. 3.40); and third, to stimulate self-protection against exogenous competition, since additional transport costs are likely to fall on similar products from other regions that may attempt to invade the markets of the backward regions concerned.

Disadvantages:

i Disregarding for the moment the weak potential viability of industrial growth in the Saudi rural areas, concentrating industries in the port cities only (refer to Figure Four, Chapter Four) is unlikely to effectively benefit the backward areas. As argued above, the experiences of Jeddah and Yanbu (Chapter Five) demonstrated this point. Therefore, cumulative causation will continue to favour such cities at the expense of peripheries (i.e. rural areas).

Although built on sensible grounds, this refinement is unlikely to bring about reduced regional disparities, which has been a fundamental aim of the Saudi regional strategies;

ii Accordingly, as far as manufacturing industrialisation is concerned, the Saudi rural areas will – should this refinement be accepted – continue to lose factors of production (e.g. industrial labour and investments) to such cities.

11.08 Which Refinement to Choose?: Comparing the advantages and disadvantages of the above two suggested refinements to the relaxed hierarchy of industrial concentration in the Saudi backward regions (refer to Figures Two and Three, Chapter Eight and to P.8.94), would indicate choosing Refinement (B). This decision is basically made in light of the speculations about the potential availability of the factors that could enable the selected refinement to achieve the same objectives stated for the relaxed policy.

11.09 Obviously – as suggested above – concentrating industries in the port cities, and permitting in the rural areas only those industries linked to local factors of production and market conditions, may help the national long-term goal of diversifying the Saudi economy, but may not effectively help the Saudi regional strategy to fulfill its social equity aims: i.e. stimulating spatio-economic development of the backward areas; providing for work-to-worker conditions; minimising the regional disparities. However, concentrating industries in the backward areas has also already been proven potentially unlikely to stimulate the achievement of those objectives in the rural areas, nor would they – unlike the case with this refinement – effectively help in diversifying the Saudi economy.

11.10 However, we still have in hand the economic developments other than industries (e.g. agriculture; tourism) and the spatial distribution of development services (e.g. agricultural banks) and ministry administrative offices: two other functions attributed to the relaxed hierarchy of centres (consult Figure Three, Chapter Eight). Would the refined policies be able to employ these functions in a way that could enable the Saudi regional policy to achieve its regional equity aims? To answer this, the next two sections will respectively state, evaluate and select from alternative refinements to the relaxed policy from the aspects of: first, development of economic activities other than manufacturing industries; and second, spatial distribution of development services and ministry administrative offices in the Saudi backward areas.

REFINEMENTS TO THE POLICY FROM THE ASPECT OF DEVELOPMENT OF OTHER ECONOMIC ACTIVITIES IN THE SAUDI BACKWARD REGIONS

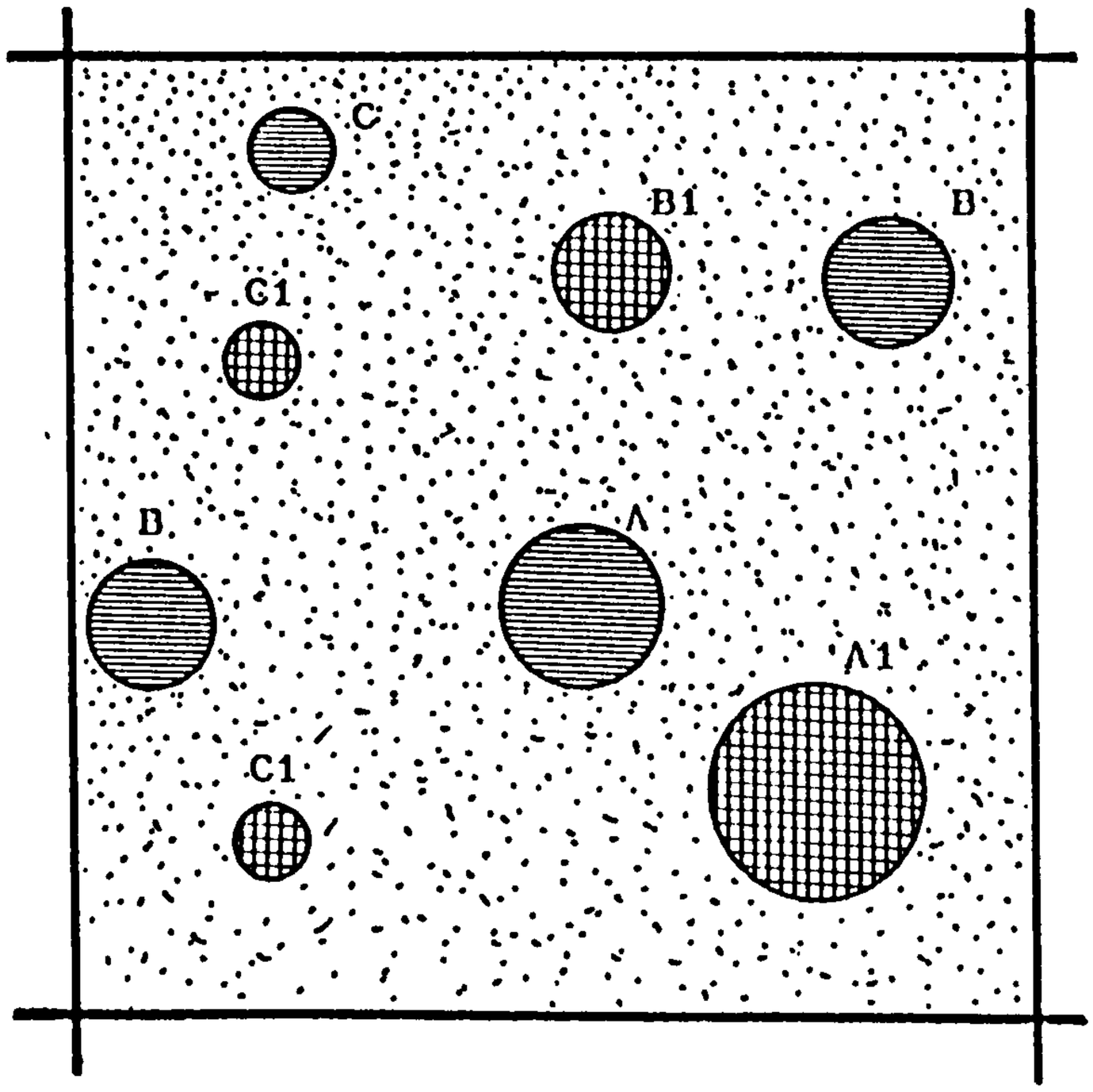
11.11 The following paragraphs will suggest, evaluate and select from two possible refinements to the relaxed policy from the aspect of the potential viability of hierarchically concentrating economic activities (other than industrial) in the Saudi backward areas.

11.12 Refinement (A): 'Provide in the Saudi Backward Regions for Independent Hierarchical Distribution of Individual Economic Activities'.

Advantages:

i Splitting the unified hierarchical concentration of different economic activities (e.g. agriculture, tourism) into independent hierarchies (see Figure Two) is more likely

Figure Two : Refinement (A) to the Policy From the Aspect of Development of Activities Other Than Industries in the Saudi Rural Regions ;Schematic Illustration



Agricultural Centres : A1,B1,C1 are Centre Ranks in the Independent Agricultural Hierarchy

Tourism Centres : A,B,C are Centre Ranks in the Independent Tourism Hierarchy

Areas With no and/or With Low Potentials For Economic Development that maybe too Small to be Clearly Ranked In Either of the two Hierarchies

Notes:
* Agricultural and Tourism Developments are Only Examples; There Might Be Other Potentials - e.g. Mining.
* A Single Centre May Simultaneously Function as Tourism and Agricultural Area (for example) , Whenever it has Potentials for so : in such a Case , the two Functions May not Occupy Similar Ranks in the Independent Hierarchies
* Existing Towns (Including Al-Baha : the Selected Regional Centre in the Al-Baha Region - Refer to Fig. Three, Chap. Eight) Can Be Among Those Centres Only if They Have Viable Potentials to Be As Such

For Comparison With The Proposed Policy in Al-Baha , Refer to Figure Three , Chapter Eight.

to mitigate intra-regional disparities and provision of work-to-worker conditions; and

ii It is unlikely that potentials for all sorts of economic activities are identically distributed throughout the Saudi backward areas. Therefore, deserting the extreme hierarchical concentration of various economic activities - as suggested by the relaxed policy (refer to Figure Three, Chapter Eight) - for a hierarchy for each economic activity (see Figure Two), is potentially capable of targeting of investment to potentials and, consequently, proving more beneficial to the spatio-economic development of the backward areas.

Disadvantages:

i Development of economic activities - although individually considered - may not require to be hierarchically structured generally. On the contrary, the concept of hierarchical centres is not based on spatial consideration of economic activities, and it is potentially incapable of delineating the market boundaries of the economic activities concerned - as it does for services (refer to P. 10.37);

ii As has already been argued (refer to Ps. 8.100 and 10.37), the hierarchical approach to development of economic activities (Figure Two) can overlook the social (e.g. work-to-workers) and settlement (e.g. minimise disparities) objectives of Saudi regional policy, in context of upgrading or degrading centres in their hierarchies (refer to P. 10.36); and

iii The areas with comparatively low potentials for economic activities (e.g. small dispersed farms and tourism areas)

may not receive adequate attention since they may be too small to be clearly ranked in the hierarchies. This may be economically acceptable, but socially rejected: e.g. subsistence farming may form the only revenue base of a rural dweller.

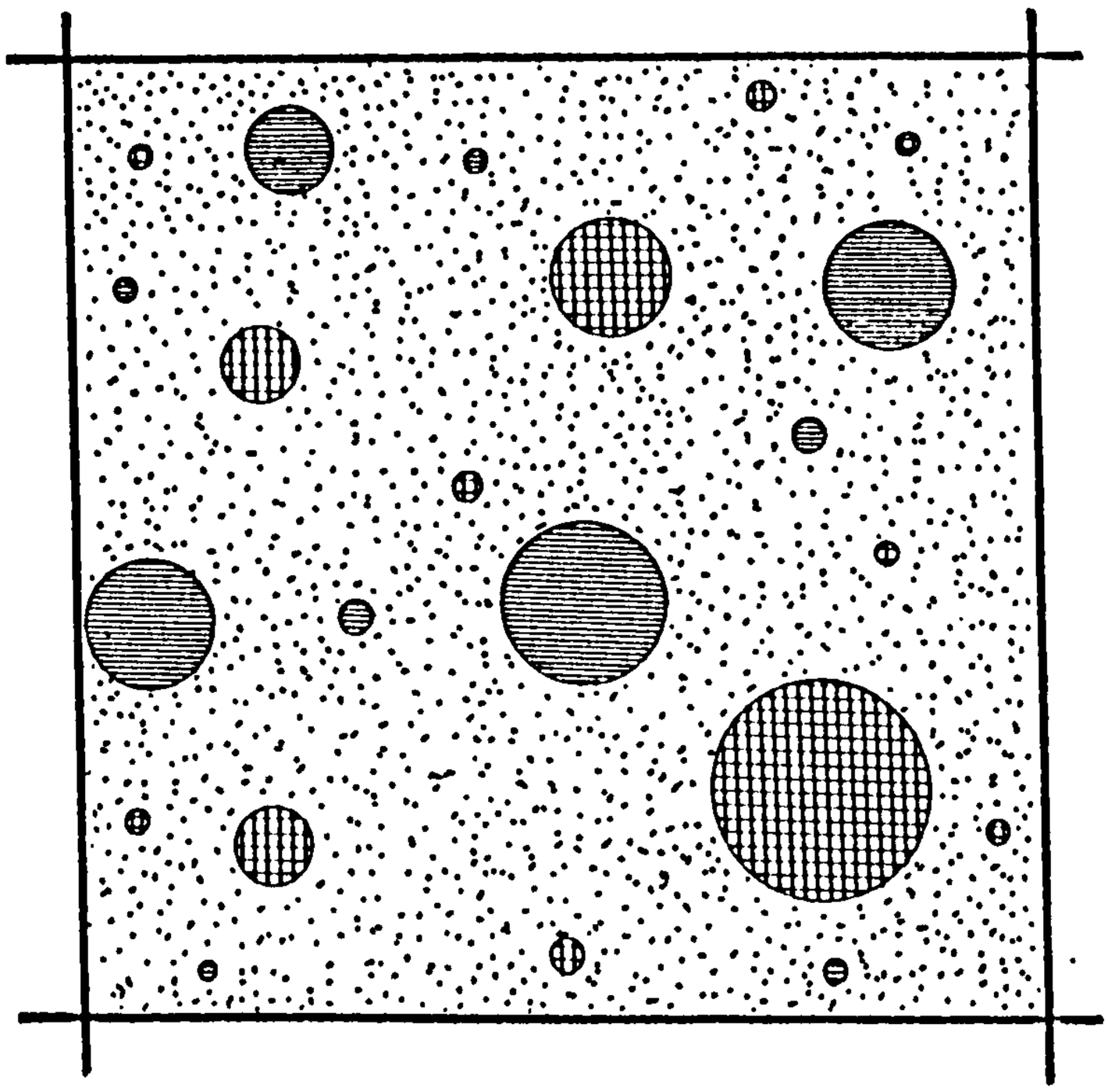
11.13 Refinement (B): 'Relax the Concept of Hierarchical Approach to Development of Economic Activities in the Saudi Backward Regions, and Target Investments to Potentials Wherever They Exist, in Context of Comprehensive Regional Development Plans'.

Advantages:

1 By avoiding basing economic developments on hierarchical systems (as in Figure Three, Chapter Eight or even in Figure Two), this refinement would free the backward areas from the inflexibility of an approach that would risk: first, extreme concentration of development advantages; second, overlooking the social and economic goals of the Saudi regional strategy in favour of the economic ones; and third, giving little consideration to areas with few potentials which would exclude them from a clear rank in the hierarchies, (refer to Figure Three and to P. 10.36);

ii Perroux noticed that development occurs at specific places with natural endowments, spreading through various channels to the surroundings (refer to P. 1.65). Therefore, it seems that - although Perroux was addressing industrial developments in particular - targeting investments to areas with viable potentials is potentially capable of preparing

Figure Three : Refinement (B) to the Policy From the Aspect of Development of Activities Other Than Industries in the Saudi Rural Regions : Schematic Illustration



Areas With Potentials For Agricultural Development : Same as in Figure Two, But Areas Here Are , First , not Ranked in Hierarchical Patterns and , Second , Considered Together With Areas With Possibly Low Potentials For Agricultural Development , That Could Be Too Small to Be Clearly Ranked in the Hierarchy Suggested By Figure Two.

Areas With Potentials For Tourism Development : The Above Argument Applies Here , As Far As Tourism Development is Concerned.

Areas With Negligible Potentials For Economic Developments

Notes:

* The First and Third 'Notes' Mentioned Under Figure Two Correctly Apply Here.
* A Single Area Can Have More Than A Function , As Long As It Has Potentials For That

For Comparison With the Proposed Policy In Al-Baha , Refer to Figure Three , Chapter Eight

for a later spread of benefits to the surroundings. In this respect, the development of local potentials can be better in terms of growth and spread of benefits: create positive diversification of the Saudi economy and fostering the spatio-economic development of the Saudi backward regions;

iii The suggested regional plans as a basis for development planning and investment programming could allow for effective evaluation and development of the economic potentials in the backward areas. Therefore, the plan is potentially capable of targeting investment to potentials, regardless of whether or not these are located in the existing administrative centres (refer to Figure Three). This is more promising for development of the backward areas, as well as for the whole economy; and

iv As will be illustrated later, regional plans as the tool of planning and development in the Saudi backward areas can greatly help in co-ordinating the actually implemented programmes with the strategically defined ones, in co-ordinating inter-ministerial programmes and in advising the national plans of the local potentials and needs to which investments should be directed. In this instance, development of local potentials could be better fostered by public investments, and efforts of various institutional bodies responsible for implementing such developments could be better co-ordinated and integrated.

Disadvantages:

i Although apparently realistic, this refinement is against the approach of investment concentration in the Saudi backward areas, unless the spatial distribution of

potentials so advocates. In the early stages of implementation, this may require more expenditure on development infrastructure and other related services, owing to the tendency to higher costs in dispersion in regard to infrastructure; and

ii Preparing, updating, implementing and co-ordinating programmes of the proposed regional plans with the national strategic plans are – albeit apparently essential to introduce – demanding tasks which require permanently employed skilled staff, with some authority granted to them.

11.14 Which refinement to choose? Comparing and contrasting the advantages and disadvantages of the above two refinements (Figures Two and Three), to the relaxed hierarchy of centres (Figure Three, Chapter Eight) from the aspect of the development of economic activities other than the manufacturing, suggests the adoption of alternative (B) (Figure Three).

11.15 Targeting investment to potentials wherever they exist is potentially costly in the initial stages of development, but seems a viable long-term approach to development of the backward areas. Having advocated the concentration of manufacturing industries in port cities, where potentials of industrial growth are apparently better, targeting investment to rural potentials in rural areas is a viable programme on which the government should embark, in order to minimise regional disparities and help rural areas. The proposed regional plans would define such potentials. The question now is: If economic developments benefit the areas of potential and probably their immediate geographical surroundings, what should be done for the backward areas which have no potential for economic development? Perhaps such areas could be partially – although

probably not generously - assisted, through the spatial distribution of development services and ministry administrative offices. This will be discussed next.

RERFINEMENTS TO THE POLICY FROM THE ASPECT OF SPATIAL DISTRIBUTION OF DEVELOPMENT SERVICES AND MINISTRY OFFICES IN THE SAUDI BACKWARD REGIONS

11.16 Having demonstrated the weak potential viability of the relaxed hierarchy of centres (refer to Figure Three, Chapter Eight) as spatial bases for distribution of ministry administrative offices and development services, this section will state, evaluate and select from two possible refinements to the relaxed policy from the aspect of providing for this particular function: the aims stated for the relaxed policy in regard to this function will be borne in mind.

11.17 Refinement (A): 'Distribute the Relevant Development Services and Ministry Administrative Offices in Independent Hierarchical Patterns in the Saudi Backward Regions, But Concentrate Their Regional Headquarters in the Regional Administrative Capitals'.

Advantages:

1 Concentrating the regional headquarters of the development services and the ministry offices in the Saudi administrative capitals (as is the current case in Al-Baha - refer to Figure Three, Chapter Ten) would be advantageous from the aspect of costs of infrastructure and economies of scale; and

ii Disregarding for a time the advocacy for concentrated

regional headquarters of various public institutions, a spread of other administrative branch offices in individual hierarchies could better stimulate the provision of work-to-worker conditions.

Disadvantages:

i The regional headquarters of development services and ministry administrative offices tend to be comparatively significant employers and spatio-economic development stimulators (refer to P. 10.41). Concentrating them in the regional administrative capitals in the Saudi backward areas is likely to employ the advantages of cumulative causation mechanisms at the expense of the backward peripheries (refer to Ps. 10.39 - 10.41). This would not enable the Saudi regional policy to achieve most of the aims stated for it by the national plans; minimise disparities, provide for work-to-worker conditions and stimulate spatio-economic development in the backward areas;

ii In the light of the demonstrated negative potential implication of land ownership and land forms (refer to Chapter Eight), extreme concentration of the headquarters of these institutions is likely to be costly in terms of land assembly and levelling. This would offset the economies of scale which favour concentration. More importantly, such concentrations could potentially be disadvantageous in the light of the inefficient transportation linkages in some of the Saudi local backward areas.

11.18 Refinement (B): 'Distribute the Relevant Development Services and Ministry Administrative Offices in Independent Hierarchical Patterns in the Saudi Backward Regions, With Their Regional Administrative Headquarters Also Spread: Locational Priorities Should be Given to Areas With No or with Negligible Potentials for Economic Developments'.

Advantages:

i Bearing in mind that they are comparatively significant employers and development stimulators (refer to P. 10.41), dispersing the relevant development services and ministry administrative offices (including their headquarters) in the Saudi backward regions could help better in providing for work-to-worker conditions and avoid growth of centres at the probable expense of backward peripheries. Giving locational priority of such institutions to rural areas which have no, or only negligible, potentials for development (Figure Three shows such areas schematically) could, despite the possibility of being comparatively far from areas of economic development, achieve the goal of decreasing development disparities across the country. This refinement does not view such institutions only as administrative offices of services – as is currently the case – but also as significant agents which can help in developing the backward areas, at least in the long run. It should, however, be borne in mind that the ministry offices talked about here are mostly administrative ones, rather than frequently needed services; and

ii Going for individual hierarchies of development services and ministry administrative offices – including their regional

headquarter offices — is probably more acceptable, bearing in mind two complementary reasons: first, different ministry institutions — although mostly not services in themselves but only administrative bodies (refer to Figure Three, Chapter Ten) — have different range and threshold measures which may not all be satisfied in the case of extreme concentration or even concentration only of their headquarter offices; and second, bearing in mind the development constraints of land ownerships, land forms and transportation links to extreme concentration in some of the Saudi backward areas, the disadvantages and problems associated with extreme concentrations could be intensified.

Disadvantages:

i The economics of agglomeration is an advantage that would be lost due to dispersion, rather than concentration, of at least the regional administrative headquarters of those institutions. That would lead however, to better potential to help the Saudi regional policies in achieving their goals; and

ii It is possible — having identified areas of potentials and targeted investments to developing them (Figure Three) — to spatially distribute development services and ministry administrative offices so that areas with no or negligible potentials (Figure Three shows such areas schematically) can be given locational priority. What could be difficult to achieve is to ensure that employees in those administrative institutions which located in the disadvantaged areas actually would be residents of those areas. If we can not ensure that, then the multiplier

effects of the incomes provided by such institutions would take place in other areas, which could be more prosperous: i.e. the benefits would spread to the home or other areas where labours invest. In this instance, these institutions would be physically locating in such disadvantaged areas but - in terms of external economies - benefiting other areas. The disadvantage here is that it is probably not practical to successfully apply measures by which institutions of the disadvantaged areas would employ only personnel from the immediate area: there could be a shortage in the readily skilled local labourers, and such attempts could decrease the chances of such institutions relying on qualified personnel for the sake of bringing about more equitable development opportunities.

11.19 Which refinement to choose? Comparing and contrasting the advantages and disadvantages of the two suggested refinements to the relaxed hierarchy of centres (refer to P. 8.94 and to Figure Three, Chapter Eight) from the aspect of providing for spatial distribution of development services and ministry administrative offices in the Saudi backward regions indicates selecting refinement (B): to see what kind of offices are talked about, refer to Figure Three, Chapter Ten.

11.20 However, selecting refinement (B) poses the question: To what extent should we disperse? This question will be answered in the context of the next section, which will view the extent to which the selected alternatives can potentially collaborate for the sake of achieving the aims stated for the Saudi regional strategy, represented by the relaxed hierarchy of centres.

AN AGGREGATE EVALUATION OF THE REFINEMENTS

11.21 This section will comprise two sub-sections. First, the selected refinements to the relaxed policy as a basis for industrial developments, development of other economic activities and distribution of development services and ministry administrative offices in the rural areas will be respectively stated: this will aid the next sections in terms of easy and direct reference. The second sub-section will view the potential ability of the refinements simultaneously exert positive impacts on the same main regional aims stated for the relaxed hierarchy of centres.

THE THREE SELECTED REFINEMENTS

11.22 As previously stated, the three selected refinements to the relaxed hierarchy of centres (refer to Figure Three, Chapter Eight) from the point of view of the three main functions attributed to it in the Saudi backward areas in particular are as follows:

i Concentrate the non-oil manufacturing industries in the port cities. Meanwhile, encourage the establishment of individual rural industries wherever and whenever viable linkages with available local factors of production and market conditions are demonstrated (refer to P. 11.07);

ii Relax the proposed hierarchical approach to development of economic activities (refer to P. 8.94 and to Figures Two and Three, Chapter Eight); target investments to potentials, wherever they exist, in the context of comprehensive regional plans (refer to P. 11.13 and to Figure Three); and

iii Distribute the relevant development services and ministry administrative offices in independent hierarchical patterns

in the Saudi backward regions, with their regional headquarters also spread; locational priorities should be given to areas with no or with negligible potentials for economic development (refer to P. 11.18).

11.23 The next section will discuss how the three refinements potentially capable of realistically integrating with each other towards the achievement of the Saudi regional objectives: i.e. the same objectives stated for the relaxed hierarchy of centres.

THE SELECTED REFINEMENTS IN VIEW OF THE SAUDI REGIONAL DEVELOPMENT OBJECTIVES

11.24 As indicated above, this sub-section is aimed at discussing the potential ability of the three selected refinements to collectively stimulate the achievement of the Saudi regional development objectives, represented by the aims stated for the relaxed hierarchy of growth and development service centres (refer to P. 8.94 and to Figure Three, Chapter Eight). In order to achieve this, this sub-section will state the main objectives of the Saudi formal regional policy and comment on how each of the refinements is deemed potentially capable of realistically contributing to the fulfillment of each objective.

Providing For Work-To-Worker Conditions

11.25 One of the fundamental aims of the relaxed hierarchy of growth and development service centres is to help the backward areas retain their population. Policy thinks this achievable through reversing the 1970s worker-to-work conditions which are blamed for the abnormal rural-urban migrations experienced, and hence minimising the regional development disparities. In this

regard, the relaxed policy appears potentially unable to stimulate the creation, polarisation and continuous functioning of rural industries as significant employers, or to stimulate extreme concentrations of significant employers at the backward regional level. The question therefore is: How could the selected refinements better provide for work-to-worker conditions that could favour rural backward regions?

11.26 Regarding the above question, the refinements are likely to have the following impacts:

1 The first selected refinement (refer to P. 11.22) suggests that only industries which can continuously rely on all or some of the local factors of production (labour, raw materials, market demands) should be permitted in the backward areas. This should not be viewed against – as it appears – but rather realistically in favour of the achievement of the above objective (i.e. provide work-to-workers) in the long run. In light of their previously demonstrated limited potentials, the Saudi rural industries – particularly those relying on foreign raw materials and out-of-region markets – can be vulnerable to closure and, hence, are not guaranteed long-term employers. It might be better for a region to remain backward, until attaining development of its viable potentials – whatever they are – than to become suddenly depressed by loss of artificially induced industries. In the latter case (i.e. becoming depressed) the region concerned may lose its image and confidence, which could discourage investors from investing in it despite the probable profitability of doing so. Therefore, this refinement is realistic rather than blindly

ambitious as far as achievement of this objective is concerned;

ii The second refinement (refer to P. 11.22 'and to Figure Three) calls for the relaxing of the centralised approach to economic development: the suggested approach by the relaxed hierarchy of centres (refer to P. 8.94 and to Figure Three, Chapter Ten). Instead, investments would be targeted to potentials wherever they exist in the Saudi backward areas. This is potentially more viable from the point of view of this objective. When investments start, it is hoped that the jobs created would remain long-term, since the potentials (agriculture, tourism) to which investments are targeted are viable. However, having such investment programming in the context of regional plans could better ensure the viability of potential, and this could compensate for the short-term loss of jobs in the backward areas due to the accompanying concentration of industries in the Port Cities; and

iii The third selected refinement (refer to P. 11.22) advocates spreading the relevant development services (e.g. agricultural banks) and ministry administrative offices (refer to Figure Three, Chapter Ten) - significant employers (refer to P. 10.41) - throughout the backward regions: later, the extent of such a spread will be discussed. Furthermore, the refinement suggests that the backward areas that have no, or merely negligible, potentials for economic development should be given locational priority by such institutions. Clearly, the refinement is potentially capable of providing for work-to-worker conditions in the

Saudi backward areas.

11.27 Therefore, in aggregate terms, the three selected refinements are potentially and realistically capable of providing for work-to-worker conditions in the Saudi backward areas. They are all designed to increase the probability of permanent jobs in the Saudi backward areas: this is revealed by the aggregate advocacy for targeting investments to the potentially viable resources. It is admitted that these refinements may not provide enough jobs for the labour supply in the Saudi backward areas. This poses the question: Should the government embark on other - though less viable from an economic aspect - investments in such areas? Before attempting an answer, the potential viability of the three selected refinements will briefly be tested from the aspect of their potential collective ability to achieve another aim of the Saudi regional policy, represented by the relaxed hierarchy (refer to P. 8.94) of centres.

Diversifying The Saudi Economy

11.28 A long-term goal of the Saudi national development plans is to have the economy sectoraly diversified, rather than continuously relying on oil revenues. The relaxed hierarchy of centres (refer to P. 8.94 and to Figure Three, Chapter Eight) was deemed by the Third Plan (1980-1985) helpful in this respect, since it would require embarking in the backward areas on non-oil developments: e.g. non-oil industries; tourism; agriculture. However, the hierarchy of centres has been shown, in this thesis, to be insufficiently effective as far as achievement of this objective is concerned. Therefore, the question is: What do the selected refinements potentially have to collectively contribute to the

achievement of this goal?

11.29 Speculating about the viability of the three selected refinements from the aspect of their potential ability to positively and collectively contribute in diversifying the national economy suggests the following:

i Embarking on intensive industrialisation programmes in the Saudi backward areas, may have disappointing results, at least from the point of view of the above-mentioned goal: such areas lack factors of production and market conditions that could enable industries – having established – to grow. Such industries could add burdens to, rather than diversifying, the national economy: they would rely on public incentives, without which most of them may close. From the viewpoint of this goal, the first refinement (refer to P. 11.22) is potentially more helpful: it seeks to concentrate industries in the port cities which have comparatively better factors of production, and to establish rural industries only where viability is clearly demonstrated;

ii By targeting investment to the viable potentials in the Saudi backward regions (the second refinement, P. 11.22 and Figure Three), aiding in the diversification of the Saudi economy is potentially more viable. From areas with natural endowments, Perroux (1955) observed that economic development starts and spreads. Although his observations concerned industrial developments, it is believed that the concept was, and still is, the same; and

iii Spreading development services and ministry administrative offices in the backward areas, with locational priorities

given to the areas with no or just negligible potentials, the third selected refinement (refer to P. 11.22) may not be capable of effectively assisting in the diversification of the Saudi economy. Rather, development services may locate far from the developments concerned. However, this is a trade-off between economic efficiency and social equity that should be accepted, in order for the Saudi regional policy to achieve its social equity aims (e.g. provide for work-to-workers, minimise disparities).

11.30 Therefore, by targeting investments to potentials, the hope of benefitting the backward regions' micro-economics and, hence, the national economy, is potentially increased. In context of the regional plans suggested by the second selected refinement (refer to P. 11.22), the viable potentials will be identified and their development programmed. Going back to the 1940s and 1950s, the Saudi oil reserves were found through the same advocated process - although different in nature and techniques - of a 'search for viable potentials and then target the investments accordingly'. However, the viability of the three selected alternatives will next be viewed from the angle of their collective potential ability to contribute to the achievement of another objective of the Saudi regional policy, represented by the relaxed policy.

Developing In Light Of The Islamic Principles

11.31 Formulating the spatio-economic development policies in light of the teachings of Islamic Shariah is a fundamental goal of the Saudi regional development strategies (refer to P. 10.18). As suggested in connection with Figure Two (Chapter Ten), the relaxed hierarchy of centres (refer to P. 8.94 and to Figure Three, Chapter

Eight) will potentially stimulate adherence to economic efficiency at the expense of social equity in the Saudi backward areas: this is reflected by its advocacy of extreme concentrations of development, as well as by the possibility of overlooking the social and settlement aims of the policy in the context with upgrading and degrading different centres in the hierarchy (refer to P. 10.36). The question now is: To what extent can the three selected refinements collectively stimulate better adherence to a compromise between economic efficiency and social equity of developments, as advised by the Islamic Shariah?

11.32 Discussing the potential viability of the three selected refinements from the perspective indicated by the above question, suggests the following:

i Encouraging the establishment of rural industries wherever factors of production (raw materials, lands, market conditions) viably exist is apparently against extreme concentration of different industries, unless distribution of relevant factors of production so advocates. This refinement is realistic even from the viewpoint of the advocated compromise. It believes that it is better also for social equity to encourage only the establishment of rural industries that can; first, survive as economic generators and as employers, due to the availability of viable production and marketing conditions, and second; spread benefits to their surrounding backward areas due to linkages with local factors of production: the channels through which benefits may be spread from areas of developments (refer to P. 3.41). Having demonstrated that massive industrialisation in the Saudi backward areas is

unlikely to help the national economy (due to lack of factors of production and weak markets) nor to help social equity (due to weak linkages with the stated lack of local factors of production), the refinement is sensible in calling for concentration of industrial development in the port cities. At least the national economy could be helped, and that could indirectly help social equity in the whole country due to the fact that Saudi expenditures tend to be matched with generosity of revenues (refer to Chapter Six). In this instance, this refinement realistically bore in mind the compromise advocated by the Islamic Principles (refer to Figure Two, Chapter Ten). However, one may suggest that (refer to P. 11.27) the Saudi government ought to embark on industrial or other investment programmes - though this may not be economically viable - in the backward areas, if not for economic then for social equity purposes (e.g. provision of jobs). Such a suggestion is unacceptable because: first, the Saudi rural regions are still backward rather than depressed, with potentially viable resources, exploiting which could both benefit the whole economy and regional development; and second, the uncertainties surrounding oil markets, and hence the Saudi financial commitments, makes it uneconomic for the government to embark on unviable industrial programmes in all the eight backward regions;

ii In targeting investment to potentials, as suggested by the second selected refinement (refer to P. 11.22 and Figure Three), the economy can better benefit, and jobs - though these may not be enough - can be continuously available. If it succeeds in spreading benefits, such an approach could

help in developing the surrounding areas. This is not far from the advocated compromise, though a bit biased to economic efficiency; and

iii As argued above, directing investment to viable potentials in the Saudi backward regions may be biased to economic efficiency, since the abilities of developments to spread benefits to their surroundings tend to be outweighed by their ability to polarise from them other factors of production (e.g. capital and labour). The third selected refinement (refer to P. 11.22) aims towards the compromise advocated by the Islamic Shariah (Figure Two, Chapter Ten). It calls for spreading development services (highly significant: less frequently needed) and ministry administrative offices not services in the backward regions, with locational priorities given to areas with minimum potentials for economic developments. In this instance, this refinement is biased towards social equity, partially balancing the bias shown by the above refinement to economic efficiency. However, recalling the question: To what extent should we disperse? (refer to P. 11.20), Figure Two (Chapter Ten) is self-explanatory in calling for a compromise: i.e. not to extremely concentrate such administrative offices at the backward regional level, and not to disperse to the settlement level: as argued in P. 10.42, there is a need for research that could – beyond our purposes – speculate about the extent to which significant services (e.g. hospitals, airports, specialised libraries: less frequently used and major employers could be dispersed in the backward areas that have negligible potentials for

development. However, the suggestion here to give locational priority of the ministerial offices (as employers and spatio-economic development stimulators - refer to P. 10.41) to the disadvantaged areas, should be effective enough to advise our strategic proposals.

11.33 Therefore, the three selected refinements (refer to P. 11.22) are potentially able to collectively contribute to achieving the three fundamental aims of the Saudi regional policy: i.e. providing for work-to-worker conditions (and hence helping to minimise the regional economic disparities); developing in view of the Islamic teaching; and helping to diversify the Saudi economy. There is still, however, another fundamental institutional aim stated for the relaxed policy, that the selected refinements should potentially better achieve: that is, stimulating better co-ordination of the inter-ministerial programmes at the regional level. The question now is: Having demonstrated the potential inability of the relaxed hierarchy of centres (refer to Figures Two and Three, Chapter Eight and to P. 9.66) to stimulate better co-ordination between planning levels and aims in Saudi Arabia, what refinement could answer this need and how to implement on the ground the above three selected refinements to the relaxed policy, from the aspect of different economic functions? This will be discussed in the context of the next section.

INSTITUTIONAL REFINEMENTS AND IMPLEMENTATION OF THE SPATIO-ECONOMIC DEVELOPMENT IN THE SAUDI BACKWARD REGIONS

11.34 The need for having the Saudi ministerial programmes better guided by the strategic oversight, as well as for having the inter-ministerial programmes better co-ordinated with each other in Saudi

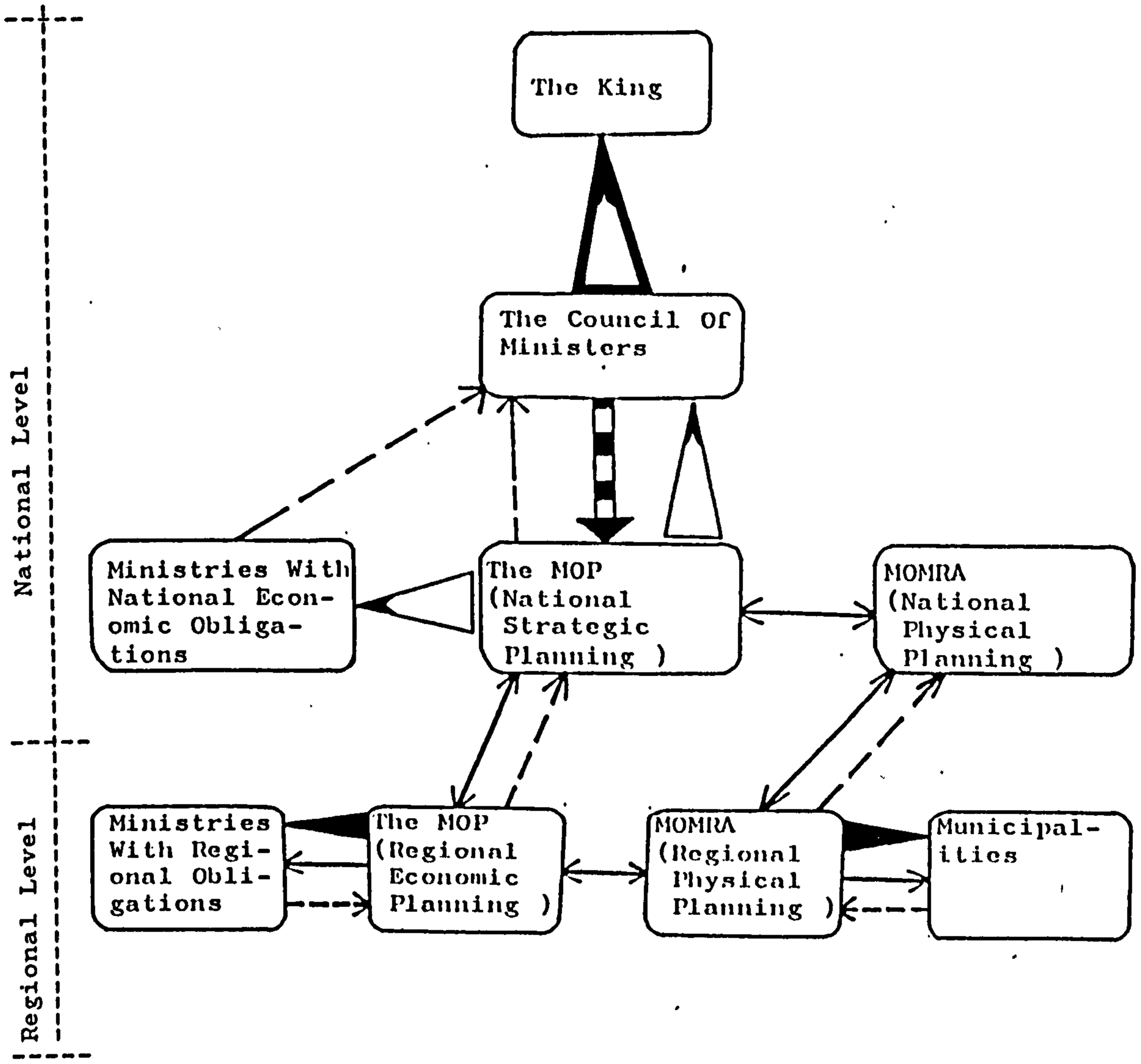
Arabia, has been demonstrated and quoted from the Third Plan (1980-1985), and in Chapter Nine (refer to P. 10.23). The hierarchical centres proposed by the Third Plan as spatial bases for identical distribution of ministerial administrative offices (refer to Figures Two and Three, Chapter Eight), have been called potentially passive as far as stimulating better co-ordination of inter-ministerial programmes is concerned (refer to P. 9.66).

11.35 This section begins by identifying, evaluating and selecting from two possible refinements of the Saudi Institutional system, in order to bring about better vertical (between the national-economic and the regional-physical) and horizontal (between ministerial programmes) levels and aspects of planning. It is worthwhile mentioning that the intended proposals in regard to the Saudi institutional refinements will be formulated in light of the various experiences studied in previous parts of this thesis: e.g. experience of the existing institutional system in Saudi Arabia (Chapter Nine), the Saudi Royal Commission for Jubail and Yanbu (Chapters Five and Nine), Scottish local government (Chapter Nine) and the Norwegian institutional reforms (refer to v, P. 3.50).

REFINEMENT OF THE RELAXED HIERARCHY OF CENTRES FROM THE ASPECT OF STIMULATING BETTER CO-ORDINATION OF DEVELOPMENT PLANNING AND IMPLEMENTATION: ALTERNATIVE A

11.36 Chapter Nine described the recent reforms and the existing structure and functioning of the Saudi institutional system, as far as development planning and implementation are concerned (refer to Figure One, Chapter Nine). Figure Four (Chapter Eleven) illustrates a possible refinement (Alternative A) which might

Figure Four: The Proposed Institutional Refinements In Regard to Planning and Development in Saudi Arabia : Alternative ' A '



MOP = Ministry Of Planning & MOMRA = Ministry Of Municipal & Rural Affairs

enhance the potential ability of the system to stimulate more effective co-ordination between strategic and actually implemented programmes on the one hand, and between inter-ministerial programmes on the other.

11.37 Alternative A suggests that the Ministry of Planning (MOP) and the Ministry of Municipal and Rural Affairs (MOMRA) should operate at the regional level as well: the latter is currently represented in the local level of the backward regions (our concern) by municipalities, which are: first, responsible for small jurisdictions and a narrow spatial view of physical planning; and second, only executives rather than planning bodies as well. With reference to Figure Four, and bearing in mind that attention here is devoted to the benefits of the backward areas for which help the policy was proposed, apparent and potential advantages and disadvantages of this refinement will next be highlighted briefly.

Advantages Of Alternative A

11.38 At least six positive impacts on the potential ability of the Saudi institutional system to stimulate better co-ordination between planning aspects (economic and physical) and levels (national and local) can be stimulated by this alternative refinement (refer to Figure Four), as follows:-

i Having the MOP operating at the regional level - where a high number of ministries operate (refer to Figure One, Chapter Nine) - should enable it to better ensure that the implemented ministerial programmes are co-ordinated with each other, and are also directed by the strategic programmes spelled out in the national development plans: the MOP can then rely on its own data in such supervision

and evaluation;

ii As mentioned above, the municipalities are currently only: first, executives; and second, responsible for small jurisdictions in their regions - exceptional are those of the large cities, to which planning and executive powers are delegated. Having MOMRA operating at the regional level as well (refer to Figure Four) should potentially provide for: first, comprehensive views of regional physical planning; second, better appreciation of local needs and constraints to settlement expansion and developments; and third, closer supervision for the programmes implemented by the municipalities;

iii Having the MOP (handling primarily economic planning) and MOMRA (handling primarily physical planning) operating at the regional levels as well, is potentially capable of stimulating better co-ordination not only between planning levels (national and regional) but also between planning aspects (economic and physical);

iv The refinement (Figure Four) suggests that co-ordination, cohesion and integration of planning activities should be arranged between the MOP and MOMRA in order for the above-mentioned co-ordination of planning levels and planning aspects to be satisfactorily fulfilled;

v The refinement (Figure Four) believes that the MOP and MOMRA should continue operating at the national level also. This should help them: first, in comprehensively viewing the whole nation from the economic aspect (in the case of MOP) and spatial integration of physical planning (in the case of MOMRA); and second, in being close and linked to the Council

of Ministers: the highest decision-making body in the country; and

vi The ministries with regional development obligations (refer to Figure One, Chapter Nine) should still be represented in the Council of Ministers. However, as far as programming and implementing their plans is concerned, these should be executive agents under the supervision of the proposed regional offices of the MOP. This will - as argued previously - stimulate a higher degree of compliance with national plan strategies and programmes, which are usually prepared by the MOP National Office.

Disadvantages Of Alternative A

11.39 Nevertheless, this institutional refinement has potential disadvantages, such as the following:

i The MOP and MOMRA are independent bodies which handle inter-linked planning aspects (economic and physical, respectively). More effective co-ordination between these planning aspects may not be effectively and continuously stimulated only by having these planning bodies operating at regional level, despite their expected serious attempts to achieve such. Should there be a formal co-ordinating machinery?;

ii The national development plans spell out the goals, strategies and programme of actions for sectoral-economic development of the country. Each ministry with regional development obligations prepares its own plan that should - at least in principle - be guided by the strategic programmes. It seems a difficult task for the MOP - having

operated at regional levels as well – to co-ordinate the inter-ministerial programmes with each other, as well as with the strategic programmes: each ministry's plan is prepared individually. Similarly, it is potentially difficult to co-ordinate physical and economic planning at regional levels. The need for 'comprehensive regional plans', which can programme actions of all bodies in light of the strategic programmes is potentially obvious; and

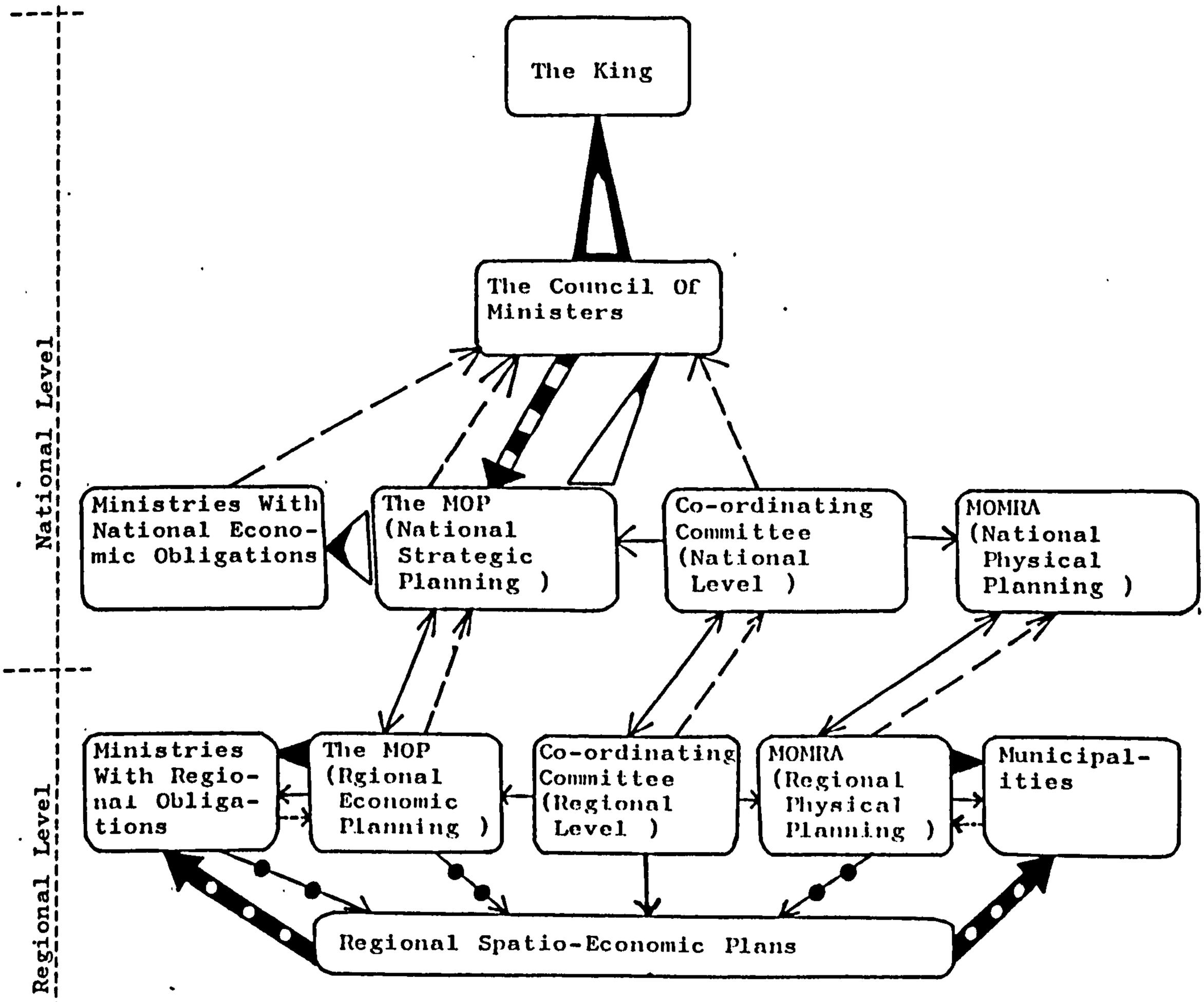
iii Therefore, one may not expect this refinement to stimulate effective co-ordination between planning aspects (economic and physical) on the one hand and between strategic and actually implemented programmes on the other, without introducing to the system two units: co-ordinating machinery and comprehensive regional plans as the basis for planning, implementation and monitoring programmes of various bodies. Would the second refinement acknowledge such a need?

REFINEMENT OF THE RELAXED HIERARCHY OF CENTRES FROM THE ASPECT OF STIMULATING BETTER CO-ORDINATION OF DEVELOPMENT PLANNING AND IMPLEMENTATION: ALTERNATIVE B

11.40 Alternative B with regard to refinements to achieve more effective development planning in Saudi backward areas is illustrated by Figure Five. It does not significantly differ from Alternative A (Figure Four), but calls for mitigating its potential disadvantages through introducing a co-ordinating committee and comprehensive regional development plans .

11.41 The potential advantages and disadvantages of Alternative B will next be listed: reference to Figure Five is essential.

Figure Five : The Proposed Institutional Refinements In Regard to Planning and Development In Saudi Arabia : Alternative ' B '



MOP = Ministry Of Planning & MOMRA = Ministry Of Municipal & Rural Affairs

Advantages Of Alternative B

11.42 Alternative B has potentially eleven advantages, of which six are the same as i - vi mentioned with regard to the first (refer to P.11.38). The five additional advantages are as follows:

vii Introducing the Co-ordinating Committee as an independent body responsible for co-ordination between physical (MOMRA) and economic (MOP) planning at both national and regional levels (refer to Figure Five). This would formally stimulate more effective co-ordination between aspects and levels of development planning in Saudi Arabia;

viii Introducing 'Comprehensive Regional Plans' as a planning device that can translate the aims and programmes of the five-year national economic plans into implementable programmes. This should potentially stimulate; first, more effective co-ordination and integration of economic and physical planning at regional levels; second, better adherence to the strategic investment programmes; third, more effective co-ordination, phasing and integration of the inter-ministerial programmes; and fourth, better appreciation of local needs and potentials of economic developments;

ix Figure Five suggests that MOMRA, the MOP and the various ministries with regional development obligations, should have inputs in the proposed 'Regional Plans', with the Co-ordinating Committee helping the two former (the MOP and MOMRA) to ensure that those inputs are; first, co-ordinated with each other; second, adhere to the national economic and spatial development strategies and investment programmes;

and third, implementable;

x By having the Co-ordinating Committee reporting to the Council of Ministers (refer to Figure Five), the Council can; first, be regularly informed of the overall development constraints (physical, economic, etc) and progress; and second, base the guidelines to the development strategic planning on more up-dated knowledge regarding needs and priorities of development in the country; and

xi Having the regional plans prepared in the light of the national strategies and objectives spelled out in the national five-year development plans. Having them guide the actions and programmes of the municipalities and the other ministries (refer to Figure Five) should potentially enhance the cohesion between the planning aspects and levels in Saudi Arabia, which is a fundamental aim for which the relaxed hierarchy of centres was proposed but which is deemed in this thesis as potentially ineffective.

Disadvantages Of Alternative B

11.43 There are still some potential disadvantages – although few and insignificant – in the adoption of the refinements suggested by Figure Five, some of which could be as follows:

i In order for the Co-ordinating Committee to be more effective, it should be – just like the Royal Commission for Jubail and Yanbu – directly responsible to the Royal Cabinet (refer to Figure One, Chapter Nine, and to Figure Five, Chapter Eleven). Obviously, this will add to the current vast and demanding responsibilities of the Cabinet;

ii In order for the proposed regional plans to effectively co-

ordinate development planning, they should be; first, formulated; and second, updated in parallel with the five-year national plans. Obviously, this requires qualified staff to be permanently employed for such purposes;

iii Figure Five assumes that the regional and national offices of the Co-ordinating Committee are capable of vertically co-ordinating their tasks and the tasks of other bodies. On this assumption, the effectiveness of the whole system, as far as co-ordination and integration of development planning is concerned, may depend;

iv Who will be primarily responsible for the preparation of the regional plans?: MOP, the Co-ordinating Committee or the MOMRA? The MOP, MOMRA and other ministries having regional development obligations will have inputs into the plan (refer to Figure Five), but there will still be room for dispute about the extent to which such inputs should be considered. Should the Co-ordinating Committee be the judging body in this case, particularly when the national goals and strategies are only broadly addressing the matters concerned?; and

v The regional plans should advise the forthcoming national plans on the needs and potentials of development in such backward areas. In turn, the regional plans should be prepared to translate national objectives and strategic programmes into implementable programmes. Obviously, the regional plans have to be prepared only after approval of the national plans. Preparation of the regional plans may take several months, at least. This time gap is likely to be at the expense of the phasing of ministerial programmes.

Nevertheless, the loss due to such a time gap is relatively tiny compared with the loss due to not adopting regional development plans.

11.44 Having briefly listed the potential advantages and disadvantages of the possible two alternative institutional refinements in Saudi Arabia for the sake of achieving more effective co-ordination between planning levels and aspects, the next sub-section will select from these two alternatives.

WHICH OF THE TWO ALTERNATIVE INSTITUTIONAL REFINEMENTS TO CHOOSE?

11.45 Comparing and contrasting the advantages and disadvantages of the above two alternatives (Figures Four and Five) suggests selecting Alternative B (Figure Five). Introducing the Co-ordinating Committee and the regional plans, and having the MOP and MOMRA operating at the regional as well as at the national level is potentially more effective in co-ordinating and integrating Saudi planning levels and aspects, provided that each body performs as expected in Figure Five, as well as having the listed potential advantages (refer to P. 11.42). It is, however, important to stress again that these refinements are proposed particularly with the needs of development in the Saudi backward areas in mind: the areas for which help the relaxed policy (which had the same institutional aims) was proposed.

11.46 Having selected a potentially more effective refinement from the viewpoint of stimulating co-ordination of planning in different aspects and levels in Saudi Arabia, the next section will comment briefly on how the three selected refinements to rural economic development policy (refer to P. 11.20) can be more effectively

implemented by the refined Saudi institutional structure (Figure Five).

IMPLEMENTATION OF THE SELECTED REFINED DEVELOPMENT POLICIES

11.47 Having selected three complementary refinements to the policy of a hierarchy of growth and development centres for the functions of non-oil manufacturing, other economic activities and spatial distribution of development services and ministry offices in the Saudi backward regions (refer to P. 11.22), this sub-section is intended to comment on how these selected policies might be more smoothly and effectively implemented by the refined institutional structure incorporated in Alternative B (see Figure Five).

11.48 Implementation of a more sensitive and better integrated quality will be potentially possible because:

i The proposed comprehensive regional plans will - among other tasks - search for potentials of economic development (agriculture, manufacturing, mining, tourism) and will then: first, advise the forthcoming national strategic plans on how to formulate investment programmes so that investments can be geared towards potentials; and second, guide and help the ministries with regional development obligations to target on areas with potentials for economic growth and capacity to achieve spread of benefits. In this way, the first and second selected refinements (refer to P. 11.22) can be formally implemented. Regarding the roles of different bodies in the formulation, co-ordination and implementation of the proposed regional plans to translate strategic programmes and to advise on the formulation of the next strategic programmes, Figure Five is fairly self-

explanatory;

ii In the context of the proposed regional plans, the spatial distribution of development services (e.g. agricultural and industrial banks, chambers of trade) and ministry administrative offices will not be viewed any more only from physical perspectives, but also from the perspectives of their potential impacts as significant employers and stimulators of spatio-economic development. Having defined the areas of viable potentials for economic development, the plans will define disadvantaged areas with no or negligible potential for economic development. These disadvantaged areas could be given locational priority for significant employers and stimulators of spatio-economic development. To what extent should such institutions be dispersed? As argued previously, the dispersal should bear in mind the compromise between social equity and economic efficiency advised by the Islamic Shariah Principles (refer to Figure Two, Chapter Ten). In light of the strategic investment programmes, the regional plans will phase the programmes of ministries over a five-year period, and ministries should act accordingly (Figure Five); and

iii Licensing rural industries which can have functional linkages with efficient factors of production can follow upon the regional plans. In this sense, the plans can guide the investment programmes of the Ministry of Industry. The other part of the policy (see i, P. 11.22) calls for concentrating manufacturing industries in the port cities. Indeed, this can be to some extent called a 'no-change strategy' (refer to Figure Four, Chapter Four). However,

for the purpose of industrial growth and better ability to spread benefits to the surrounding areas, the Ministry of Industry should encourage the establishment of functionally linked industries - not only with each other (roles of Perroux's propulsive industry) but also with local factors of production (e.g. raw materials, labour). Of course raw materials are not widely available, but Saudi labourers can be encouraged to participate more fully in industrial employment. Norway, for example, based the incentives given to the rural industries on the number of employees, in the context of minimising unemployment rates. Could a similar effective approach be applied, or should things be left to free-market conditions (i.e. when unemployment became a problem, people would seek jobs in manufacturing) to regulate the involvement of Saudis in such industries? However, the roles of industries in regard to involvement of Saudis in industrialisation should be objectively explored and, probably, mitigated: e.g. through subsidies and help, so that better salaries can be paid to Saudis.

11.49 Therefore, the selected development policies (refer to P. 11.22) can be smoothly implemented, provided that the refined institutional structure works to the expectations of Figure Five. However, it must be stressed that the regional plans have to be updated in conjunction with the national five-year strategic plans, since the former would be intended to translate the latter into implementable programmes. Furthermore, the Regional Emirates (offices of the Ministry of the Interior, refer to P. 9.17) should work to give the regional institutions security and police-power to carry out their tasks as suggested by Figure Five. The Co-

ordinating Committee is deemed potentially capable of formally helping to co-ordinate the ministerial programmes with each other - an informal role currently played by the Emirates - and with the strategic programmes: the media of action will be the regional plans.

11.50 The consultations between the MOP and the Ministries of Petroleum and Economy (Figure Five) should ensure that the strategic investment programmes realistically take account of the expected status of the whole Saudi economy in general, and oil revenues in particular.

11.51 Having briefly explained how the proposals could be efficiently implemented, the next section will briefly conclude the thesis by reflecting on the nature of the research problem, the proposed policy, the results of the evaluation, the selected alternatives and the recommended further studies.

CONCLUSION

11.52 Central place and growth centre theories provided probably the most influential concepts in urban and regional planning and development policy in the recent past in the comtemporary world. However, these theories were initially developed not for policy purposes but as a means for analysis of spatial structure of settlements - in the case of the central place theory - and of the occurrence and spread of economic developments generally - in the case of the growth centre theory.

11.53 Regional and urban development policies in Europe have borrowed heavily from the concepts of these two theories, particularly in the 1960s and 1970s. Many developing countries, blindly or deliberately, followed Europe in applying such concepts

for aims associated with curing economic backwardness and regional disparities. However, the research problem - as will shortly be highlighted - required the thesis to be biased towards potential implications of the growth centre policy in the Saudi backward regions, with only comparatively brief references to the central place theory which initially gave birth to the concept embodied in the proposed concept of hierarchical centres in Saudi Arabia.

11.54 Unlike the natural concentration of industries, where theorists have observed that functional linkages polarise industries and spread benefits to the surroundings, the experiences of the artificial centres (Chapter Two) mostly suggest that polarisation of centres became a function of concentrated financial incentives, when the centres' ability to spread benefits to their surroundings became negligible. Poor linkages with the surrounding factors of production and weak functional linkages among the concentrated industries have been blamed for the lack of ability of the centres to spread benefits to their surroundings, and their failure to emulate the role of Perroux's propulsive industry and to achieve external economies in industrial output growth. These experiences show that benefits are spread mostly to areas from which factors of production (labour, raw materials) may be imported: i.e. in the language of Perroux, benefits are spread to areas where these channels terminate. Similarly, the absence of functional linkages among concentrated industries lead industries to be only physically concentrated: growth of one does not benefit the other, and vice versa. This poses the question: Can such an artificial concentration of industries help in curing regional disparities and the spreading of benefits to surrounding backward areas? The Kenyan rural industrial estates suggest that this is

possible. They show an effective ability to grow and to spread benefits: they comprise handicrafts which are functionally-linked with local raw materials and market demands.

11.55 For the purposes of assisting in the development of economic activities in the backward areas in order to minimise regional development disparities; providing work-to-worker conditions in order that backward areas could retain their populations; helping to diversify the national economy; and stimulating more effective co-ordination of inter-ministerial programmes at the regional levels, the Saudi Third Development Plan (1980-1985) proposed a hierarchy of growth and development service centres to be spread throughout the country (refer to Figures Two and Three, Chapter Eight). Three functions were attributed to the proposed hierarchy of centres: non-oil manufacturing; other economic activities (e.g. agriculture, tourism); and spatial distribution of development services (e.g. agricultural banks) and ministry administrative offices.

11.56 This thesis assumed the task of evaluating the potential viability of this policy (refer to P. I.09) from economic, social, settlement and institutional perspectives: the fields on which the policy was deemed by the national plan potentially capable of exerting positive impacts. To achieve this, the thesis adopted a clear methodological model from the very beginning (refer to Figure One, the Introduction). In light of the suggestions of the model, the theories of growth centre and central places were first theoretically and pragmatically studied, with more emphasis on the former as industrial-linked theory.

11.57 The experiences of the growth centre policy – as an industrial policy – in selected developed and developing countries

were studied in Chapter Two : reliance on secondary sources of data was obviously inevitable. Issues – rather than direct lessons – were then extracted from these studies so that they could be examined from the perspectives of the potential implications of the proposed policy in Saudi Arabia. Direct lessons were learned from the two experiences of the Jeddah Industrial Estate and the Yanbu Industrial City and from Al-Baha (as study region). Among the vital issues extracted from those experiences to illuminate the potential impacts of the proposed hierarchy of industrial centres in the Saudi backward areas, are those concerned with the availability of labour; commitment and ability to continuously foster the policy in the Saudi backward areas (the areas for which help the policy was primarily proposed); market sizes and conditions; the availability of raw materials; the potential ability of the centres to stimulate the creation and polarisation of enterprises, as well as spreading benefits to their surroundings; and the potential ability of the centres to independently stimulate more effective co-ordination of Saudi inter-ministerial programmes (refer to P. 3.64).

11.58 Utilising the theoretical and pragmatic studies made, Chapter Ten declared the potential viability of the proposed hierarchy of centres to be weak, not only as industrial centres, but also as hierarchical concentrations of other economic activities and as hierarchical concentrations of development services and ministry offices. All the economic, social, settlement and institutional aims of the policy were borne in mind during this evaluation. Reference to Chapter Ten is recommended for the purpose of obtaining access to a detailed summary of demonstrated facts, and of the way in which they were utilised to

achieve the purpose of this thesis.

11.59 By evaluating the potential viability of the policy, Chapter Ten achieved the aim of this thesis (refer to P. I.09 and to Figure One, in the Introduction). However, to be prescriptive also, the thesis went further to propose refinements to the policy – from the viewpoints of all the functions attributed to it – which could potentially be more viable in achievement of the multi-disciplined aims of the Saudi regional policy.

11.60 Explicitly, the suggested refinements were evaluated. Those finally selected (refer to P. 11.22) suggest that non-oil manufacturing should continue to be concentrated in the port cities, where accessibility to factors of production are potentially more viable; while rural industries should be permitted only whenever viable linkages with viable factors of production are demonstrated. The refined policies suggest also that investments in the backward areas should be targeted to areas with viable potentials, while locational priority of ministry administrative offices and development services (as significant employers and spatio-economic development stimulators) should be given to areas with no or with only negligible potentials for development.

11.61 Figure Five (Chapter Eleven) illustrated the selected refinement to the relaxed hierarchy of centres from the aspect of achieving more effective co-ordination of inter-ministerial programmes. It is suggested that the MOP and MOMRA should also operate at the regional levels. A Co-ordinating Committee should be introduced to the system to assist in co-ordinating planning aspects (physical and economic) and planning levels (national and regional). Regional plans should be introduced as detailed interpretation of strategic programmes: they will help in co-

ordinating and phasing the programmes of ministries and municipalities, as well as in ensuring better adherence to strategic programmes.

11.62 However, it is worthwhile mentioning that this thesis would require complementary studies in order for the findings to be reinforced or broadened in all their scope: this is felt to be due to the following:

i *The study concentrated on the need for the development of the Saudi backward regions in particular: the areas for whose help the relaxed hierarchy of centres was primarily proposed;*

ii *Representativeness of the labour, raw materials, market and development conditions in the Al-Baha region to those in the other Saudi backward regions was assumed, rather than factually demonstrated;*

iii *Up-to-date information about certain aspects of Saudi conditions were not available to the researcher (e.g. current commitments to the policy). There are unusual limitations upon data availability in certain fields in Saudi Arabia. With the availability expected in most Western countries, the findings of this research could be better employed for the benefit of the objectives of the Saudi regional policy; and*

iv *The resources (both time and financial) available to the author did not help in effectively studying some vital issues: e.g. measuring the availability of raw materials like mines, upon which some rural industries could establish and continue functioning.*

Nevertheless, the author bore in mind – right from the start – the need for arriving at realistic approaches which could help Saudi regional policy better fulfill its aims as far as development of the Saudi backward regions is concerned. It is therefore hoped that this thesis may be closely consulted, particularly by the MOP and by MOMRA.

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APPENDIX ONE: THE QUESTIONNAIRES

This appendix comprises the questionnaires used during the Researcher's Field Studies (carried out in April and May, 1988). They address seven different types of population (A to G). The questions were formulated in light of the requirements of the objective studies suggested by the issues listed at the end of Chapter Three, as well as in light of the aims of both the research, and the Saudi Regional Policy.

A – QUESTIONNAIRE FOR THE ADMINISTRATIONS OF THE YANBU INDUSTRIAL CITY AND JEDDAH INDUSTRIAL ESTATE

1. What are the aims stated – if any – for this industrial city/estate to achieve?

2. – How many factories are there in the city/estate?

   – How did that number change through time?

   – What type of factories are they?

   – How many of the factories did move to the city/estate from: a – within the region?

   b – other regions?

3. – How many of the factories have more than 50% foreign share?

   – How has that picture changed through time?

   – What % of the total enterprises in the city/estate do those which are privately owned represent?

   – How has this % changed through time?

4. – How long does it usually take a factory in the city/estate to obtain the required industrial licence?

   – How much does it cost?

   – How did this cost change through time?

5. – What type of incentives are available to enterprises located within the city/estate?

   – How have they changed through time?

6. – How many people are employed by the whole city/estate?

   – What % of them are Saudis?

   – What % of the Saudis are technicians?

   – How has the share of Saudis in the total of employees behaved *through time*?

7. – How much is the average salary paid to technicians working in the city/estate?

8. – What types of raw materials are mostly processed within the city/estate?

   – Are raw materials mostly indigenous or exported?

9. – Can you estimate the overall value of the annual production of the whole city/estate?

   – How has that value changed through time?

10. – Where are products mostly sold?

    – What % of the products are usually sold:
    a – within the region?

    b – out of the region but within the Kingdom?

11. – Do the indigenous products face competition with similar or substitute exported products?

    – If yes, has the Ministry of Trade attempted any action to shift market conditions in favour of the indigenous products?

    – If yes, please give examples.

12. – Are there functional linkages between industries in the city/estate and:
a – other industries locating in the surrounding areas?

b – other sectors of society and institutions within the surrounding areas?

c – industries, institutions, sectors of society in other regions?

– Please explain the nature of these relations, if any.

13. – Who provides water, electricity and telephone services in the city/estate?

– On average, how long does it take a factory to get all these services connected to its premises?

– In case of expansion, how long does it take the application to be considered?

– What procedure may be followed in processing applications of such a nature?

14. – What general problems face this city/estate?

15. – Any final comments?

B – <u>FOR INDIVIDUAL INDUSTRIES WITHIN THE YANBU INDUSTRIAL CITY AND JEDDAH INDUSTRIAL ESTATE</u>

1. – When was this factory initially established?

2. – Was it initially established in this industrial city/estate?

– If yes, why?

If no;
a – Where was it located?

b – Why did it move from the original location?

c – Why did you locate in this particular industrial city/estate?

3. – What are the objectives stated for this industry to achieve?

4. – Have these objectives been achieved?

– If yes, what factors have led to such achievement?

– If not yet, do things seem to be in the right direction towards achieving those objectives?

5. – What types of incentives are provided for you?

– If any, do you find them generous?

– How have the magnitudes and types of incentives changed through time?

6. – How long does it take for the basic services (water, telephone, electricity, ... etc.) to be connected to your premises?

7. – How long did it take you to obtain an industrial licence?

– How much did it cost you?

– How has this cost changed with time?

– How often must you renew this licence?

8. – How many workers are employed by your factory?

– How many of them are Saudis?

– How many of the Saudis are technicians and/or workers?

– How has the % of Saudis out of total employees in your factory changed with time?

9. – What is the average salary you pay the employees?

– On average, how much do you pay the technicians and/or workers?

11. – What type of raw materials do you process?

– From where do you obtain them?

12. – Where do you sell your products?

13. – Do you face competition from similar imported products?

– If yes, what action does the Ministry of Trade take to help you avoid any possible loss due to such competition?

– Do you find this action, if any, helpful?

– Can you suggest any additional or alternative action?

14. – Has your production level changed through time?

– Please explain.

15. – Are there any functional linkages between your factory and:
a – Other factories within the city/estate?

b – Other industries within the surroundng areas?

– Please specify the nature of linkages, if any.

16. – Would you like to relocate in the Al-Baha region?

– If no, what if the same incentives available here become available in Al-Baha, would you change your mind?

– If no, what if incentives in Al-Baha became better, would you change your mind?

– If no, why?

17. – Do you plan to keep functioning longer?

– If yes, for how long?

– If no, why?

18. – Do you wish to comment or add anything?

C – FOR INDUSTRIES WITHIN THE AL-BAHA REGION:

1. – When was this industry initially established?

2. – Was it initially established in the Al-Baha region?

– If yes, why in Al-Baha in particular?

– If no: a – Where were you located originally?

b – Why did you move from your original location?

c – Why did you relocate in Al-Baha in particular?

3. – Is this industry a branch of a larger one?

– If a branch, where is the headquarter industry located?

4. – What aims has this industry been established to achieve?

5. – Did you own the site of the industry before development?

– If no: a – How easily did you obtain it?

b – How much did it cost you to buy?

6. – How much did it cost you to prepare the site for development?

7. – Who provided you with services like electricity, water and telephone?

- Have you faced difficulties getting these services connected to your premises?

- How long did it take for these services to be connected to your premises?

8. - Have you faced problems in obtaining development permission?

- How long did it take you to obtain it?

9. - Have you faced problems in obtaining an industrial licence?

- How long did it take you to obtain a licence?

- How much did you pay for the licence?

- How much does it cost you to renew the licence?

- How has this cost changed through time?

- How often must you renew the licence

- Can the Ministry of Industry refuse to renew a factory licence?

- If yes, on what grounds could that happen?

10. - Do you receive any kind of incentives to keep functioning?

- If yes: a - What type of incentives?

b - Do you find such incentives generous?

11. - Have you thought about relocating in the Jeddah or any other industrial estate where incentives may be more generous?

- If no, why not?

12. - If infrastructure services, financial incentives and perhaps land became centrally concentrated within the region, would you then relocate in one of such areas?

- If no, why?

13. - How many workers are employed by this industry?

- How many of them are Saudis?

- How many of the Saudis are from the Al-Baha region?

- How has the % of Saudis employed in this industry changed through time?

14. - Do Saudis come to you searching for jobs?

- If yes: a - How frequently do they visit you for this purpose?

b - What level of qualifications do they mostly have?

c - What age range do they mostly represent?

15. - How much is the average monthly income you pay your employees?

16. - What types of raw materials do you manufacture?

From where do you obtain them?

17. - Where do you sell your products?

- What % of the total products do you sell within the Al-Baha region?
- What factors contribute to you not selling a higher % of your products within the Al-Baha region?

18. - Are there functional relationships between you and other industries: a - Within the region?

b - In other regions?

- If yes in any of the above please specify the nature of such relationships?

19. - Do you face any problems in your day-to-day operation?

- If yes, what kind of problems are they?

20. - In your opinion, are there constraints to industrialisation in the Al-Baha region?

- If yes, what are they?

- If no, why do you think so?

21. - Any additions or comments?

D - <u>QUESTIONNAIRE FOR EXPLORING THE POTENTIAL ABILITY OF THE POLICY TO CREATE JOBS FROM SCRATCH: QUESTIONS ADDRESSED MAINLY TO RICH PEOPLE.</u>

1. - What is your: Age?
   Level of education?

   Present work?

2. - Would you prefer to establish an individual manufacturing enterprise?

   - If no, why?

   - If yes, where? a - Within the region?

     b - Outside the region?

     - If outside the region, where and why?

3. - If the answer to question 2 is 'no', what if infrastructure services, incentives and technical help became centrally provided in the region, would you then change your mind?

   - If no, why?

4. - Would you like to see your son running a private manufacturing enterprise in the future?

   - If yes, where? : a - Within the region?

     If yes, why?

     b - Outside the region?

     If yes, why?

5. – Do you see any future for industrialisation in the Al-Baha region?

E – SOCIAL CONSERVATISM AND POTENTIAL NON-CENTRAL – CENTRAL MIGRATION : QUESTIONNAIRES ADDRESSED TO THE INHABITANTS OF THE STUDY VILLAGE WITHIN AL-BAHA.

1. – What is your: – Age?

Level of education?

Present work?

2. – Would you like to see industries spread throughout the region?

– If yes, why?

– If no, why?

3. – If you were unemployed, would you work in a factory?

– If no, why?

4. – Would you like to marry a girl whose father is a factory worker?

– If no, why?

5. – If infrastructure services were centrally concentrated within your region, would you move to live there?

– If no, a – why?

b – If jobs became concentrated in the same areas of infrastructure services, would you change your mind?

If no, why?

F – QUESTIONNAIRES ADDRESSED TO SMALL CAR WORKSHOPS, METAL SHOPS AND CARPENTERS WITHIN THE AL-BAHA REGION.

1. – When was this enterprise established?

2. – Was it established originally in the Al-Baha region?

– If no: a – Where was it located originally?

b – Why did it move from the original location?

c – Why has it relocated in Al-Baha in particular?

3. – Are you an independent or a branch of a larger enterprise?

– If a branch, where are your headquarters located?

4. – How many workers are employed by this enterprise?

– How many of them are Saudis?

– How has the Saudi % out of the total of workers in this enterprise changed through time?

5. – Do Saudis come frequently to you searching for jobs?

– If no, why is that in your opinion?

– If yes: a – How frequently does this happen?

b – What is the average educational level of such visitors?

c – What is the average age of these visitors?

6. – What is the average monthly salary you pay your employees?

7. – Do you receive public incentives?

– If yes: a – what are they?

b – Do you find them generous?

8. – What types of raw materials do you process?

– From where do you obtain them?

9. – Who are your customers?

10. – What % of your products do you sell within the region?

– Why do you not sell more within the region?

11. – Have you bought the site of the enterprise?

– If yes, how much did you pay for it?

12. – How much did it cost you to have the site prepared for development?

13. – How long did it take to have the electricity, water and telephone connected to your premises?

14. – If services, financial incentives and perhaps land were concentrated in a surrounding village, would you relocate there?

– If no, why?

15. – Do you wish to add any comments?

G – <u>QUESTIONNAIRE ADDRESSED TO THE HOTELS IN THE REGION. THE RESULTS WERE THOUGHT EXTREMELY IMPORTANT IN FINDING OUT ABOUT ALTERNATIVE OR SUPPORTING POLICIES – WHERE SUGGESTED BY THE EVALUATIONS</u>.

1. – When was this hotel established in the region?

2. – Was it established originally in the Al-Baha region?

– If no: a – Where was it located originally?

b – Why did it move from the original location?

c – Why did it relocate in Al-Baha in particular?

3. – Is this hotel a branch of a larger one?

– If yes, where is the headquarter hotel located?

4. – Did you buy the land on which the hotel is built?

– If yes, how much did you pay for it?

5. – How much did it cost you to have the site prepared (i.e. levelled) for development?

6. – Do you receive any type of public incentive to keep functioning in the area?

– If yes: a – What are they?

b – Do you find them generous?

7. – Have you faced problems and delays in obtaining development permission?

– If yes, please comment

8. – Who provided the water, telephone and electricity services for you?

– How long did it take for these services to be provided?

9. – How many workers are employed by the hotel?

– What % do the Saudis represent out of the total?

– What % do workers from the Al-Baha region represent out of the total of Saudis employed by the hotel?

10. – How did the % of Saudi employees in your hotel change through time?

11. – When do customers come to the hotel most?

– How many customers resided in the hotel last year?

– How many customers resided in the hotel last summer – i.e. during the months of Ramadan, Shawal, Dul-gedah and Dul-hejah, 1407?

12. – Have your customers increased or decreased from year to year?

– Can you demonstrate your previous answer with some statistics?

13. – In your opinion, what % do tourists represent from your annual total of customers?

_____

– In your opinion, how has that total changed through time?

_____

_____

14. – Do you find it profitable to keep functioning in AL-Baha?

_____

– If no, do you intend to move to another region?

_____

– If yes, where, and why to that region in particular?

_____

_____

15. – Please comment on the problems you face in the region:

_____

_____

16. – The future of the Al-Baha tourist activities is potentially more viable than that of industrial activities, do you agree and why?

_____

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