

THE INSTITUTIONAL CONTEXT OF NEW TOWNS
PLANNING IN UNCERTAINTY
THE CASE STUDY OF ABUJA

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PART THREE: ABUJA: CAPITAL DEVELOPMENT
IN UNCERTAINTY

11 THE REGIONAL CONTEXT

The official interest in relocating the Capital city is to evade the urban problems of Lagos, but in the FCT the problems have neither been solved nor disappeared. Doxiadis Associates' Regional Planning Report examines the existing and imported planning problems starting with population, employment, social services and transportation systems in the FCT. These will be the concern of the Capital Plans.

11.1 So far our concern has been to build up a picture of the institutional context in which Abuja New Federal Capital City is planned and implemented, first from the development of the concept of new towns in Nigeria to existing behavioural-environment systems, problems encountered, to changes that have occurred in the system. One of such changes was in population redistribution or urbanization in Nigeria. To complete the picture, we will study Abuja the New Capital as a case, as well as comparing it with other newly developed capital cities in the world. We may find out that with better knowledge of the uncertainties surrounding any planning behaviour, there might be a different approach for adapting Capital city planning to uncertainties.

11.2 Consequent to the problems of Lagos, which we shall return to later in Chapter 13, the Federal Military Government, in August, 1975, set up a Panel under the Chairmanship of the Honourable Mr. Justice T.A. Aguda, to advise on the location of the Federal Capital, with the following terms of reference:

- (a) To examine the dual role of Lagos as a Federal and State Capital and advise on the desirability or otherwise of Lagos retaining that role.
- (b) In the event of the Committee finding that Federal Capital should move out of Lagos, to recommend suitable alternative location having regard to the need for easy accessibility to and from every part of the Federation.

11.3 The Aguda Panel included Doctor Tai Solarin, the late Muhammad Musa Isma, Doctor Ajato Gandonu, Colonel Monsignor Pedro Martins, Chief Owen Fiebai and Professor O.K. Ogan.

11.4 The Panel undertook a working tour of some world capitals including the most recent ones, with a view to gathering useful information and data that would assist them in their work. They also toured the country extensively and received memorandum from interested individuals, organizations as well as from the then twelve State Governments of the Federation. It is pertinent to note that there was no Public Inquiry as understood in Britain and the U.S.A., where in some cases, major programme policies have been killed by the results of Public Inquiry.

11.5 However, on December 20, 1975, the Panel submitted its report to the Federal Military Government. In it the Panel concluded that

- (i) Lagos is incapable of playing a dual role of being the Federal and the Lagos State Capital in view of the overwhelming problems of inadequate land space for meaningful development commensurate with its status as the capital of Nigeria. The total land space in Lagos was estimated at 67.12 square kilometres and this was considered grossly inadequate for the use of the Federal Capital City alone;
- (ii) Lagos is identified with predominantly one ethnic group. A new capital in a more central location would provide equal access to Nigeria's great diversity of cultural groups;

- (iii) A New Capital is desirable that would be secure, ethnically neutral, centrally accessible, comfortable and healthful; and possesses adequate land natural resources to provide a promising base for urban development;
- (iv) A New Capital is needed as a symbol of Nigeria's aspiration for unity and greatness.

11.6 These highlighted the points that guided the Panel in arriving at a recommendation that the Federal Capital of Nigeria should be moved out of Lagos and located in an area South of Suleja covering 8000 square kilometres. The Panel concluded that a centrally located Federal Capital in a spacious area with easy access to all parts of the Federation would be an asset to the Nation and would help in generating a new sense of national unity.

11.7 However, on the issue of Lagos being identified with predominantly one ethnic group was over-emphasized. The argument is whether there is anywhere in Nigeria that cannot be identified with one ethnic group or the other, and with the Federal Government's "protective" policies for the so-called minority groups, they would after all wield disproportionate influences. Furthermore, the concept of "security" as applied by the Panel's Report conclusion (iii) tends to be ambiguous. If it connotes national defence, one doubts with modern war machines whether any location would be regarded safe; if "security" is implied to healthy environment, Abuja would not qualify at the first test because of the presence of disease vectors and inadequate source of portable water.

11.8 Nevertheless, the recommendation of the Panel was accepted by the Federal Military Government, and to give it a legal status the Decree (Act) No. 6 of 1976 was promulgated. Sections 1 and 2 of the Decree dealt with the creation of the Federal Capital Territory of Nigeria and the definition of boundaries, respectively. The Decree which is entitled (A) Federal Capital Territory Decree, 1976, Decree No. 6 was signed by the then Head of the Federal Military Government and Commander-in-Chief of the Armed Forces, General M.R. Muhammed.

11.9 Figure 11.1 illustrates the extent of land carved out from Niger, Kwara and Plateau States to form the Federal Capital Territory (FCT). It is located North of the confluence of the Rivers Niger and Benue at a point relatively central to all parts of Nigeria.

11.10 In the rest of the chapter attention will be paid to the existing socio-economic conditions in its regional context followed by the Regional Plan and the Master Plan proposals in Chapters 12 and 13 respectively.

The population of the FCT by major ethnic groups:

11.11 The information on the ethnic composition of the population of the Territory was based on the Doxiadis Associates Regional Development Report (1982, page 354) estimates in 1980, as shown in Figure 11.2.

11.12 The data showed that the dominant ethnic group in the FCT was by far the Gwari group, consisting of 87.3 per cent of the total population. This group is dominant in all the three portions donated by the States

FIGURE 11.1: NIGERIA: THE FEDERAL CAPITAL TERRITORY

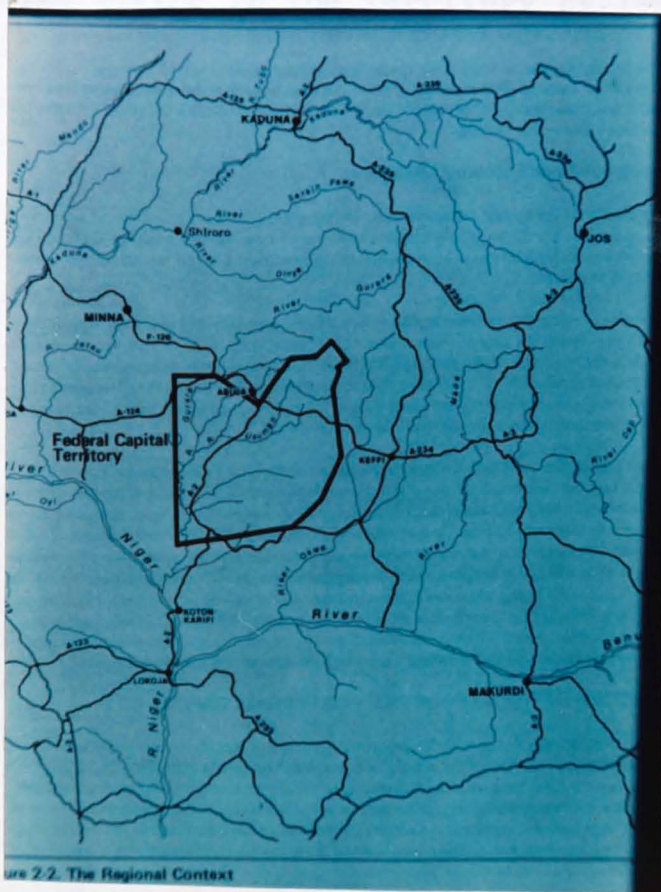


Figure 2.2. The Regional Context

of Niger, Plateau and Kwara. The Koro is the second most populous group especially in Niger State, followed by the Gwandara group in the Niger and Plateau States.

11.13 The category "Others" include all other ethnic groups living in the territory by 1980. Among them were the Hausas, the Yorubas, the Igbos and the Fulanis (the most populous ethnic groups in Nigeria by the 1963 Census).

11.14 Figure 11.3 shows the Nigerian population by ethnic groups in 1963. At the national level the Gwaris, the dominant group in the FCT, ranked only 16th accounting for 0.7 per cent of the total population of the country and 0.8 per cent of the population of rural areas.

11.15 This great variation occurring between the existing population of the FCT and other major ethnic groups, Hausa, 20.9 per cent; Yoruba, 20.3 per cent, and Igbo, 16.6 per cent, for example, on the one hand, and between it and Nigeria as a whole on the other, is very significant and it was one of the major reasons for the selection of the FCT site as the general area for the location of the New Federal Capital City. The main objective based on ethnic population size is to avoid domination by a single ethnic group - a situation that has persisted in Lagos and most of the other major urban centres of the country.

11.16 Although the Gwaris accounted in 1980 for nearly nine-tenths of the population of the Territory, their number at the national level is limited (378,168 in 1963, of whom 361,770, or 96 per cent, lived in rural areas of

FIGURE 11.2:

FCT ETHNIC COMPOSITION OF THE POPULATION 1980

Former State Portion	Gwari		Koro		Gwandara		Others		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%
Niger State	80,244	86.5	8,349	9.0	3,525	3.8	649	0.7	92,767	100.0
Plateau State	26,678	90.2	473	1.6	1,213	4.1	1,213	4.1	29,577	100.0
Kwara State	8,985	85.8	-	-	-	-	1,487	14.2	10,472	100.0
Total FCT	115,907	87.3	8,822	6.6	4,738	3.6	3,349	2.5	132,816	100.0

Source: Doxiadis Associates (1982, p. 354) Regional Development Plan for the Federal Capital Territory 2000.

FIGURE 11.3: NIGERIA: POPULATION BY NATIONALITY AND ETHNIC GROUP - 1963

Group	All Areas	Rural Areas	Group	All Areas	Rural Areas
Hausa	20.9	20.9	Higgi	0.3	0.4
Yoruba	20.3	15.5	Bura	0.3	0.3
Ibo	16.6	16.7	Efik	0.3	0.2
Fulani	8.6	9.6	Chamba	0.3	0.3
Kanuri	4.0	4.4	Shau		
Ibibio	3.6	4.1	Arabashwa	0.3	0.3
Tiv	2.5	2.9	Kaje	0.3	0.3
Ijaw	2.0	1.6	Jari	0.3	0.3
Edo	1.7	1.6	Kambari	0.3	0.3
Annang	1.2	1.4	Kobchi	0.3	0.3
Nupe	1.2	1.1	Angas	0.2	0.3
Urhobo	1.1	1.2	Karekare	0.2	0.3
Igala	1.0	1.2	Biom	0.2	0.2
Idoma	0.9	1.0	Yergam	0.2	0.2
Igbirra	0.8	0.9	Other Nigerians	6.6	7.5
Gwari	0.7	0.8	Other Africans	0.1	0.1
Ekoi	0.6	0.7	Non Africans	0.1	0.0
Mumuye	0.5	0.6			
Alago	0.4	0.4			
Ogoni	0.4	0.4			
Isoko	0.4	0.4			

Source: 1963 Census, Federal Republic of Nigeria.

the country. Given the assumption of future large-scale immigration to the FCT from all parts of Nigeria to constitute the FCT population by year 2000, virtually all the ethnic groups will have a good chance of representing themselves in a balanced proportion. Thus, the New Federal Capital Territory will manifest a truly Federal Character. This, however, will depend on the realization of the expected population target or a size near enough to it. Where the expected large-scale immigration fails to occur, it can be argued that the present dominant group, with improved social amenities and Federal Government support as a result of the urban development, will continue to hold sway for some time in the Territory.

11.17 The estimate on population of the FCT in 1980 failed to provide other demographic data to determine the characteristics and implications. For instance, it will be difficult to project the future population based on natural growth rate and migration. What number of the population requires primary education, shelter homes or needs to enter the labour force? It is absolutely difficult to determine these numbers without information on age/sex distribution.

11.18 The Resettlement Report put the population of the existing settlements at 132,816 persons. A number of inconsistencies have been noted about the report's findings. Firstly, about 265 out of the 778 settlements (Doxiadis Associates, 1981, page 310-11) were not indicated on the map. Secondly, about 12 of such settlements had no population sizes assigned to them and one doubts the political rationality of including such names. The above observations give credence to the suggestion

that the figure of 132,816 for the existing settlements might be exaggerated to have a political and financial score for the states adjoining the FCT.

11.19 The populations of the various settlements vary from 4384 for Karu to as low as 5 persons for Rubese. About 255 settlements have their populations ranging between 31 and 99, while still 173 settlements have populations varying between 5 and 30.

11.20 With the policy of limiting resettlement only for areas of the Capital City, two issues arise: Will the people be left in their natural state without providing them with social services? Or will they be provided with social services in spite of their limited population and dispersal? Following the former thinking would mean a contradiction to much spoken of "equalization" policy, whereas the latter policy would entail dissipation of scarce resources. Some argue, of course, that the Federal Nigerian Government has the obligation to raise the standard of living of its people by providing them with social services. Another point to note is that these splinter settlements belong to different tribal groups and with different tribal heads. Loyalty to different tribal heads within a settlement would constitute a constraint to encouraging resettling the people together in few areas. These constraints will be removed if people's participation in decision-making is encouraged from the outset. Whatever is the analysis, the analyst should treat these uncertainties as part of the cost for urban development.

11.21 The Territory has been ruled by the Emir of Abuja through a traditional hierarchy of Chiefs who undoubtedly introduced into the area several elements of

administration. The older villages usually built in good central location, were homes of the important chiefs who ruled over a wide area of the surrounding villages. The chieftancy institution was a recognised mechanism for administration in those states that contributed lands to the FCT. These were Niger, Plateau and Kwara States.

11.22 There were definite differences in the degree of development between the portions of the three States. Niger State had the largest portion with 84 per cent made up of Gawa, Gwagwa, Gwagwalada, Izom and Kwali. They remained relatively neglected. The Kwara State contributed 3 per cent which formed the Southern portion of Abuja, and was more developed than those settlements carved out from the Niger State. Karu and other settlements were originally in Plateau State and now formed 13 per cent of the FCT. Karu is comparatively better developed than its Western neighbours in Niger State. Abaji and Karu had the largest population densities in the FCT. This can be explained in terms of the influence of transportation network.

The Economy of FCT:

11.23 Because of absence of recent census figures in the country, the 1980 Survey by the Ad Hoc Presidential Committee on Resettlement provides an alternative source of information regarding the occupational structure of household heads in the FCT. The results of the survey are presented in Figure 11.4 below.

11.24 The analysis showed that 86.5 per cent of those surveyed have declared that they were occupied in farming.

FIGURE 11.4: OCCUPATIONAL STRUCTURE OF HEADS OF HOUSEHOLDS IN THE FCT - 1980

District/ State	Farming		Cattle Rearing		Crafts		Trading		Public Service		Other		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Gawu	751	80.8	-	-	12	1.3	23	2.5	120	12.9	23	2.5	929	100.0
Suleja	389	91.8	-	-	5	1.2	9	2.1	1	0.2	20	4.7	424	100.0
Kuje	4,819	90.8	25	0.5	53	1.0	98	1.8	62	1.2	249	4.7	5,306	100.0
Kwali	7,363	91.4	7	0.1	37	0.4	203	2.5	160	2.0	287	3.6	8,057	100.0
Bwari	4,521	92.1	26	0.5	27	0.6	73	1.5	93	1.9	168	3.4	4,908	100.0
Lapai	642	90.3	11	0.2	11	1.5	12	1.7	8	1.1	37	5.2	711	100.0
Niger State	18,485	90.9	59	0.3	145	0.7	418	2.1	444	2.2	784	3.8	20,335	100.0
Karu	1,083	66.6	7	0.4	24	1.5	94	5.8	228	14.0	190	11.7	1,628	100.0
Karshi	587	72.6	-	-	5	0.6	19	2.3	11	1.4	187	23.1	809	100.0
Toto	610	85.3	4	0.6	11	1.5	2	0.3	32	4.5	56	7.8	715	100.0
Gbadabuke	2,792	82.4	7	0.2	62	1.8	135	4.0	55	1.6	337	10.0	3,388	100.0
Plateau State	5,072	77.6	18	0.3	102	1.5	250	3.8	326	5.0	770	11.8	6,538	100.0
Koton Karifi	1,412	70.7	7	0.4	130	6.5	184	9.2	54	2.7	209	10.5	1,996	100.0
Kwara State	1,412	70.7	7	0.4	130	6.5	184	9.2	54	2.7	209	10.5	1,996	100.0
FCT Total	24,969	86.5	84	0.3	377	1.3	852	3.0	824	2.8	1,763	6.1	28,869	100.0

Source: Doxiadis & Associates 1982, p. 433/1980 Resettlement Survey, FCDA.

This reveals that the FCT is almost purely a rural economy. Those engaged in agricultural activities in Niger State portion of the Territory were more in number with 90.9 per cent, followed by Plateau State portion with 77.6 per cent. On individual settlement basis, the lowest share of the farming sector was recorded in Karu, where, however, it was still as high as two thirds of the total. Cattle rearing occupied a relatively small proportion of the total number of respondents with 0.3 per cent. The small figure is explained firstly by the fact that cattle rearing is primarily a Fulani occupation. The Fulani cattle rearers are always in transit in the FCT. Secondly, even among the permanent residents, cattle rearing is probably exercised as a secondary activity to farming, and thus has not been regarded as a main occupation.

11.25 The other sectors which include crafts, trading and public service, occupy relatively small proportions of the total number surveyed. The relatively high proportion of those classified as "others" with 6.1 per cent, especially in the Plateau State portion and Kwara State portion, can be explained by the informal nature of most economic activities in the area, which is not an exception of the character of the whole country.

11.26 With the exception of construction related activities for the development of the New Federal Capital City, the sectoral economy of the FCT was traditionally arable. The exploitation of the resources of the FCT had been done in a non-economic way, mostly on a family basis aiming at meeting the daily needs of the family. The system of extended bush fallowing was practised as is done in most parts of the country. It is a system

whereby fields are cleared of their original vegetation cover by burning, cultivated briefly for a year or two and then left to fallow for some years. The use of fire causes an ecological disturbance especially in a savanna and semi-arid environments.

11.27 The types of crops cultivated include corn, yam and guinea corn, all in limited quantity, inadequate to cover the needs of the inhabitants of the territory. Animal production was also limited because of the reason given above. A few sheep, goats, pigs and fowls were kept in the area for domestic use.

11.28 There was no organised forestry and the existing ones were exploited for firewood or depleted by over-grazing by the cattle Fulanis.

11.29 Fishing was not developed, partly because few large water bodies exist in the Territory and partly the existing opportunities have not been developed.

11.30 There were a number of quarries in the FCT. Of these several were newly opened in order to meet the demands arising from the construction of the new capital. The marble quarries, some 24 kilometres North-east of Gwagwa village are examples of mining operations in the territory.

11.31 The FCT is fairly abundant with quarrying sites. It is, therefore, imperative to control the creation of quarries for environmental and aesthetic reasons.

The manufacturing sector:

11.32 The units of manufacturing industries observed in the Territory were basic which provided a limited range of products for the principal village where they were located. Examples of such industrial units include the cement block workshops found at Kuje, Gwagwa, Abaji, Gerki, Paiko and Karu; carpenter workshops and various motor and vehicle repair workshops at Gwagwalada, Rubochi and Abaji, the groundnut mill in Pai, the sawmill in Dafa, and others.

11.33 As the construction activity in the Territory gains momentum and more workers move into the area, these small-scale manufacturing shops tend to increase in a rather unplanned manner along the main transportation networks, in order to meet up with the rising demand.

11.34 Along the border of the FCT (East of Gurara River) runs the multi-purpose pipe-line which has a diameter of 41 cm, and was initially used to transport motor gasoline, dual purpose kerosine and automotive gas oil. From the middle of 1980 when the Kaduna refinery was commissioned, the pipe line is used to transport crude oil from Escravos through Warri. There are two pumping stations in the FCT serving this pipe-line, one near Abaji and another at Izom.

11.35 However, there seem to arise serious pollution problems, especially near Gurara River, and no decision has yet been taken.

Tertiary sector:

11.36 There was no central market place in the FCT where the marketing of local produce could be carried out. The big centres like Minna, Bida and Keffi are rather far for the local traders, so the trading of agricultural products was usually done on roadside markets.

11.37 All the important settlements of the FCT were also market places of their corresponding area. The settlements of Gwagwalada, Kuje, Rubochi, Bwari, Gwagwa and Karu belonged to this category.

11.38 In these settlements the market served both for the trading of local agricultural and craft products as well as imported goods.

11.39 The economy of the FCT was traditional in scope and had a low degree of monetization. Barter was still practised among the indigenes, especially with regard to agricultural products. The development of the Federal Capital City created a dynamic economy that money is becoming a recognised medium of exchange.

11.40 Figure 11.5 shows the distribution of the labour force by major occupation group. The comparative labour force figures by the four areas, Niger, Benue, Kabba in Kwara State and the FCT do not vary much. They show similar characteristics, especially in occupational groups, where they are marginally represented for instance in Administrative, Executive and Managerial cadres. Niger had 0.1 per cent, Benue 0.1 per cent, Kabba 0.2 per cent and the FCT had 0.1 per cent. And in the

FIGURE 11.5: FCT DISTRIBUTION OF THE LABOUR FORCE BY MAJOR OCCUPATIONAL GROUP

Occupation	% Distribution in the three Provinces			FCT	
	Niger	Benue	Kabba	% (Weighted Average)(2)	No. of Persons
Professional, Technical and Related	1.2	1.1	1.5	1.2	466
Administrative Executive and Managerial	0.1	0.1	0.2	0.1	39
Clerical Workers	0.2	0.3	0.3	0.2	78
Sales Workers	8.6	3.2	9.0	6.8	2,641
Farmers, Fishermen, Hunters, Loggers and Related	74.9	77.4	74.0	75.7	29,406
Miners, Quarrymen and Related	0.0	0.0	0.0	0.0	-
Transport and Communication Workers	0.4	0.3	1.4	0.4	155
Craftsmen, Production Process Workers and Labourers	10.3	3.0	8.3	7.7	2,991
Service, Sports and Recreation Workers	3.8	5.5	4.5	4.4	1,709
Unspecified Workers	0.2	8.6	0.1	9.1	1,204
Total Employed	99.7	99.5	99.3	99.6	38,689
Unemployed	0.3	0.5	0.7	0.4	155
Total Labour Force	100.0	100.0	100.0	100.0	38,844

Source: Doxiadis Associates, 1982, p. 434
1963 Census Report - Nigeria.

occupational group where they were heavily represented, such as farming, fishing, hunting, logging and related activities, the four areas had 74.9 per cent, 77.4 per cent, 74.0 per cent and 75.7 per cent, respectively.

11.41 The FCT showed in absolute terms 29,406 employees in the primary sector (farming, fishing, hunting etc.) as against 39 in the Administrative/Managerial/Executive group. Another aspect of the FCT labour force which is well represented is the craftsmen, production process workers and labourers group with a 7.7 per cent (2991 employees). This is followed closely by sales workers group with 6.8 per cent (2641 employees).

11.42 Although this small paragraph and the summary presented in Figure 11.4 provide only a cursory view of what forces are at work in the FCT, they do give an idea of the traditional nature of the economy. Notably they emphasize that a great demand for labour under-represented or not represented at all has to be met from outside. Secondly, industrial development is absolutely absent in the territory and any industrial development has to depend on importation of adequate labour force. These two aspects of socio-economic environment will dominate any meaningful approach to planning the Territory. In no region have depreviation and dependence been demonstrated more in Nigeria than the FCT.

Settlements in the FCT:

11.43 The principal indigenous tribe in the FCT is the Gwari. Their establishment in the area represents an extreme Southward movement of the tribes from the North under expanding population pressures into remote areas

near the River Niger on the Southern border. The only sizeable town East of the Gurara River is Suleja, seat of the historic Abuja Emirate. However, Suleja is not within the FCT, but its role in the development of the FCC is so important that it requires separate attention below (Section 11.52 - 11.59).

11.44 One feature of the area now known as the FCT which was a major determinant of settlement were the inselbergs and high hills where the inhabitants could take refuge when attacked. Gerki is an example of such a village built in hidden or defensible location on high hills with rocks; its name being derived from the Hausa phrase "impregnable". After tribal hostilities or the slave trade many of these "hill settlements" relocated themselves to more favourable locations where they had access to water and farmland. The majority of the inhabitants had traditionally been subsistent farmers depending entirely on farmland and human labour for all the food they needed.

11.45 The traditional pattern of settlements in the FCT was nuclear and their sizes varied from the large systems as Abaji, Gwagwalada and Karshi, to extremely small ones as Waje in Robo Plains, Shere in Shere Karo and Shere Bwari in the Aso-Bwari Hills which are located in the remote and rough terrains. They have few dependent villages and low total population.

11.46 Because of recent road construction, the pattern of some of the settlements has changed and become more linear, reflecting ribbon development to take full advantage of road side commercial activities. Approximately 22 per cent of the settlements are directly served by some type of roadway. Many of the remaining

villages are in extremely remote locations presently connected to surrounding settlements only by footpaths.

The FCT immediate wider area:

11.47 Prior to the development of the NFCC - Abuja and other satellite new towns, there was no urban population concentration as such in the FCT, but adjacent to the Territory there are a number of urban centres. These together with their rural areas form the FCT immediate wider area. The "Immediate Wider Area" is defined as the one in which the vast majority of the more frequent trips to and from Abuja may take place. The major criterion for its definition is the distance in terms of time from the New FCC as defined by the isochrone of two hours created by the major road arteries connecting the Capital to the rest of the country. Thus, the Immediate Wider Area of the New Federal Capital City is defined as consisting of:

- (i) In the Niger State:
 - (a) the Lapai District, which coincides with the Lapai Local Government Area;
 - (b) the Agaie District, which coincides with the Agai Local Government Area;
 - (c) the Suleja District, which coincides with the Suleja Local Government Area;
 - (d) the districts of Paiko, Fuka, Adunu, Kafin, Kanu, Gini, Guni, Dangunu, Boso and Maikunlele of the Chanchaga Local Government Area;

- (ii) In Plateau State:
 - (a) the Keffi Local Government Authority;
 - (b) the Nassarawa Local Government Authority;
 - (c) the Akwanga Local Government Authority.
- (iii) In Kwara State, the District of Koton Karifi of the Koggi Local Government Authority.
- (iv) In Kaduna State:
 - (a) the Kagaro District of the Kachia Local Government Authority;
 - (b) the Kwoi District of the Jema's Local Government Authority.

(See Figure 11.6 below).

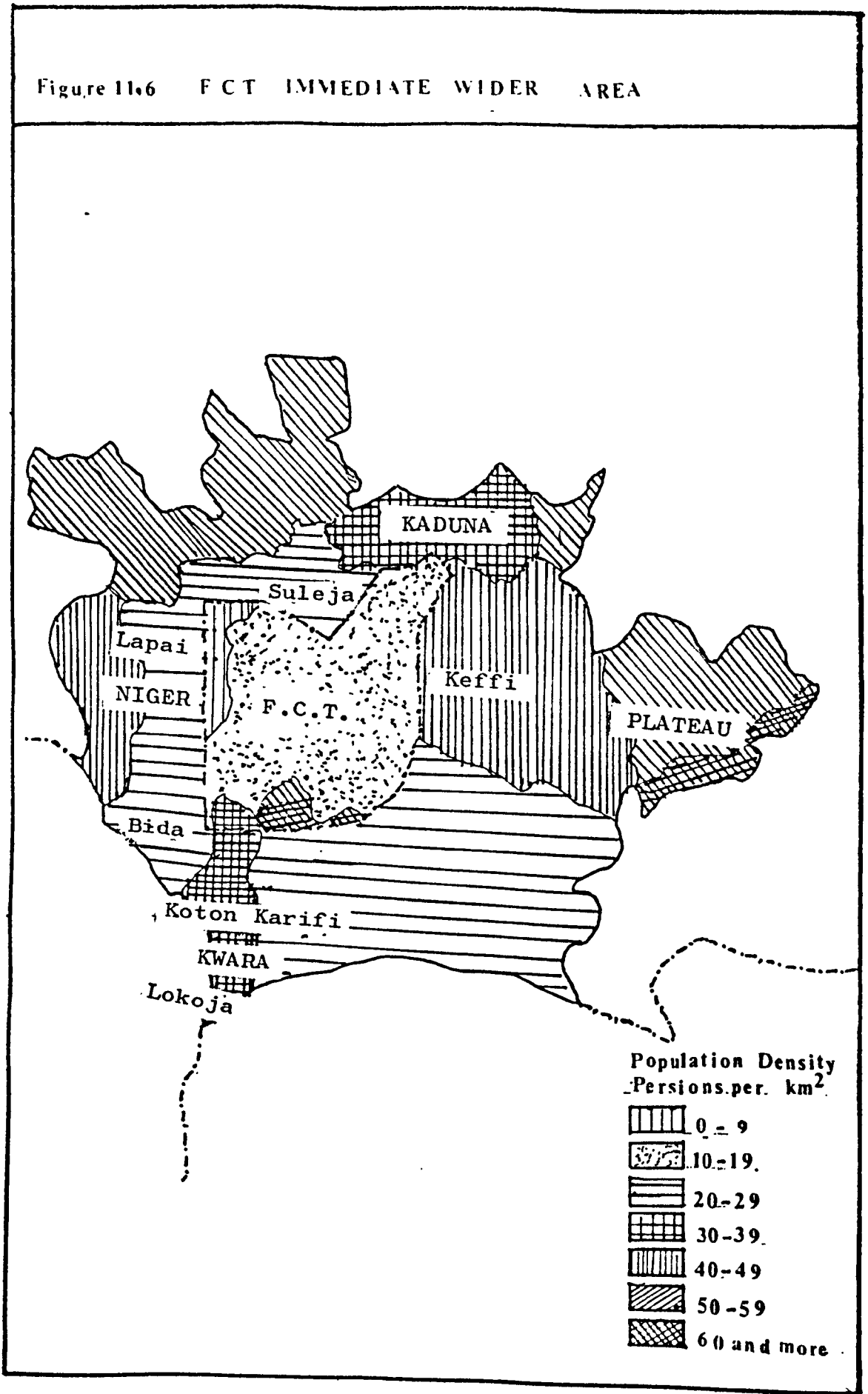
In view of the definition of the FCT Immediate Wider Area, the largest urban centres in the area include:

Ilorin is the largest urban centre in the area and is the Capital of Kwara State. It has a population of 500,000 and is sixth among the major urban centres of Nigeria in terms of population size. No settlement in the area has more than 500,000 inhabitants.

Ilorin is followed by Kaduna in Kaduna State with a population of 387,000; Minna with a population of 91,000 is the Capital of Niger State. Others include Keffi in Plateau with a population of 69,000, Suleja in Niger State with 17600 inhabitants and Koton Karifi with 11,500 persons.

11.48 Also Figure 11.6 shows the populations, densities and average settlement sizes in the FCT immediate wider area in 1980. The Suleja, the Lapai and Agaie Districts

Figure 11.6 F C T IMMEDIATE WIDER AREA



in Niger State and Nassarawa Local Government Area in Plateau State have each a population density ranging between 20 and 30 persons per square kilometre. However, the portion of the FCT close to either Suleja District or Lapai District has a lower population density of not more than 10 persons per square kilometre. The population density of Ghako District in Agaie L.G.A. and Keffi L.G.A. falls each between 40 and 50 persons per square kilometre. North and South borders of the FCT are Kagoro and the Kwoi Districts in Kaduna State and Koton Kariri in Kwara State respectively have densities ranging from 30 to 40 persons per square kilometre. The areas that have relatively the highest population densities in the region are the districts of Paiko, Fuka, Adunu, Kafin Koro, Gini Guni, Dangun, Boso and Kaikunlele of the Chanchanga L.G.A. in Niger State and Akwanga L.G.A. in Plateau State with a population density falling between 50 and 60 persons per square kilometre.

11.49 The population density per square kilometre varies from place to place even within the same district. In all, it varies from 74.7 persons per square kilometre in Chanchanga to 26 persons per square kilometre in Suleja. When the various densities are compared with population densities found in some areas in Southern Nigeria or the most populated parts of Northern Nigeria, it is easy to agree that the entire Middle Belt Area is yet free from population pressure. Again this population density pattern prevailing in the entire belt explains to some extent the scarcity of social facilities found in the FCT and the surrounding areas and the negativity of the attempt to provide more under such population distribution pattern.

11.50 Doxiadis Associates (1981, page 310-311) concluded that:

- (a) the FCT is primarily a rural area, more so than Nigeria as a whole;
- (b) this is more pronounced in the case of the New Capital Territory Immediate Wider Area;
- (c) there are some large cities in the wider area; they are, however, located at fairly large distances from the FCT itself and none of them seems to be functioning yet as a clearly dominant regional centre for the Middle Belt of the country. Furthermore, their numbers and population are fairly limited when compared with other regions of the country and especially in the Southern areas.

11.51 Thus they said that not only Abuja itself, but also the other settlements of the FCT that might grow to substantial population sizes, had a very good chance of assuming functions of wider regional importance. Nevertheless, with the absence of highly populated settlements in the immediate vicinity capable of exporting population to the FCT, it means that the FCT will eventually depend on the highly populated cities in the South and North of the country for growth.

Suleja Town:

11.52 Suleja, a seat of the Local Government Area and the Emirate and one of the four settlements considered by the Niger State Regional Plan study as the State's urban centres, has already assumed a very peculiar and important role. Though politically outside the FCT, it is one of the wider area's major settlements closest to the New Federal Capital City, about 20 km to the city. It is located at the Northern boundary between the FCT and Niger State along the A2 Road. Figure 11.7 illustrates the location.

11.53 From the outset, Suleja has been selected as the seat of the administrative authorities, of FCDA and FCTA, primarily concerned with FCC and FCT matters respectively.

11.54 The impact of this role on the town has been tremendous. For instance the population of Suleja L.G.A. in 1963 was 10,000, in 1979 it was estimated to be 14,000, and it increased to 17,600 in 1980 (Master Plan for Suleja, 1979, page 2), and in 1982 Doxiadis Associates in the Regional Development Plan for the Federal Capital Territory 2000, estimated the population to be about 30,000 if the FCDA and FCTA staffs and construction workers were added (Doxiadis Associates, 1982, page 311).

11.55 Assuming the correctness of the 1963 census, one can conclude that the rate of population growth of the town between 1963 and 1979 was 2.1 per cent per annum according to the Master Plan for Suleja. This indicates a very low compound rate of increase if compared with the

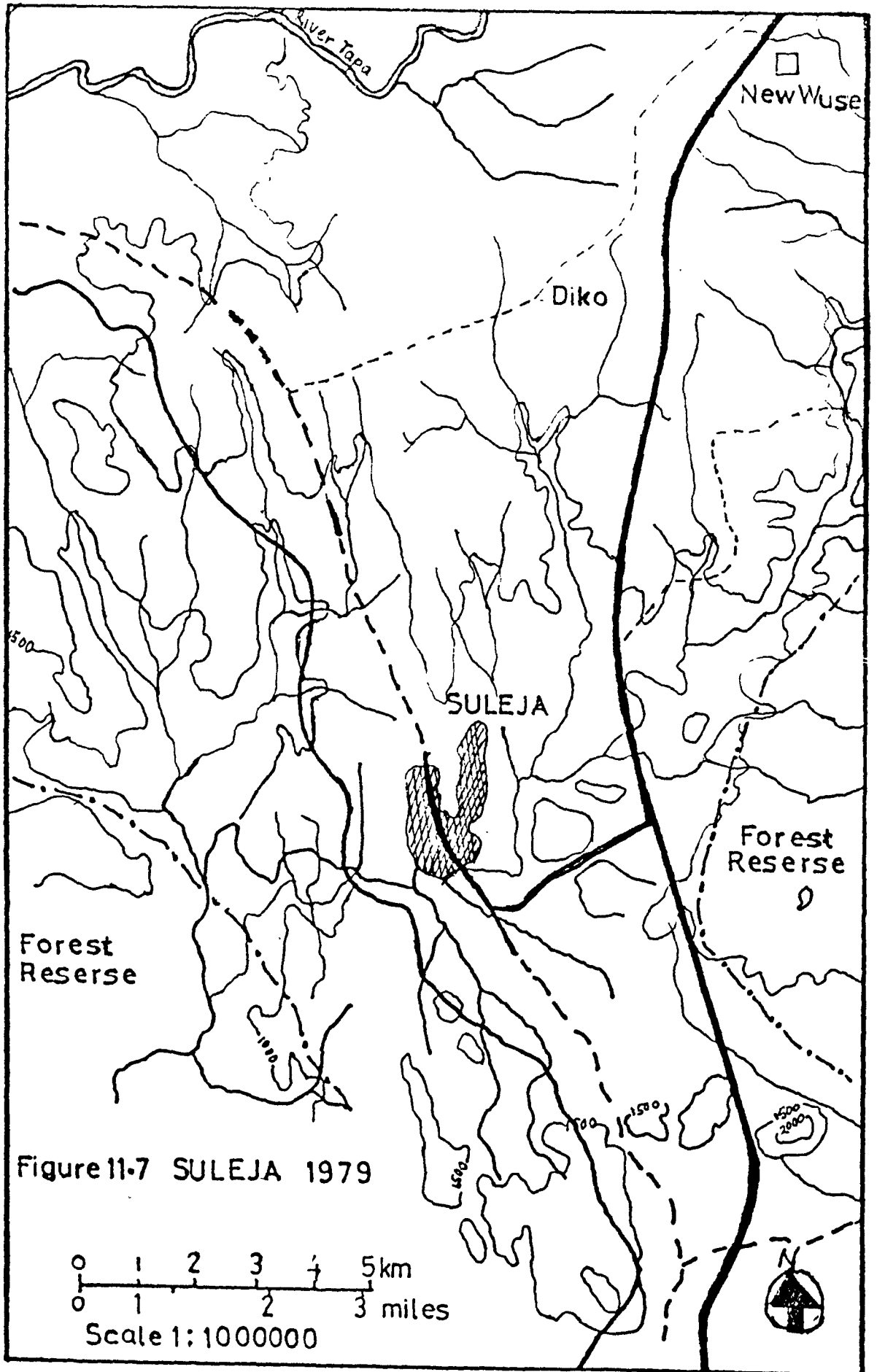


Figure 11.7 SULEJA 1979

0 1 2 3 4 5 km
0 1 2 3 miles
Scale 1:1000000

average rate of growth of the entire Niger State which has an official growth rate of 2.7 per cent per annum (Master Plan, 1979, page 32). Between 1979 and 1980 when the FCDA and FCTA had been established in Suleja, the growth rate was estimated to be 2.5 per cent per annum and the increase in population was 40 per cent. And between 1980 and 1982 the growth rate was estimated at 6.5 per cent; of this value, 4 per cent per annum was attributed to in-migration. It is important, therefore, to state that any sizeable increase of population in future cannot be as a result of a high natural increase but most importantly to the increase of considerable in-migration.

11.56 The growth of the primary school enrolment showed similar trend, as illustrated in Figure 11.8.

FIGURE 11.8: GROWTH TREND OF PRIMARY SCHOOLS
ENROLMENT

	1976-	1977-	1978-	1979-	1980-	Percentage Growth	
	1977	1978	1979	1980	1981	Up to 1980	Up to 1981
No. of school children	8973	14952	19297	24359	10457	60%	16.5%
Academic Staff	405	968	1092	1211	596	200	47
Non-Teaching Staff	23	26	29	32	27	39	17

Source: Suleja L.G. Education Department, 1982.

11.57 The data on education did not include the Secondary Schools enrolment or specify age groups of the school children; what the data was able to show was the growth trend of primary schools enrolment during the period under review, 1976-1981. The trend showed that between 1977 and 1981 the percentage increase of primary school enrolment, teaching staff and non-academic staff were 60 per cent, 200 per cent and 39 per cent respectively, but reviewing the trend between 1976 and 1981, the growth showed a downward trend after 1980 with the growth of primary school children, teaching staff and non-academic staff at 16.5 per cent, 47 per cent and 17 per cent respectively. The change was explained that in 1980-81 academic year, 122 primary schools and 782 teachers were taken over by the FCT Administration.

11.58 In the industrial sector, as shown in Figure 11.9 below, out of 105 firms which had applied for sites between 1976 and 1981 and had been given planning permission, 42 of them had established their branch offices at Suleja. 95 per cent of the established industries were construction companies, Consultancy firms or firms engaged in the production or distribution of building materials, such as cement, iron rods, cement blocks, precast concrete slabs and others, and whereas the rest were in food industries. The firms were reluctant to give the number of their employees, and they gave no reasons for their actions.

11.59 To cope with the massive growth of development in the Local Government Area the employees of the Local Government have also been increased. Figure 11.10 illustrates the growth trend of the staff of Suleja Local Government.

FIGURE 11.9: THE GROWTH OF INDUSTRIAL ESTABLISHMENTS
IN SULEJA (1976 - 1981)

Year	Firms applied/approved	Cumulative Figure
1976	15	-
1977	20	35
1978	30	65
1979	20	85
1980	10	95
1981	20	115

Source: Local Government, Suleja, The Area Estate Office, 1982.

FIGURE 11.10: THE GROWTH TREND OF THE STAFF OF
SULEJA LOCAL GOVERNMENT

Year	No. of Employees	Percentage increase
1976-1977	550	-
1977-1978	700	27%
1978-1979	1100	57%
1979-1980	1100	-
1980-1981	1200	9%

Source: Suleja Local Government, Staff Office, 1982.

11.60 Analysis of the consequences of this type of growth leads to the following conclusions:

- (i) The influx of large numbers of people in the town and its surrounding areas has been accompanied by a fast growth and expansion of economic activities of the secondary sector - construction materials, building of houses, repair shops of all kinds and so on - , the tertiary sector - trade of all items, board and lodging establishments, business and personal services, and according to the country's traditional patterns, of informal sector. Economic life in Suleja town today is much more vigorous than in any of the FCT settlements, and, given the proximity of Suleja to Abuja, has created a momentum for growth that will probably continue unabated for many years to come. On the other hand there is the question of Suleja's role changing through time during the construction period. Suleja fulfils a lot of functions which may change as construction slows down and the FCC becomes operational. The implication of this type of situation is that if the volume of construction work fluctuates over the years many of the workers will be unemployed at different periods while continuing to draw from the town's social and other infrastructural services. Revenue from income taxes may also be affected and the social life of the unemployed workers may be affected that the consequence will be out-migration. The solution may be found now in establishing those industries and firms which may not relocate in the FCC so that the population of the town will be maintained.

- (ii) Many new houses have been constructed in the FCDA Field Base for the accommodation of the FCDA and FCTA personnel. These houses are of much better quality and standards than anything the FCT itself has to offer today and will be available for new tenants when the authorities will move to their new locations. The FCTA moved to Gwagwalada in February 1982, while the FCDA is programmed to move at latest by September, 1982, when the President of the Federation and the Federal Ministries and Authorities are expected to move to Abuja. The price of such housing, whether sold or rented, will inevitably be high by the area's standards, thus creating the potential for higher income people to reside in Suleja either on a full-time or on a part-time basis, and this will create an additional impetus for the economic development of the area.
- (iii) Suleja was not ready for what it is experiencing now. The road networks were limited, many of the bridges were in bad condition. Few habitable houses existed, schools were inadequate for the number of children, the church buildings were too small for the population of the present members. Surveys and analysis of the various infrastructural facilities of the town reveal serious deficiencies both in capacity and operation. With increased development pressures, these problems have been seriously exacerbated.

The Nigerian Standard of Thursday, October 29, 1981, in its article titled, "Suleja Local Government Scribe cries out for help", observed:

"The Suleja Local Government Secretary Alhaji Adamu B. Muazu, had called for special grants from the Federal Government, saying - 'we bear the brunt for the siting of Abuja here'. The Secretary said in an interview recently: 'Our roads, schools, hospitals and markets are in a deplorable condition because of over-population and congestion caused by the siting of Abuja here. The staffs of both the Federal Capital Development Authority and the Federal Capital Territory Administration operated temporarily in Suleja. Job seekers, contractors and businessmen are attracted here. Even after the staff of the FCDA and FCTA had left Suleja for the FCC and Gwagwalada respectively, the problems created by them would remain with us'. He continued to say: 'The Local Government would not look onto the Niger State Government for special grants because the State Government has just enough, moreover it did not create our problems, but the Federal Government did'.

Alhaji Muazu intimated that his government needed about 82 more classrooms to enable the Primary Education System to function conveniently because they admitted more than 40 children per class, all because there were too many children whose parents were in Suleja for one connection or the other with the Federal Capital Development Authority. He emphasized that the poor condition of roads in Suleja and the pitiful environmental condition could not be attended to as they had to give priority to education, even though their financial strength was bleak. Specific efforts have been made by the Federal Capital Development Authority to rehabilitate these infrastructural networks. For instance, the road linking Kaduna

Road and Suleja Town had been widened and a modern bridge constructed to ease the increased vehicular traffic in the town. Local roads are graded and provided with culverts by the Authority, the Niger State Government actually is sitting on the fence and watching what goes on. These interim measures, no doubt, have affected the preservation of the layout of the traditional urban area. Probably it might have paid the Suleja Local Government better to institute a powerful Development Control Agency to prevent the various uncontrolled developments going on in the town.

(iv) Finally, Suleja has benefitted in many ways from the development of the FCC, better infrastructure, especially roads, and most importantly, the economic benefits accruing through increased demands for goods and services. It seems, therefore, that the case of Suleja is a particular one. Although not formally in the FCT, its future is much more strongly related with the new Federal Capital than any of the other settlements in the wider area and possibly in the whole country, including the FCT itself.

Social Services:

11.61 According to the Ecological Survey (1977, pages 32-34) of the FCT population as shown in Figure 11.11 below, there is no clearly dominant religious group in the FCT. There were relatively more people with 39.5 per cent following the traditional religion, followed by Moslems with 34.5 per cent, and then Christians with 25.8 per cent. Even though the Moslem sect does not possess the majority, it holds the political power in most of the States from which the

FCT was formed. The failure of the Moslem sect to combine political power with majority of the people can be due to the following reasons:

Firstly, in most of the northern part of Nigeria, traditional religious affiliations have been strongly affected by "the aggressive spread of Islam at the beginning of the nineteenth century" coming from the North. However, "in the somewhat broken and rocky country of large parts of the Middle Belt", Fulani cavalry was not very useful for the spread of Moslem religion, and thus traditional beliefs continued to persist to a large extent.

Secondly, the Christian religion spread throughout Nigeria, coming from the Southern parts of the country. The impediment to its spread Northwards was due to the distance involved and more importantly to the British colonial policy which did not want to interfere with the existing status quo as far as religion and religious conversions were concerned in Northern Nigeria. Christian conversion was only allowed in those areas the Moslem authority regarded as pagan. Therefore, the spread of Christian religion was limited as much as the Moslem religion in the Middle Belt of Nigeria.

11.62 Within the FCT there appear some differences in the religious affiliations of the inhabitants of the former three state portions. Thus, while in Kwara State more than half of the population (58.8 per cent) of the inhabitants are Moslems, the relative majority in Plateau State are Christians and in Niger State are traditional religious believers. In spite of the religious differences, one can conclude that the various religious sects co-exist harmoniously in the FCT without

FIGURE 11.11: RELIGIOUS AFFILIATIONS OF THE POPULATION - 1980

Former State Portion	Moslem		Christian		Traditional		Others		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%
Niger State	30,057	32.4	21,615	23.3	40,817	44.0	278	0.3	92,767	100.0
Plateau State	9,583	32.4	10,322	34.9	9,642	32.6	30	0.1	29,577	100.0
Kwara State	6,158	58.8	2,262	21.6	2,052	19.6	-	-	10,472	100.0
Total FCT	45,798	34.5	34,199	25.8	52,511	39.5	308	0.2	132,816	100.0

Source: Doxiadis Associates 1982. Regional Development Plan for the Federal Capital Territory 2000.

any group assuming absolute dominance.

11.63 The IPA Report (1979) indicated that very few of the existing settlements had some type of health, education or welfare services. The 13 settlements in the FCT which were known to have community facilities or services are shown in Figure 11.12.

FIGURE 11.12: EXISTING SETTLEMENTS AND COMMUNITY FACILITIES IN THE FCT

Existing Settlements	Social Facilities				
	Primary School	Church	Dispensary	Market	District Headquarters
Wuse	1	-	-	-	-
Karu	1	-	-	1	1
Garui	1	-	-	-	-
Bwari	-	-	-	1	-
Garki	1	-	1	-	-
Gerki	1	-	-	-	-
Izom	1	-	-	1	-
Gamu	-	1	-	-	-
Dafia	1	-	-	-	-
Dangara	1	-	-	-	-
Abaji	1	1	-	-	-
Masaka	1	-	-	1	-
Gwagwalada	-	-	-	-	-

Source: IPA Report (1979). Master Plan for Abuja.

11.64 Gwagwalada, one of the largest settlements in the territory was not shown to have any facilities. Gwagwalada has a direct road link with Suleja, the Local Government Headquarters, and must have depended on it for its social services. Another possible explanation is that one of

the major instruments for Emirs to hold suzerainty over their dependent settlements was centralization of both social services and administration. Thus it would not be seen as a deprivation of the people should such services be not provided locally but at the headquarters.

11.65 The significant thing to note from the above figure is that the Territory was unprepared to cope with the sudden influx of large migrants. Children had few schools to attend to. There were no improved health facilities for health care delivery. The only General Hospital at Suleja was under great pressure. Similar to social facilities, adequate housing was lacking and the traditional shelters were not comfortable enough to the liking of any Westernised person. The acute shortage of housing compelled most of the construction workers to leave their families behind. The consequence was that the number of unmarried men outstripped that of "free ladies". Prostitution, drunkenness and fraud mounted very high. Of the construction workers and those unemployed who paraded themselves as contractors who lived in the FCT in 1981-82, 90 per cent of them had criminal records. I do not hold a record against a man, the Suleja Chief Magistrate Court does, but it gives you an idea of the people who were there then. The crew had no control and they regarded it as an act of valour when they had cheated others or stolen from them.

Existing transportation facilities:

11.66 The FCT is served by 175.0 kilometres of primary roads and about 435.0 kilometres of feeder and rural connector roads. These are made up of North-South road (A2 Road) itself a primary road of international, national and regional importance. It is a section of the

Trans-Saharan highway, one of the four important North-South national road corridors, and the only axis passing through the FCT connecting it with the Northern and Southern parts of Nigeria. It connects Abaji, Gwagwalada, Suleja with Kaduna in the North and Lokoja in the South.

11.67 The Northern East-West road corridor (A234 Road) also a primary road, is of national and regional importance. It connects the FCT with the Plateau State in the East and the Niger State in the West.

11.68 The Southern East-West road corridor (F134 Road) a minor arterial of interstate level, connects the Southern FCT with the Eastern States and Western States of Nigeria. It passes through Baro, Abaji, Toto and Lafia.

11.69 A second category of roads in the FCT is the tertiary network or class C Roads, Tertiary roads are of short lengths, connecting secondary roads to each other or secondary to primary roads and rarely primary roads to each other. They are feeder roads to primary and secondary roads. This forms 8.3 per cent of the total road lengths in the FCT.

11.70 The final category of roads is the rural connector roads or class IV roads. They are links of very short lengths serving the needs of two or more communities or connecting agricultural areas with the villages and with tertiary as well as secondary roads. They are feeder roads and form 63 per cent of the total road length. See Figure 11.13 below. Ideally most of these roads are tertiary roads, but due to the limited access they provide and degree of motorability, they have been classified as rural or feeder roads.

FIGURE 11.13: LENGTHS OF ROADS WITHIN THE FCT

Type of road	Length (kms)	% of total roads
Primary axis	175.0	28.7
Secondary axis	-	-
Tertiary	50.5	8.3
Feeder roads	384.5	63.0
Total	610.0	100.0

Source: Doxiadis Associates, 1982, page 719.

11.71 Compared with some states in Nigeria (Figure 11.14) density of road network in the FCT of 0.02 is lower than the national average of 0.11 and slightly lower than those of the neighbouring states of Niger and Kaduna with 0.03 and 0.04 respectively. But when considered on road density population ratio, that kilometre per 1000 persons the FCT had a high proportion only next to Niger State. This confirms the low population distribution of the Territory. The FCT lacked other means of transportation as by 1980.

11.72 On the micro-level the road network systems have great influence on the settlement patterns. Thus ribbon type of settlement pattern developed along the Northern and Southern East-West roads of A234¹ and F134² respectively passing through the Territory. Because

-
1. Along the Northern East-West road (A234) are located Keffi, Karu, Nyanya, Wuse, Edu, then Suleja.
 2. Along the Southern East-West road (F134) are located Lafia, Toto, Abaji and Baro.

FIGURE 11.14:

ROAD DENSITY STATISTICS

State	Area Sq. kms.	Population (1980) x 1000 inh.	Federal Trunk A & F roads (kms)	State Trunk B roads (km)	Total A, F & B roads	Road Density by Area (km/sq. km)			Road Density Population (km/1000 inh.)		
						A & F	B	Total	A & F	B	Total
Kaduna	70,209	6,216.7	1,396	1,114	2,510	0.02	0.02	0.04	0.22	0.18	0.40
Kwara	60,388	2,600.7	2,023	1,308	3,331	0.03	0.02	0.06	0.78	0.50	1.28
Plateau	50,000	3,074.2	1,452	1,500	2,952	0.03	0.03	0.06	0.47	0.49	0.96
Niger	74,244	1,811.9	1,435	1,040	2,475	0.02	0.01	0.03	0.79	0.57	1.36
Lagos	3,580	2,476.3	140	130	270	0.04	0.04	0.08	0.06	0.05	0.11
Cross River	28,180	5,312.0	1,454	2,696	4,150	0.05	0.09	0.15	0.27	0.51	0.78
All Nigeria	923,768	84,731.0	30,000	70,000	100,000	0.03	0.07	0.11	0.35	0.83	1.18
F.C.T.	8,247	132.0	175	-	175	0.02	-	0.02	1.33	-	1.33

Source: Doxiadis and Associates, 1982, page 718.

the areas are accessible by road, they are the most populated settlements in the Territory. Migration from other parts of Nigeria made the population heterogeneous. The sights of heaps of yams and other farm products along these routes is an indicator of the impact of the transportation networks on the localities. On the contrary, the development of recent new roads in the area has contributed to the alteration of the traditional pattern of settlement which was nucleated and with little or no public access to them. With such exposure one can argue that alien cultures will find it easy to penetrate the cultural fabric of once simple people. Such meddling should not be made without the approbation of the people concerned.

Problems:

11.73 Resettlement of the FCT indigenous settlers who would like to be resettled elsewhere or who in the circumstances of the new developments ought to be resettled elsewhere, is a major problem. The present estimate puts the population of the FCT at 132,816 persons who are contained in 776 settlements. The population of only 16 settlements of that number exceeds 1000 persons. The individual settlements are isolated and their population sizes insignificant to be allowed to exist on their present locations with the provision of necessary social amenities. For instance, the populations of Takpe, Dobi, Iddo Sarki, Hassan and others varied between 5 and 10 persons.

11.74 The policy of the Federal Government indicates that the existing FCT population would be permitted to remain in their present locations with the exception of those populations located within the Nigerian Federal Capital City site or within other needed support areas

in the FCT. Other areas where relocation of the inhabitants would be made include the game reserve area, the reservoir watersheds, the plains area adjacent to the Capital City containing the airport, and the key access points to the Federal Capital Territory (Master Plan for Abuja, 1979, page 228).

11.75 The huge influx of people who have come into the territory in order to secure employment in the construction industries lacked accommodation. This resulted in the development of shanty towns along the major highways, especially at Abaji, Gwagwalada, Suleja, Old Wuse and Gerki. These shanty dwellers constituted another problem to those responsible for resettlement exercises.

11.76 In July, 1982, shanty dwellings were demolished by the Suleja Local Government and many families were rendered homeless. The people's property was bulldozed and left at the mercy of rain and sun (see Figure 11.15). The Suleja Local Government failed to provide an alternative site for the shanty dwellers. There were a lot of criticisms over the destruction that the Secretary of Suleja Local Government had to deny that his Council's action was not politically motivated. Rather it was a way to clear the ground for the planning of Suleja Town as a satellite town to the Federal Capital City Abuja. But after one year from the date of the demolition nothing of the sort of replanning Suleja was at the sight and the affected people were not given alternative places.

11.77 The financial involvement of the resettlement programme is no doubt enormous. The problem has been escalated by the demands of the disturbed inhabitants whose case has already been highly politicised. This has resulted in inflating the numbers of people to be resettled in order to get more money from the Federal Government.

FIGURE 11.15: SHANTY TOWN DEMOLITION. AT ABUJA.



11.14 - The policy of the Federal Government was to demolish the shanty towns that were erected by the people who had been displaced and they were quickly reoccupied by the people who had been displaced and the Government was working with the construction companies.

11.15 - The indignation of the people who were displaced expressed the wish to live and work in the shanty towns and not only to live but to work in the shanty towns and this led to the demolition of the shanty towns. This led to the demolition of the shanty towns and the people who were displaced.

11.16 - Zaria was originally in Plateau State, but now is in the FCT. It was not successfully affected by the

11.78 Resettlement per se is not a simple problem especially where cultural and political aspects of the people have to be considered.

11.79 The policy of the Federal Capital Development Authority was to confine resettlement only to people in villages within the FCC limits, while the rest of the territory outside this priority area was to retain its population and be administered by a newly constituted Federal Capital Territory Administration. Contrary to the views of the decision-makers, the traditional communities would like to stay where they were instead of coming together to benefit from the community social amenities. The people's desire to safeguard their tradition, culture and pattern of settlement should not be taken for granted.

11.80 Wuse was located within the FCC, therefore, it fell within the category of villages to be relocated. The New Wuse was located somewhere along the Suleja - Kaduna Road in Niger State. The old houses that were evacuated by the people were not demolished and they were quickly reoccupied by both the 'stay-put' Wuse villagers and the Ghanaian immigrants - who were working with the construction companies.

11.81 The indigenous Wuse people who remained expressed the wish to live and die in the land that belonged not only to them but to the future generations and their dead ancestors who were buried in the land. This had caused the FCDA double payment to compel the people to move finally.

11.82 Karshi was originally in Plateau State, but now in the FCT. It was not necessarily affected by the

building of the FCC. Therefore, the people had the option to remain in their old settlements in the FCT. But political influence and desire to get compensation motivated about half the original population to move into the Plateau State side and resettle there, thereby evolving two Karshis - the Old Karshi in the old village, and the New Karshi in Plateau State. Similar to those who staged a come-back to Old Wuse, the inhabitants of Old Karshi had the old idea that the land belonged not only to the living and the future generation, but to the dead ancestors. This attachment to the land was compelling enough for the people to remain where they had been culturally settled.

11.83 In the employment sector, the 1980 Survey on Resettlement by the Ad Hoc Presidential Committee was limited by its failure to provide information on the immigrants, or those who are not householders, for instance young school leavers. Because of this shortfall it was not able to provide information on both long and short-time employment problems which actually exist in the FCT.

11.84 The Doxiadis Associates estimate of unemployment of 155 in the Territory in 1982, which was based on the 1963 census, is likely to be underestimated (Doxiadis Associates, 1982, page 434). The construction companies which are involved with the building of the NFCC and the Satellite towns - especially the road networks - lay off their workers during the rainy season. Many of the laid off workers join the army of the unemployed or under-employed who go about in the name of building contractors or suppliers of goods to the FCDA and FCTA or even join the groups of the undesirable elements in the Territory. The FCDA receives at the average of 150 applications every month at least until the ban on employment in the early

part of 1983. A more comprehensive survey is likely to reveal more information than had been given by the Doxiadis Associates Report of 1982.

11.85 However, it is not easy to obtain the number of employees engaged by the Construction Companies. Efforts to secure this information has always been met with rebuff from the Companies. It is inferred that many companies refuse to give such information, probably because firstly, most companies regard any compliance to enquiries of that nature as a way of disclosing their secrets. Secondly, some multi-national companies tend to inflate the numbers or salaries of their expatriate staff in their returns to the Government to enable them to transfer more money to their foreign headquarters. Thirdly, some firms believe that it is a way of disclosing the wages of their local staff which may be below the national average. There may be other reasons which are basically protective in the face of economic market competition.

11.86 Another problem is the adverse effect of urban development on agricultural practice. It involves some of the best agricultural lands. Farmers on the other hand are caused to lose their job and sources of income. Retraining could help the farmers to acquire new techniques but illiteracy might hinder such option. The solution will be to relocate the displaced farmers to areas that do not vary much from what they are used to. What proposals have the Capital plans for the solution of these problems?

12 REGIONAL DEVELOPMENT PLAN

The utility of the knowledge of the potentiality of the Federal Capital Territory requires a plan. In the Regional Plan Doxiadis Associates made recommendations covering population growth, employment, development of agriculture and industry, housing, provision of social amenities and settlement patterns. The vision of future problems and inadequacy of the existing administrative structure led to the suggestion for the creation of a three tiered administrative structure which is thought to be suitable for the whole region.

12.1 Planned growth should not merely aim at accommodating more people and more employment. The movement of people from Lagos or any other part of Nigeria to the FCT is part of the programme to redistribute population or reshape the physical environment of the middle belt of Nigeria. Many houses, factories, schools, hospitals, engineering services, roads, shopping centres and open spaces will be needed to cater for the interests of some three million people in the FCT by the end of the century and improve the conditions of everybody. Similarly, opportunities of organized urban and rural developments, development of water resources and electricity supply have been created. People moving from Lagos or elsewhere in Nigeria will not only be expected to work in the civil and public services but to have an opportunity to choose jobs in the industries and tertiary activities.

12.2 In view of these needs, Doxiadis Associates (Nigeria) Limited, was on June, 1981, called upon by the FCDA to prepare a Regional Development Plan for the Federal Capital Territory (FCT). The plan aims at creating an appropriate background in terms of human and material organization and infrastructure to allow the unimpeded development of the new Capital and to enhance the new structures to the benefit of the City, Region, the neighbouring states and the Nation as a whole (Doxiadis Associates, 1982, page 1). When we are able to list in detail the means of achieving these objectives, there will be room for dispute as to what should be included and what should not and the relative weight to be given to the different items.

12.3 The general distribution of population and socio-economic activities of the FCT form our areas of concern in this chapter.

Population:

12.4 The main components of the future FCT population include:

- (i) Natural growth of the indigenous population by year 1990 will be 170,000 persons.
- (ii) Expected immigration from other parts of Nigeria, especially from Lagos, by 1990 to be 1,347,000 persons.
- (iii) Total growth for the FCC and FCT in 1990 to be 1,517,000.
- (iv) Of this number 486,000 persons will reside in the FCC and 1,031,000 persons will reside in other areas of the FCT (Doxiadis Associates, 1982, p. 449).

In the year 2000 the population of the FCT is estimated to be 2,391,000 persons (551,000 in rural areas and 1,840,000 persons in the urban areas).

12.5 The policy of decentralization of population in the FCT was conceived as the basis from the outset to avoid unnecessary influx of people to the New City, and tentatively the population is arranged between urban and rural areas of the Territory. The official definition of urban population of Nigeria is based on the population size of the various settlements of the country. Thus 'urban' settlements are those which have more than 20,000 inhabitants. Actually there is no one definition for 'urban population' or 'urban areas'. Sometimes the size of the population of an area is used as the simplest criterion; even the size criterion varies from country

to country. At other times, the density of habitation and continuity of the built up area may be used to define an area as 'urban' or 'rural'. Often the form, size and mixture of economic and social activities in an area or settlement are considered as criteria for defining 'urban' or 'rural'. There may be some times when all the variables are considered together.

12.6 Doxiadis Associates differentiated rural from urban populations as follows:

- (i) Those occupied in primary activities (agriculture, animal husbandry, forestry and fishing) and their dependants.
- (ii) Those occupied in secondary and tertiary activities of which the sole purpose is the servicing of the workers in the primary sector, and their families and dependants. Such activities may include small store and shop keeping, repairs of agricultural machinery, small assembly and packaging units for primary products, local scale administrative, educational and health units.
- (iii) The rest of the population involved in the secondary and tertiary activities outside the categories mentioned above are regarded as 'urban'.

Rural Areas:

12.7 About 551,000 persons are expected to settle in the rural areas by 2000. These will be accommodated in 207 rural areas. Efforts have been taken to identify

areas of rich agricultural lands, water resources and possibility for future expansion. The purpose is to enable them to produce as much as possible the materials that can be used in the territory, and moreover such locations will enable them to make necessary frequent trips to the natural resources easier and less time consuming.

12.8 The problem with many rural areas in Nigeria is the utter discrimination in the provision of social amenities, and as a result young people emigrate to urban centres leaving the aged and disabled in the rural areas. Surely such a group of people is unproductive. The argument is that it is not enough to allow people to remain in their traditional settlements; they ought to be provided with social amenities. Not until the administrators realise this and do something for ameliorating the situation, the problem of rural-urban migration will continue.

12.9 The rural settlement policy will have to encourage growth by inducing the supply of agricultural facilities, improved water supply, rural electrification, shopping facilities, and convenient communication facilities in the rural areas. However, some of the demands of rural areas can be met by nearby urban centres, but the place of a rural area or village in the hierarchy of settlement is determined mainly by its relation to the pattern of communications and the possibility of economically providing services for an increased population. Though villages will not be allowed to grow beyond their environmental capacity by admitting too many immigrants, yet if its population reaches the level of having, for example, the services of a doctor, why not provide them with one?

Urban Centres in the FCT:

12.10 Given the projected population for the FCT of 1.8 million in 2000, implies that the population will move to the FCC or alternatively to rural areas in the FCT with less stringent control on development if no urban centres to absorb them are created. Therefore, in order to reduce influx of the inhabitants of the Territory to the FCC, 27 new urban centres have been proposed by Doxiadis Associates (1982).

12.11 The general principles for locating these urban centres include:

- (i) The existing settlements, especially the larger ones, will be the foci of population attraction at the early stages of development. Thus, areas which at present show signs of more intensive activity - either in the form of existing development or commitments - are allocated higher relative weight.
- (ii) Accessibility to and from the new Federal Capital City along both existing and proposed transport networks plays an important role.
 - (a) therefore proximity to the FCC is considered a relative advantage, since areas nearer to it will be naturally faced with higher pressures for urban expansion and demand for land. Such areas are Bwari, Karu and others.
 - (b) The policy of decentralization requires that higher emphasis be placed on areas at greater distances from the FCC which is one way or another destined for substantial population size, so as to have the maximum comprehensive exploitation of the chances offered by the

natural resources and the application of the optimum planning standards throughout the Territory. Thus Abaji, Karshi and Rubochi were chosen as urban centres.

- (iii) Transportation routes whether existing or proposed provide an additional impetus for growth, as do existing large population concentrations, since it is there that the immigrants to the FCT will from the beginning find at least some of the most basic services and facilities they require.
- (iv) Proximity to natural economic resources is another locational factor. It will help to create a sound economic base and employment opportunities for the population of an urban area; proximity to primary resources has a positive effect in the development of agro-industries and plants for forestry products; correspondingly, proximity to construction materials, in addition to the development of extractive activities, is conducive to the creation of burnt-brick factories, asbestos cement plants, and others. Such characteristics enhance the overall development of various urban potential areas.
- (v) The already availability of water and other social amenities are also a relative advantage, especially during the early stages of development, the momentum gained during which may sustain fast growth up to and beyond the year 2000.

12.12 The proposed urban centres are listed in Figure 12.1. The decentralization policy in the FCT should be viewed from the relativeness of the entire Territory of 8000 square kilometres. It seems impossible to consider the full exploitation of the whole Territory by developing only the NFCC. But the questions usually asked are: (a) should the satellite new towns be as many as 277, and (b) should they be developed simultaneously with the NFCC?

12.13 Besides the FCC which itself a new town, IPA Master Plan for Abuja in its Regional Context proposed that Gwagwalada, Dafia and Dangara, which are existing, should be reinforced as potential regional population centres by the improvement and expansion of existing services and facilities, whereas Abaji, Gawu, Izom and Bwari, which already have some type of community facilities, should be allowed to remain (IPA, 1979, page 231). There are also seven development area headquarters which are receiving planning attention and where strategic locations such as Colleges of Technology are made and housing estates are developed for local residents. In Doxiadis Associates' plan, towns like Karshi and Karu are included. Karshi, also a development area headquarters, is a designated new town because of its special location at the border between the Plateau State and the FCT.

12.14 In comparison, Greater London has eight new towns within its metropolitan region located between 32.2 to 64.4 kilometres away from London. Glasgow itself has four new towns within a similar distance, Cumbernauld, East Kilbride, Irvine and Livingston. Livingston belongs to Lothian Region now rather than Strathclyde Region and therefore is attached more to

**FIGURE 12.1: FCT POPULATION OF URBAN AREAS
IN THE YEAR 2000**

Urban Area	Surface		Population		Gross Density	
	Hectares	%	Number	%	Persons per Ha.	%
Gawu	680	1.49	27,800	1.51	40.9	101
Izom	2,470	5.42	117,000	6.36	47.4	117
Gurfata	730	1.60	30,200	1.64	41.4	102
Gwagwalada	3,100	6.81	168,600	9.16	54.4	135
Daban Rafi	1,940	4.26	69,000	3.75	35.6	88
Bwari	1,860	4.09	91,100	4.95	49.0	122
Zuba	250	0.55	-12,000	0.65	48.0	119
Kanu	1,880	4.13	86,100	4.68	45.8	113
Karshi	940	2.06	41,800	2.27	44.5	110
Kiyi	1,500	3.29	61,300	3.33	40.9	101
Kuje	610	1.34	27,600	1.50	45.2	112
Gomani	1,380	3.03	43,200	2.35	31.3	77
Sheda/Kwali	1,690	3.71	61,800	3.36	36.6	91
Ewoge	1,430	3.14	45,300	2.46	31.7	78
Kwaite Sabo	2,030	4.46	67,700	3.68	33.3	82
Abaji	3,260	7.16	157,900	8.58	48.4	120
Gudun Kariya	2,050	4.50	87,000	4.73	42.4	105
Komau	1,100	2.42	38,500	2.09	35.0	87
Yaba	880	1.93	23,700	1.29	26.9	67
Leda	1,350	2.96	44,300	2.41	32.8	81
Waje	2,440	5.36	89,200	4.85	36.6	91
Sabo	1,950	4.28	77,700	4.22	39.8	99
Dangara/Ashara	2,220	4.88	75,400	4.10	34.0	84
Rubochi	1,890	4.15	65,000	3.53	34.4	85
Gwargwada	2,070	4.55	86,800	4.72	41.9	104
Ure	2,700	5.93	104,300	5.67	38.6	96
Zagabutu	1,140	2.50	39,700	2.16	34.8	86
Total	45,540	100.00	1,840,000	100.00	40.4	100

Source: Doxiadis Associates (1982, page 65)
Regional Development Plan for the Federal
Capital Territory 2000.

Edinburgh than Glasgow. All these British new towns were primarily overspill new towns, or served the relocation of populations within their region. Long distance migration was not necessary. It means actually that they were developed after the central cities of London and Glasgow had reached their maximum population levels and were beginning to decline.

12.15 Contrary to the above principle, the New FCC of Nigeria is being developed simultaneously with its satellite new towns. The time scale for the development of the new towns was not considered nor the uncertainty of achieving the population targets was not taken into account. The development of seven new areas by IPA proposal would have all the same been considered fantastic in view of the financial and manpower involvement. But Doxiadis Associates in their latter proposal overstretched the idea by recommending twenty seven new towns, by implication, to be developed at the same time (Doxiadis Associates, 1982, page 62).

12.16 Earlier similar attempts at massive development in developing countries have been criticized. The Indian policy was criticized by Misra (Antoni K. Kuklinski ed., 1972, page 152) for telescoping the progress of centuries into decades by basing the community development programmes on the assumption that complete decentralization, making each village stand on its own feet, would transform the rural society of India. Zygmunt Piore pointed out that the planned settlements intended for self-contained and self-sufficient agricultural settlements in Tanzania were discontinued in 1966 (Kuklinski, 1972, page 176) because they had not regional consideration.

12.17 The "multicity" concept as the author prefers to call Abuja New Towns Programme, or "social cities" concept used by Ebenezer Howard in 1898 (Osborn et al., 1977, page 82) or the "Regional City" by Clarence Stein and his colleagues in Lewis Mumford's introduction to New Towns by Osborn et al. (1977), is not new. Abuja programme is the empirical application of the concepts of these proponents.

12.18 The "Regional City" according to Clarence et al. is a city whose articulated spatial organization, whose social and economic balance would be the rational equivalent of the sprawl and cluster and needless confusion of the existing metropolitan areas and conurbations. In Howard's original proposal of "social cities", he envisaged as the next stage after building of one garden city to demonstrate its practicability, the foundation of a cluster of garden cities separated by green belts but interconnected with the main city with regional transportation networks. In his 1902 edition, he altered his text and substituted a more modest diagram showing two garden cities instead of six in the previous diagram, to be budded off from the first city when it reached its intended maximum population. At the later stages further off-shoots could be added and the cluster thus gradually built up. It is pertinent to note the importance of time scale which should separate the building of the main city and the satellite ones, because it helps to avoid compounding mistakes by simultaneous developments. The main city built needs to be validated by experience before the municipal structure needs to be created.

12.19 The 'multicity idea' is defined as a process of redistribution of a target population of a region or territory among simultaneously planned settlements.

From the outset the settlements or towns are categorised according to functions, and individual settlers have an early choice of where to live and work. Like the 'Regional City' the spatial organization of the new towns are highly articulated through the regional transportation networks. The Abuja programme differed from Howard's concept in the sense that the planning and development of the satellite towns come when the main city was considered to have exceeded its maximum population size. Surely Abuja has ushered in a new era of urban and regional planning; it may be better to watch out for the consequences of the actions. But at the same time it is not too early to ask some critical questions on how to realise the plans in view of the population assumptions and financial involvement in the face of the declining world economy. There is also the question of possible implications if the plans fail.

Population assumptions:

12.20 The question of the British new towns having a nearby supply of population and of a construction work force is an important one. Even with this advantage, the growth and target populations of the British new towns have been vulnerable to changing circumstances and have been much modified both up and down. It was seen for instance that East Kilbride, near Glasgow, a first generation new town, was originally planned for 45,000. Later the target population was changed to 50,000. In 1960 it was further raised to 70,000 after Lord Craigton, Minister of State, visited the town in June, 1960, and said that the target population should be expressed as 70,000 (Osborn et al., 1977, page 391). Still early in 1970 the amended plan showed that the population should rise ultimately by natural growth to about 100,000.

12.21 In the same way Glenrothes was designated in 1951 with a target population of 32,000 based on the anticipation of increase in coal production in Fife, notably the Rothes Colliery. Changes in manpower estimates in the mining industry prompted the revision of the target population to 15,000 with the maximum growth of 18,000, against strong opposition. But with the prospects of the town attracting industries and its readiness to take overspill population from Glasgow, the population target was later raised to 50,000. In view of the closing of the unsuccessful Rothes Colliery announced in 1961, Glenrothes had to depend for its future to a greater extent on this overspill. Still later, the Glasgow - Glenrothes movement virtually ceased, and general industrial development is the New Town's future sole source of growth; yet the target population remains at the higher level (Agwu, 1979, M.Sc. Thesis, page 50-51).

12.22 Conversely, the Stonehouse New Town which would have become the sixth Scottish New Town, was stopped in 1976 after only 96 houses had been completed. This occurred following the West Central Scotland Plan of 1974 and the creation of Strathclyde Regional Council in 1975.

12.23 The Government decision in May 1976 to cancel the Stonehouse project, and the subsequent setting up of mechanism for tackling large scale renewal in the East End of Glasgow was seen as virtually confirming the end of 'overspill' policy and appeared to signal a change of direction in Town Planning with a move towards concentration of public resources on areas and people with the greatest social need.

12.24 Similarly in England, Stevenage, the first designated new town, in 1946, under the 1932 Act, was recommended for expansion to 30,000 persons. In 1955 the population of the new town was raised to 60,000. Again in 1958, Henry Brooke, the Minister of Housing and Local Government, influenced by the thinking then about the population trends and also by the demand for continued decentralization from London, was looking for greater contribution from Stevenage and the other London new towns, recommended the target population for Stevenage to be raised to 80,000 which would allow for a cut-off point for artificial growth and in-migration to be raised to 60,000. In 1964, Sir Keith Joseph, the successor Minister to Brooke, called for reexamination to raise the population of the town to 150,000. However, in 1966 the target population of Stevenage new town settled at 105,000. Newton Aycliffe, another first generation new town, was designated on 19 April, 1947, with a maximum population target of 10,000. In 1957 the population was increased to 20,000 and later in 1960 it was raised to 45,000. Even among the third generation new towns such as Milton Keynes had a planned population of 40,000 in 1967, but in 1982 the population was raised to 103,500. Northampton was designated for 133,000 in 1970, and in 1983 the population was increased to 161,000.

12.25 Compared with the British New Towns' population targets, the population assumptions for the FCT New Towns vary from 12,000 for Zuba to as high as 168,000 for Gwagwalada, as can be seen in Figure 12.1 above. Using population size alone as a criterion for defining an urban centre, it is only Zuba which cannot be classified as an urban centre in the Nigerian context. All other

population targets for the proposed new towns are above 23,000.

12.26 The British New Towns policy introduces critical points in respect of population assumptions in new towns. First, London and Glasgow had already reached their size maxima before exporting their overspill populations to the new towns and the new towns are within the regions of the exporting cities (between 32.2 to 64.4 kilometres). On the contrary, the Nigerian cities (Kaduna, Minna and Ilorin) close enough to the FCT to export overspill populations are still growing. Lagos which is in a position to export some of its overspill population, is about 500 kilometres away and distance has a considerable limitation to migration.

12.27 Second, from the analysis of the British New Towns we noted:

- (i) That the growth and target populations of the British New Towns have been vulnerable to changing circumstances and have been much modified both up and down.
- (ii) Even in Britain where data and forecasting are more reliable than in Nigeria, there have been serious problems in achieving plans.
- (iii) The modification of the British New Towns population targets was generally upwards and that gives the impression that all things being equal the proposals for high population targets for FCT New Towns were a move in the right direction.

- (iv) There is nothing sacred about any number chosen since it can be changed as often as may be necessary by the developing authority.

12.28 Nonetheless, the importance of reliable population data cannot be over emphasized. They are essential if a certain level of confidence in population planning is to be maintained.

Housing:

12.29 The future population of the FCT is projected to be 551,000 in the rural areas and 1,840,000 persons in the urban areas. An average household size of five persons will require all together 478,200 dwelling units to be constructed in the FCT by the year 2000. A point of major importance in establishing housing needs is that there is likely to be inadequate housing supply if the immigration rate is maintained. Given this eventuality, however, it means there will be a major housing and job creation programme in the FCT which will affect the construction sector as well as investment both from the private and public sector. The FCT Regional Plan expects public investment of 10 per cent of the total housing stock and 24 per cent of public contribution as subsidy for the rest. This implies that 66 per cent of the housing will be implemented by the private sector. The first concern is with such high percentage of the housing stock expected of the private sector and with the most optimistic immigration rate expected in the Territory, whether there will be adequate housing for the population by the year 2000? Second, as there will be a choice of residential location for the migrants between, on the one hand, rural areas and urban centres, and on the other hand, among the 27 urban centres except the NFCC, how does the FCDA intend to achieve the policy of decentralization in the Territory?

12.30 A small proportion of public housing in the different urban centres in the FCT cannot induce the expected redistribution of population unless it is complemented by adequate employment opportunities there. Furthermore, the thinking is that a small proportion of public housing in areas where there was little or no adequate housing before is bound to have severe consequences on those client groups who are dependent upon this sector for housing. Even with the private estate development, the rental for housing is likely to be affected by inadequate supply of housing stock. The housing need of the low-income earners will also be affected because estate developers go to such houses that will give them the highest return. Another group that will be affected is the elderly, disabled and those with fragile health, who would need "special housing". If the policy of decentralization is extended beyond the spatial context and relates to social equality, it will be contended that the proposal for housing in the Territory has not gone far enough.

Employment:

12.31 The employment policy assumes that there would be no unemployment in the FCT. The assumption estimated a total of 977,000 labour force for the FCT alone.

12.32 The data was based on logistics derived from cities of several countries assumed to have similar characteristics with Nigeria, that is, large population, oil production and similar geographical setting. Data from Canberra, Washington, U.S.A., Kuala Lumpur, Manila, Venezuela, Indonesia, Abijan and others were compared and from there future labour force was determined for the FCT. But it is necessary to note that these cities or

countries belong to different stages of development and may not be appropriate bases for formulating employment policies for the FCT. Combining the distribution of employment of primary, secondary and tertiary sectors as proposed by IPA and Doxiadis Associates for the Territory, the basic employment structure of the FCT is given in Figure 12.2.

Primary Sector:

12.33 The goal of this sector is the maximum exploitation of all resources with special emphasis on very intensive animal production combined with minimum ecological and sociological disturbances. A total of 575,000 hectares have been designated for the primary production and a total number of 169,000 persons are estimated to be engaged in the primary sector in the year 2000 (Doxiadis Associates, 1982, page 92) as against 27,430 persons in the primary sector in 1980. To solve the food problem (Chapters 3 and 8 above) the Plan proposed:

- (i) Full use of all suitable agricultural areas;
- (ii) Emphasis on cultivation of vegetables and fruits for immediate consumption; and
- (iii) Organization of large areas for intensive animal production.

12.34 As a consequence, 49 zones are identified with a total area of 106,925 hectares for agricultural cultivation; 18 zones are earmarked with an area of 65,790 hectares for animal production; 43 zones with an area of 140,710 hectares as protective areas; 60 zones with a total surface area of 237,380 hectares designated

FIGURE 12.2: FCT 2000: STRUCTURE OF EMPLOYMENT BY THE MAIN SUB-SECTORS OF ECONOMIC ACTIVITY

	FCC	%	REST FCT	%	TOTAL FCT
Primary Sector	-		169,000	17.3	169,000
<u>Secondary Sector</u>	115,200	13.7	324,000	33.2	439,200
Mining and Quarrying	-		7,150	0.7	7,150
Manufacturing	43,700	5.2	161,350	16.5	205,050
Public Utilities	-		14,550	1.5	14,550
Construction	40,500	4.8	140,950	14.5	181,450
Informal Employment	31,000	3.7	-	-	31,000
<u>Tertiary Sector</u>	726,650	86.3	484,000	49.5	1,210,650
Trade, Tourism etc.	83,300	10.5	243,900	25.0	332,200
Transport and Communication	24,000	2.8	41,200	4.2	65,200
Finance, Insurance, etc.	28,900	3.4	31,450	3.2	60,350
Government Employment	154,800	18.4)			
Other Services	100,650	12.0)	167,450	17.1	422,900
Informal Employment	330,000	39.2	-		330,000
Total	841,850	100.0	977,000		1,818,850

Source: Doxiadis Associates, 1982, p. 132.
FCT: Regional Development Plan.

for protective and productive forestry; and 37 zones with an area of 25,170 hectares for forest reserves.

12.35 Poultry farming will be organized in fully industrial form as well as at the family level with the aim to attain full flexibility and meet any level of future demand. Primarily poultry is located at Karu, Karshi and Gudun Kariya. Criteria for the location of poultry in these areas include preference for towns with limited resources and easy access to the capital, noise free environment at some distance from major urban concentrations, airports and extensive industrial establishments. It is cautioned that location of poultry away from water sources or urban areas, as poultry and processing are highly malodorous and strongly polluting activities, is essential.

12.36 The agricultural developments in Bida in Niger State and Lafia in Plateau State are expected to complement the ones in the FCT or vice versa.

12.37 Given the proposals, what opportunities are created in the Territory? Integration of agricultural, industrial and population distribution policies is highly necessary, which means that industries (agro-industries) which can utilize the products of the primary sector, will find it economical to locate in those areas where the raw materials can be produced. Both locations - agricultural and manufacturing industries - can encourage immigration to such border new towns.

Secondary Sector:

12.38 In fulfilment of the industrial development policy goal of the Fourth National Development Plan (Chapter 6 above), the FCT Regional Development Plan objectives include:

- (a) Agro-based and food processing industries.
- (b) Building materials industry.
- (c) Engineering and transport industries.
- (d) Pharmaceutical industry, and
- (e) 'Down-stream' petrochemicals and metallurgical industries.

12.39 The main issue is the general economic development of the Territory. In view of this the planners projected a labour force of 324,000 (i.e. 33.2%) workers for the Territory in the year 2000 who are expected to be absorbed in the manufacturing and construction industries. The purpose of such large labour force in these sectors is to ensure that the needs of the inhabitants of the NFCC and the Satellite New Towns be met, not very much by imports, domestic or foreign, but from the local production sources. The secondary sector includes mining, manufacturing industries and construction.

Mining:

12.40 Data and aerial imagery of the FCT indicated that the deposits of recoverable minerals, for example tin, in the Territory are very limited and not worth an economic exploitation. Those found are ceramic clay, sand, aggregate/crushed stone and demolitic marble.

These minerals can be used as construction materials either directly or in a processed form.

12.41 As a consequence, mining is confined to quarrying of certain types of building materials. 7000 persons are estimated to be employed in the various extractive industries of the Territory. This forecast was based on the study of relevant national and international data according to which it was decided that something less than one per cent of the total employment will concern with quarrying activity.

12.42 To effect the exploitation of the local relevant mineral resources the planners proposed:

- (i) The creation of extractive industries should not be allowed in: residential areas; areas reserved for important agricultural uses or animal husbandry; and areas having touristic and recreational potential.
- (ii) Only quantitatively important deposits should be allowed to be exploited in order to avoid the creation of numerous minor and low productivity sites. Such were seen as detrimental to the quality of the environment.
- (iii) The extractive industries should come under the jurisdiction of a single public authority responsible for the whole of the Territory.

12.43 The second proposal of "exploiting only quantitatively important mineral deposits" is an acceptable approach to mining activity. In respect to proposals (i) and (iii) we contend that; first, complete avoidance

of residential areas, agricultural areas and areas of touristic potential implicitly means sterilising valuable deposits of extractable minerals which is incompatible with the policy objective of "exploiting all relevant mineral resources" (Doxiadis Associates, 1982, page 150). These are the areas where the mining norm requires reclamation of the sites after the depletion of the mineral deposits to avoid economic waste and loss of visual amenity. The third proposal which encourages the "creation of a single public authority responsible for the whole of the territory" negates the already existing body (the Ministry of Mines and Power) in charge of mining operations in Nigeria. The coordination of any new body in the FCT and the Ministry is important in order to avoid costly decisions.

Manufacturing industries:

12.44 (a) It is assumed that the manufacturing industrial sector when created in the FCT will provide much opportunity for employment. Therefore, it is estimated that 161,300 persons would work in the manufacturing industries of the FCT in the year 2000. Jobs would be provided by the proposed agro-based industries and industries dealing with the production of building materials.

(b) To provide the needs of the urban dwellers in the FCC, other 27 urban centres and rural areas is important. The need will induce the production of various types of goods ranging from basic foodstuffs and clothing to the most sophisticated technological products.

(c) The industrialization of the Territory will take into account the relatively underdeveloped condition of the Middle Belt of Nigeria. Hence the creation of

industrial activity in the area will be complemented by the steel products in Ajokuta, the power stations in Kainji and Shiroro Dams and the agricultural projects of Bida and Lafia to enhance the economic development of the FCT.

(d) The strong influence of the seat of the Federal Government of Nigeria will induce on the one hand entrepreneurial drive which will help to develop the FCT, and on the other hand, help to thwart the industrial policy of allowing only light industries in the FCT. This means that heavy industries will vie for location as well as light industries in the Territory and perhaps increase the potential for jobs.

12.45 The need by the Authority to solve unemployment problem likely to arise from increased immigration will create an urge to allow heavy industries to locate.

12.46 Suppose ultimately 161,300 jobs are created in the FCT, it is expected that the plan would help in seeing that maximum return is made from the investments by encouraging training of staff as well as suggesting sources of funds in addition to the modern institution-alised means of financing investments in the country. Conversely, to create jobs of the magnitude of 161,300 jobs in the FCT alone means an enormous investment.

12.47 The Regional Plan suggested the following policy measures to counter the problems:

- (i) Fiscal and financial incentives: Incentives may be positive when they encourage the development of industries in certain areas or negative when they prevent the creation of various undesirable developments, for example, pollution, visual disamenity, etc. Financial incentives help

established industries to take off the ground, especially the small-scale industries. On the other hand, fiscal incentives are in the form of holidays, import duty exemptions and others. They are more appropriately used for large scale industries requiring big investment outlays, especially where foreign investment is heavily involved and where environmental protection is of prime consideration. According to the Fourth Development Plan recommendations the Nigerian Industrial Development Bank is expected to play an important financial role in large industrial investments, whereas for the small-scale industrial activity, the Nigeria Bank for Commerce and Industry is expected to be responsible for providing financial aid. The past performance of these institutions should have indicated how much reliance any proposal will be based on them. Lack of statistics makes it difficult to confirm the common complaint that the services of such banks are discriminative in giving the loans for industrial development.

- (ii) Administrative incentives: These were proposed to encourage private investment and to eliminate the frustration that is caused by various institutional and administrative arrangements by using special measures such as facilitating the release of the necessary licences and permits for private investments. These will help in the success of the industrial plans. In addition to these measures Doxiadis Associates recommend the creation of an "Industrial Development Co-ordination Committee" which will co-ordinate an effective liaison among the different authorities responsible for the development of the FCT with whom the would-be investors have to deal.

- (iii) Infrastructure measures: These are seen as necessary for the creation of industrial activity especially in an area relatively underdeveloped like the FCT. The required infrastructure includes: (a) transportation networks (roads, railways, airports, etc.); (b) electricity, water, telecommunication and sewerage networks; (c) industrial estates; and (d) urban infrastructure.
- (iv) Various studies - these will provide supportive information to industrial investors. The studies could provide information on various opportunities for investment in the FCT, assist in proper evaluation and approval of industrial plans, and guide private investors to the most need and profitable branches of investment.
- (v) Investment in various branches - The complementarity of both private and public sectors in industrial investment should be realised. The involvement of the public sector will take place in areas where private initiative hesitates to get involved alone because of risk considerations and/or high investment outlays. Such investments will be undertaken as much as possible in cooperation with the private sector.

Construction:

12.48 Given the assumptions in the number of urban centres, the housing need and the required transportation and utility infrastructure, construction activities will be a major sector to provide employment opportunities in the FCT up to and beyond the year 2000. Therefore, the

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planners estimated the size of the labour force in the construction sector as 131,300 employees. Figure 12.3 illustrates the distribution among the urban areas (Doxiadis Associates, 1982, p. 103).

12.49 It can be argued that the construction sector provides the greatest opportunity for employment in the FCT. This is only logical since the completion of all necessary basic works ranging from networks to housing and community facilities will have to precede the movement of populations into the satellite new towns. The main emphasis would be on the major infrastructure work both in urban and rural designated areas. This will be followed by vigorous activity on housing schemes while at the same time industrial and commercial and other business activities are all generators of construction activities.

12.50 Even though it is a highly optimistic assumption to expect the implementation of all the 27 satellite new towns proposals to be implemented simultaneously, (Doxiadis Associates, 1982, page 443-452) if the implementation ultimately materialises, it will create unprecedented employment opportunity in the construction sector of the FCT. Surely such optimism is not probable because construction activity is influenced by the performance of the national economy and where the plan does not take this into consideration, it means it will be difficult to implement. In such circumstances, unemployment in the sector is likely and counter-balancing measures such as alternative employment opportunities, and retraining measures to absorb those who will become unemployed due to fluctuations in the construction industries are essential.

12.51 Doxiadis Associates did not explain how they arrived at the 33.2 per cent of the labour force for the secondary sector. The value did not reflect their earlier calculation of 25 - 25.3 per cent for that sector (Doxiadis Associates, 1981, page 447). The high value increases the level of doubt of achieving it in the FCT.

Tertiary Sector:

Commerce, Tourism and Recreation:

12.52 In the commercial context the logistics procedure is used to determine the future anticipated problems of the FCT. The problems are identified as (a) the highly disorganised retail trading systems which constitute a major source of inflation; (b) the lack of adequate storage facilities which is a binding constraint for the effective distribution of commodities and the elimination of unjustified shortages; (c) the large number of small size units which offer inadequate services, contribute to high prices and perpetuate under employment; and (d) inadequate commercialization of agrarian areas.

12.53 In view of the above problems, the basic policy for the FCT is to discourage, to the extent made possible by the Nigerian practices - the development of informal trading activities¹ taking place in residential houses, offices, side-walks and roads (Doxiadis Associates, 1982, page 167). The planners proposed the construction of

1. For a detailed discussion on informal activities, refer to Leys, C., 1975, Underdevelopment in Kenya: the Political Economy of Neo-Colonialism 1964-71, London, Heinemann, page 266.

market stalls and more elaborate shopping centres to facilitate proper siting of commercial activities.

12.54 In a situation where there are competing demands among the NFCC and the 27 satellite new towns vying for scarce resources should the effort be directed towards the construction of elaborate shopping centres in the satellite towns to remove the causes of informal activities in the FCT? The choice can be a misplaced one between the older cities where informal activities is a big urban phenomenon, and a new area where it does not yet exist; it is also a misplacement of priority between the NFCC and the satellite new towns. Investment on shopping complexes usually made by the private sector depends on the anticipated economic gain. The gain depends on the size and buying capacity of the population of the town or city. The argument holds that the city inhabiting the most probable high income workers and diplomatic representatives of their countries is a most attractive location for private investors, at least initially. The choice that inflation has a causal relationship with informal activities is a wide one, because inflation equally exists in countries that have insignificant informal sector. Serious causes of inflation can be traced from the origin and destination of goods to differences in prices other than from informal activities. Solutions must be reached by formalising the various mechanisms by which goods enter the country and the percentage of gain expected on each category of goods. The different rates of profits are responsible for most of the price differentiation. Informal activities by the sizes of people engaged in them are small-scaled, and there is a contention that they require small organised areas to operate.

12.55 In Nigeria commercial activities are dominated by the private sector. The government role in the sector is relatively small and largely complementary to that of the private sector. The government involvement may take the form of

- (a) Construction of wholesale/retail markets for agricultural products.
- (b) Construction of market stalls to serve trading activities in rural areas.
- (c) Construction of basic market facilities for housing small-scale commerce (informal or petty trading) in urban areas.
- (d) The construction of central wholesale and retail markets for agricultural products (fruit, vegetables, meat, fish, etc.) will be mainly the responsibility of the Local Authorities (perhaps Municipal) in each of the 27 urban areas which will have such facilities.

12.56 The role of banking institutions is important in the development of the FCT. This is done by providing credits to traders and the productive sectors of the economy, mainly manufacturing and agriculture. To this end, all major banking institutions will be expected to open branches in the main settlements of the Territory. Remote areas and areas with small populations can be serviced by mobile units of the banks according to successful practices in other countries.

Tourism and Recreation:

12.57 Tourism is defined by the characteristic of being an activity based away from home. This definition distinguishes tourism from such activities that are carried out in the home. The scope may be the use of leisure time or any other. On the other hand, recreation is characterised by an activity aiming at the use of man's leisure time. Any activity that does not aim at a man's use of leisure time is not a recreational activity. The 'place' dimension is not strictly important in the use of leisure time and, therefore, is not considered here since it does not involve development as such.

12.58 Can it be said that the FCT offers the potential for tourism? The FCT is not endowed with such natural elements of major significance as the Yankari Game Reserve, or the Oguta Lake, nor do cultural events on the lines of the Argungu fishing festival. However, with the FCT's role as the Federal Capital of Nigeria, it will develop a significant tourist development potential. This singular role makes it necessary for

- (i) All visitors wishing to get contacts with the various services of the Federal Government will be attracted to Abuja. Other economic activities which will eventually establish their headquarters at Abuja will attract business visitors aiming at contacts with the various economic entities in the FCT.
- (ii) The creation of the NFC will also generate movement of people aiming at other purposes. These movements may include those who are curious to see the New

Capital City develop. Movements of government employees (federal, state, or local) coming to attend seminars, conferences, etc., will be generated towards the FCT. The international visitors may also be attracted to the FCT for the fact that the new capital's peculiarity of developing from scratch, with no previous technical or socio-economic infrastructure. The fact that the FCT will be populated by people from all the states of Nigeria, will generate visits from relatives and friends. Finally, organised programmes, sports, courses or national institutions located at Abuja will become pull factors for people.

12.59 All these visitors, whether Nigerians or foreigners, will require accommodation and outdoor recreational facilities in the FCT. Any policy on tourism in the FCT ought to take into account the existing facilities in the NECC as well as the neighbouring states which are not discussed here.

12.60 In view of the potentiality generated by the creation of the FCT, the planners estimated that a total number of 1.8 million overnights is expected to be realised in the wider area of the FCC from foreign business tourists. The figure is based on the assumptions described above. Out of the total, the majority of overnights will be realised within the FCC. Only a limited number of foreign business tourists in the FCC could be orientated towards hotels situated outside the FCC, that is in the FCT. This category of tourists will give birth to some demand for hotels situated outside the FCC. It is quite usual for business tourists to take the opportunity of being in some place in order to see more

about the life and civilization and the natural setting of the population of the country where he is on a business visit. Weekend days could be spent outside the FCC for a significant part of the business tourists. The figure of 300,000 overnights were based on the experience of the planners in Nigeria in 1981. This figure is further projected to 5,550,000 (3,250,000 for the FCC and 2,300,000 for the FCT) in the year 2000, as illustrated in Figure 12.4. To achieve these figures a "product mix"¹ strategy is proposed.

12.61 The planners expressed optimism that commerce and tourism and recreation would generate in the future a labour force of 216,000 employees, as illustrated in Figure 12.5.

12.62 Having discussed the constraints of achieving the commercial goal in the FCT, we may posit the question from the planning point of view, the efficacy of the employment created by the tourist industry.

12.63 Except the accommodation and food offered, tourism is an industry where new demand can be created from minimum investment.

1. The adjustment of products to meet the requirements of specific markets is called product strategy. The range of products which emerges to appeal to the wider possible market is known as the product mix. Examples of the product mix are a wide range of different categories of accommodation, entertainment and of first class air fares to ITX fares in the case of airlines. The product mix needs continuous appraisal to meet changing demand or markets.

FIGURE 12.4: ESTIMATED BEDNIGHTS BY CATEGORY OF TOURISTS, 2000

	In the FCC	Out of the FCC*	Total
Foreign leisure tourists	55,000	55,000	110,000
Foreign business tourists	1,500,000	300,000	1,800,000
Nigerian tourists from other parts of the country			
- Business tourists	1,000,000	700,000	1,700,000
- Leisure tourists	675,000	675,000	1,350,000
Short holiday tourists			
- from FCC popul.	-	560,000	560,000
- from other FCT urban popul.	20,000	10,000	30,000
Total	3,250,000	2,300,000	5,550,000

* FCT Wider Area including the Rest of FCT.

Source: Doxiadis Associates (1982, page 225)
Regional Development Plan for the
Federal Capital Territory 2000.

FIGURE 12.5: LABOUR FORCE IN THE FCT

FCT: SECTORAL COMPOSITION OF EMPLOYMENT IN THE YEAR 2000

Sector	Employment	
	Number	Per cent
Primary	169,000	17.3
Secondary	324,000	33.2
Mining and quarrying	7,200	0.7
Manufacturing	161,300	16.5
Public utilities	14,600	1.5
Construction	140,900	14.5
Tertiary	484,000	49.5
Trade, tourism, etc.	216,100	22.1
Transport and communications	41,000	4.2
(Government)		
Services*)	226,900	23.2
Total	977,000	100.0

* Including finance, insurance, real estate, personal and business services and other services.

Source: Doxiadis Associates (1982)
Regional Development Plan for the
Federal Capital Territory 2000.

12.64 It is characterised by rapid growth, labour intensive nature of product and limited opportunities for capital substitution in the foreseeable future. These increase the attractiveness and make it a competitive area of investment for both the private and public investors in Nigeria. But it is an industry where new demand can be created from minimum investment. For example, the FCDA Protocol unit has only a tourist bus to take visitors around the FCT. In the absence of the bus, project vehicles are commandeered and any officer can be asked to lead the tour. In fact, no skill is expected of the officer. Another example is that you will be able to find hotels of every description in Suleja since the building of Abuja started in the FCT, but all the same they serve the same purpose of providing services and accommodation for tourists using young and unskilled labour force which has chosen the job as the only alternative one available.

12.65 Tourism has negative attributes to employment. The first is the seasonal nature of much of the employment, particularly that element that concerns holiday tourism. For instance, most of the hotels and accommodation facilities remain almost empty on weekends or during the big feasts, such as Christmas and Easter holidays. Tourism, once a booming industry in Suleja (near FCT) is tending towards decline since the movement to Abuja began in 1982.

12.66 The question stemming from tourism concerns its part-time employment; how does one compare part-time and full-time employment? Are they both of equal value? I would suggest not, although the former may have the special advantage of serving particular sections of the community, such as women who desire part-time employment.

Historically part-time employment is associated with low pay; this is the most important criticism of tourism employment (David J. Egan, 1983, page 133). In a submission to Licensed Residential Wages Council, the Low Pay Unit states that 'it is not just the extent of low pay in the industry which is disturbing. There is also an unmatched depth of low pay (Jordan, 1979, Meagre Rations - Low Pay, Paper No. 29).

12.67 The implication of this situation suggests the fragile nature of basing employment policy on tourism. Nonetheless, the importance of developing tourism by the public sector provides better security for the employees, for they are regarded as public servants, than they would be by the private sector.

Transportation:

12.69 A town which was hardly visited by five vehicles in a day in 1977 when the first group of the FCDA workers moved from Lagos to Suleja, was by 1982 suffocating with traffic congestion. The sight of vehicles in the remote parts of the Territory was a novelty for the villagers and at the least chance they would rush to watch. The Territory was unprepared to cope with the sudden influx of a large construction work force and administrative staff who have cars but normally complain of car parking lots. The problem of this unpreparedness manifested itself in more than one way; but how did it affect people's mobility?

12.70 With road density of 0.02, the FCT was below the national average of 0.11 and slightly lower than those of the adjoining states (Chapter 11). Probably

the density was adequate for the community when only five vehicles per day visited it but would be inadequate when over 1000 vehicles per day started to use road facilities not meant for such a large number in 1982.

12.71 Congestion is a widespread complaint. It means too many people using the highway at the same time, requiring queueing and reduction in speed in order to shorten headway to increase the highway capacity.

12.72 However, most people in the FCT cannot buy their own cars, they will have to depend on the public transportation. The problem is increased when one is working in any of the Development Areas of the FCT either as the Authority's staff or a contractor engaged in the Abuja project. The cost in time and money was great when one has to commute for five to six days in a week and four weeks in a month. In some occasions the poor villagers cannot even pay for the road public transportation and the alternative is to trek to their destinations.

12.73 The serious charge against the auto-highway system is that it is unsafe. Many cases of road accidents are not reported, but for those that are reported, it is only the police who can account for them. With the increase in the construction in the New City and the introduction into the roads of the heavy construction vehicles, there was at least two road accidents per week between 1981 and 1982 involving not less than ten persons each week.

12.74 Finally, air pollution is another unfortunate 'externality' (as economists say) of the auto-highway systems. The combustion process of the internal-combustion engine leaves undesirable by-products -

unburned hydrocarbons, carbon monoxide and oxides of nitrogen, which, in existing concentrations, are annoying, and have marginal (but measurable) ill effects on health. Pollution, according to Bruce-Briggs (Nagel, 1977, ed., p. 326) is the function of emissions per unit volume of air, which is almost directly proportionate to land area. So very low density areas where wealthy people and middle income people live who are entirely reliant on the automobile life suffer little from pollution. It is the few high density areas such as Suleja that have a real problem. That is the cost the poor have to pay for those who pollute their environment through the use of their vehicles.

12.75 Besides the immediate transportation problems in the FCT, by the year 2000 the FCT is expected to grow to over 3 million population. This means a lot of strain to the transportation system. Thus, there is need to improve the transportation and communication networks to match the expected traffic growth. To solve the existing and anticipated traffic problems the planner adopted the National Transportation objectives as a way of developing the Regional Transportation Policy (RTP) for the FCT (Federal Government of Nigeria Fourth National Development Plan, 1981-85, p. 44). These included:

- (i) To provide the highest level of accessibility to various land uses and urban and rural functions. This will be effected by maximization of connectivity and human interaction.
- (ii) To induce low cost transportation by providing for various transportation modes with varying cost levels among which the public can select the one that maximises its utility.

- (iii) To reduce the travel time. The travel time is a very important factor in modal selection as well as in the dispersion of urban activities, and will eventually have a significant impact on the location of various land uses.
- (iv) The regional transportation policy objective should include the reduction of social costs. As it has been noted above, air pollution is a social cost derived from using vehicles driven by combustion engines and noise pollution as it relates to transportation planning is produced by the noise of flying aircraft. Social cost also implies traffic accidents in all types of transportation and is measured in terms of the accident rate observed and the resulting casualties.
- (v) To encourage energy conservation. Though Nigeria is an oil producing country, that cannot be considered enough reason to waste oil. Oil is as important to Nigeria as it is to the rest of the world. Energy conservation can be achieved by encouraging the mass transportation modes as an alternative to private transportation.

12.76 Given the objectives, the planners proposed to increase the FCT road density from 0.02 to 0.086 by proposing the building of more roads. This was found to compare with Lagos, even though Lagos road density is still higher (0.095). This would increase the primary road network to 803.5 kilometres in length. Secondary and tertiary road networks have to be increased to 943.5 kilometres and 1,501.0 kilometres in length respectively. The role of the primary and secondary road networks is considered important and special care should be given to their pavement design.

12.77 In order to provide the public with modal choice, the construction of a railway system is proposed; this would connect the FCT with the Nigerian National Railway system. The techno-economic feasibility study for a standard gauge railway network for Nigeria had earlier recommended this connection. The various connections would amount to 573.0 kilometres of the railway system with standard gauge. It is assumed that the connection would provide greater access to the FC and its wider area from the state capitals, the centres of economic activities, such as seaports and river ports. The expected traffic in 2000 along the Lafia - Minna railway corridor is about 500,000 passengers and 1.3 million ton-kilometre.

12.78 The Abuja International Airport is constrained by the existence of hills in the surrounding area, and in future the noise nuisance produced by flight aircraft would be a problem to residential areas. Its dual function as an airport for both the military operations and civil aviation, and the difficulty for future expansion due to incompatible land use - the military zone South West and East of the airport, present possible conflict. The capacity of the airport was designed to be 5-6 million passengers annually. Doxiadis Associates found the existing airport inadequate and a second airport would be required. This led to a proposal of another airport - the FCT Regional Airport - South-west of Gwagwalada. It will have two parallel runways and capable of handling the expected air passenger and freight traffic beyond 2000 AD.

Transportation Centre:

12.79 The plan proposed a combined transportation system which will employ a combination of all modes and required terminal facilities. In selecting centres the planners considered (a) the existence of more than one mode of transport, (b) necessity of inter and intra-modal connections, (c) centrality to the region, (d) proximity to population concentrations, (e) relation to other economic activities, and (f) proximity to junctions of major transportation corridors. Using these criteria

- (i) Gwagwalada is selected as a regional centre because it will be a railway terminal, container terminal, inter and intra-city public transportation, close to the airport, the primary axes junctions and within a major urban centre.
- (ii) Izom, Karshi, Kuje, Sheda-Kwali, Abaji and Dangara-Ashara are recommended as sub-regional centres because of the combination of railway station, inter and intra-city public transportation, close to junction with primary and secondary axes and with a major urban centre.
- (iii) Gawu, Bwari, Karu, Kuje, Kwaite Sabo, Gudun Kariya, Waje, Gwaragwada and Ure are recommended because they are district centres.

12.80 The development of infrastructure in Nigeria is not centralized. The Federal Government is responsible for all primary roads, leaving the secondary and tertiary roads to the State Government and Local Government respectively. The FCT is in a unique position in the sense that the Constitution places it under the Presidency and it has an implied state status. Therefore, it makes

it difficult when operating in the FCT to determine which powers the President uses whether as the Head of the Federal Government or as an assignee of the administration of the FCT. It is difficult to convey a precise statistical picture of the expenditure for regional purposes. This is complicated with the preferential status the Government assigns to the FCT projects.

Social Services:

12.81 Attraction of 2.3 million people in the FCT meant that the demand for services will change. The change will involve, first, the scale of services; then a much greater variety of services had to be provided; and finally, the peculiar situation of the FCT means that every service has to be supplied from scratch. As one would expect, the building of 27 new towns means provision of adequate social services to all these new towns and the supporting services to the rural areas adjacent to the urban centres. The principal social services are usually associated with the demand for education and health.

Education:

12.82 The demand on educational facilities is only one of the most prominent features of rapid growth. The planning for the student/teacher ratios that are expected to be growing not only from the natural birth rate, but from influx of immigrants from all over the country, is another problem.

12.83 Therefore to meet these problems the planners adopted as the main policy objective the provision of the best quality and quantity of service to all the projected population of the Territory in the year 2000, according to their needs and desires and to the needs of the society and economy of the nation. Within the context of the new national policy on education the planners assumed:

- (i) Emphasis on scientific and technical education oriented to the technical changes and developments in the FCT. It is assumed that sixty per cent of the secondary education graduates will not proceed to the next stage of education, thirty per cent will attend higher technical education and ten per cent will attend university. It is also assumed that immigrant students from other states will increase the enrolment percentage.
- (ii) Teacher training colleges should be part of Higher Technical and University education.
- (iii) Primary education will be completely compulsory for all boys and girls of primary school age.
- (iv) Scholarships must be used as a means for increasing enrolment in schools and curricula that will best serve to meet the practical developmental needs of the Territory.

12.84 These became the policy and objectives of the educational system of the FCT once the Regional Plan has been adopted and approved by the implementation body.¹

1. The educational implementation agency in the Federal Capital Territory is the Federal Capital Territory Administration based at Gwagwalada New Town.

The main issue is that the implementation Authority will have to take into cognisance the limitations of the budget and ensure that overall expenditure is kept within the approved limits. The crucial question is whether the budget can cope with the following proposals?

- (a) The pre-primary education: Large investment is proposed for the FCT in the year 2000 and consequently 1087 nursery schools (839 for urban and 248 for rural) for a total of 65,752 eligible children. This proposal, however, depends on two important factors. First, the amount of immigration available to the rest of the FCT in the year 2000 and, then, the availability of funds to provide facilities and the teaching staff.
- (b) Primary school education: With the tremendous awareness of the advantages of education across the country through the introduction of the Universal Primary Education in 1976, and the anticipation of a high concentration of highly educated and technically trained parents, the primary school enrolment will be expected to be very high. At the rate of one primary school for every 2,500 to 3,500 urban population and 1200 to 1500 for every rural population, 736 primary schools and 212 primary schools for urban and rural areas respectively are proposed. These will result in 948 primary schools in the FCT in the year 2000. Given the situation that there were few schools or none at all, it means the provision of educational infrastructure will start from scratch.
- (c) Secondary education: The reorganized educational system provides two phases at this level. However, both phases aim at, first, preparing and selecting students for the next stage of the education system,

and, second, preparing those who will not proceed to the next stage of education for employment and usual living with the society. The Junior Secondary Schools will be attended by children between the ages of 12 and 14 years old. This group forms 6.7 per cent of the population pyramid. The phase of education will prepare students who will not proceed to the next stage for employment (general or technical orientation) and also select students for the next stage (technical or general). A school enrolment of 80 per cent of the corresponding age group is assumed for this stage. The Senior Secondary Schools will be attended by 15 to 17 year old. This forms approximately 5.9 per cent of the total population. This phase of education is aimed at preparing students who will not proceed to the next stage for employment, and also select students for the next stage (Higher Technical Education or University). A school enrolment of 50 per cent is estimated for this age group. Using the standard of 270 students (180 students for junior schools and 90 for Senior Secondary Schools) per facility, 709 school units and 56 units are proposed for junior and senior grades respectively.

- (d) Higher Technical Education and Universities. The plan proposed 28 Higher Technical Institutions for the estimated number of students of 20,000 for the FCT and one University at Wuje to complement the Abuja University by the year 2000. It is expected that at this level provision of educational facilities should relate to what is available in the country instead of limiting it to the FCT.

12.85 Figure 12.6 illustrates the FCT educational facility needs between 1981 and 2000, according to Planning Areas.¹ The figure provides information on the total number of students according to planning areas, the number of educational facilities and the amount of land required to implement the educational proposals in each planning area.

12.86 In spite of adequate provisions for the educational facilities proposed, there are still some basic problems. First, the plan did not make any proposal on the staff requirements of these schools. Are there enough teachers with technical knowledge to provide the necessary education? Any lack of quality teachers can form a constraint to the achievement of the plan. Furthermore, the cost of education is assessed not only on the provision of facilities but also on the wages and salaries of the staff that would provide the education. Secondly, there is an absence of the provision of educational facilities for profoundly handicapped children and residential and accommodation facilities for physically handicapped pupils at secondary school stage.² This group of people is still part of the society and would require fair treatment.

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1. Planning Areas are delineated units based on their homogeneity, continuity of space and anticipated movement of people and goods in the FCT. They are five in number.
 2. There are, of course, proposals for the provision of homes for dependent children, the aged and physically and mentally handicapped (Doxiadis Associates, 1982, page 352).

FIGURE 12.6: FCT: NEEDS IN PLANNING AREA-SCALE EDUCATIONAL FACILITIES 1981-2000

PLANNING AREAS	PRE-PRIMARY			PRIMARY			SECONDARY						HIGHPP TECHNICAL		
	Number of Students	Number of Units	Ha	Number of Students	Number of Units	Hectares	Number of Students		Number of Units			Hectares	Number of Students	Number of Units	Hectares
							Junior	Senior	Fixed	Junior	Senior				
IZOM - Local Scale - P.A. Scale - Total	6,820 - 6,820	113 - 113	10.10 - 10.10	35,719 - 35,719	99 - 99	107.1 - 107.1	13,395 - 13,395	7,194 - 7,194	72 - 72	- - -	8 - 8	72.0 - 72.0	2,158 - 2,158	3 - 3	6.5 - 6.5
GWAGWALADA - Local Scale - P.A. Scale - Total	14,561 - 14,561	241 - 241	21.70 - 21.70	76,240 - 76,240	210 - 210	223.7 - 223.7	28,589 - 28,589	15,354 - 15,354	157 - 157	- - -	13 - 13	154.1 - 154.1	4,606 - 4,606	6 - 6	13.8 - 13.8
ABUJI - Local Scale - P.A. Scale - Total	19,672 - 19,672	325 - 325	29.46 - 29.46	103,012 - 103,012	263.5 - 263.5	308.9 - 308.9	38,630 - 38,630	20,743 - 20,743	212.5 - 212.5	- - -	18 - 18	207.8 - 207.8	6,224 - 6,224	9 - 9	18.7 - 18.7
WAJE - Local Scale - P.A. Scale - Total	12,792 - 12,792	212 - 212	19.10 - 19.10	66,981 - 66,981	185 - 185	200.7 - 200.7	25,119 - 25,119	13,490 - 13,490	138 - 138	- - -	9 - 9	135.1 - 135.1	4,047 - 4,047	5 - 5	12.1 - 12.1
ABUJA - Local Scale - P.A. Scale - Total	11,907 - 11,907	196 - 196	17.87 - 17.87	62,350 - 62,350	170.5 - 170.5	182.0 - 182.0	23,380 - 23,380	12,555 - 12,555	129.5 - 129.5	- - -	8 - 8	125.6 - 125.6	3,765 - 3,765	5 - 5	11.3 - 11.3
TOTAL - Local Scale - P.A. Scale - Total	65,752 - 65,752	1,087 - 1,087	98.23 - 98.23	344,302 - 344,302	943 - 943	1,027.4 - 1,027.4	129,113 - 129,113	69,336 - 69,336	709 - 709	- - -	56 - 56	694.6 - 694.6	20,800 - 20,800	28 - 28	62.4 - 62.4

Source: Doxiadis Associates (1982, page 322). Regional Development Plan for the Federal Capital Territory 2000.

12.87 It is necessary to ask why is this reorganization in education important for the FCT? It may sound naive to ask this question. After all, it has become the accepted educational system for Nigeria. The basis of the question is that we may replace one problem with other problems perhaps of more magnitude. Suppose the objectives are (a) to prolong the period pupils stay in the school system in order to reduce unemployment of school leavers; and (b) to enable the graduates of school system employable. Given the assumptions that 20 per cent of the pupils graduating from Junior Secondary School stage will not continue to the next stage, and 50 per cent of the graduates of the Senior Secondary School stage will not continue to the Higher Technical College or University, implies that they will be pushed into the labour market. By implication the system will have to provide employment opportunities for 70 per cent at each stage, except, of course, the initial stage when the number will be at 20 per cent, excluding graduates from Higher Technical Colleges and Universities. There is doubt how much skill in industry and commerce school leavers can acquire without practical experience. Employers will be in the position to determine this. The basis of the argument is that we may find out at last that the system has not only produced people who are "specific job" conscious but who will remain unemployed for failing to secure the appropriate job for which they have trained. What we consider very important at this stage of national development is to create enough job opportunities which can solve the problem of unemployment.

Health:

12.88 Similar to the demand for education in the FCT, public health delivery is practically to be initiated in the Territory. Thus, health policies should lead to the improvement of health standards of the population of the FCT through

- (i) the provision of a healthy environment in cities and villages;
- (ii) the proper nutrition of the population;
- (iii) the education in personal hygiene;
- (iv) the intensive training of medical personnel, expansion of institutions for training medical assistants and nurses, and increase of scholarships for medical studies; and
- (v) the provision of the proper preventative and curative facilities (Doxiadis Associates, 1982, p. 335).

12.89 The estimate of the future needs of health installations is based, firstly, on the ratio of one hospital bed to a number of population, and, secondly, on an adequate space for each bed per patient. Internationally the standard is about one hospital bed for 90 - 110 persons. Instead the planners proposed one hospital bed for 200 persons, and the plot area per bed is assumed 50 square metres, because of the limited means.

12.90 With these standards the following proposals for the distribution of hospitals among the planning areas were made:

- (i) Izom P.A. : One hospital in Izom serving the whole planning area, and the capacity will be 1,100 beds.

(ii) Gwagwalada P.A. : The total estimated number of beds is distributed into three hospitals:

- one in Gomani of 500 beds capacity, as it is far away from all other major developments of FCT and will be an important agricultural service centre.
- two in Gwagwalada or one in Gwagwalada (1,300 beds) and the other in Sheda (500 beds).

(iii) Abaji P.A. : The total number of beds is distributed into three hospitals:

- one central general and specialised hospital of 1,300 beds capacity in Abaji to serve Yaba and Rubochi as well as the entire Abaji Planning Area.
- one general hospital of 1,100 beds capacity located in Ashara/Dangara to serve the Ashara/Dangara wider area.
- one general hospital of 1,200 beds in Ure to serve the Ure wider area.

(iv) Waje P.A. : The total number of beds is distributed into two hospitals:

- one of 500 beds capacity in Kumau, because of its centrality to serve a number of agricultural population as well as Gudun Kariya area.
- one central (capacity 1000 beds) in Waje which in connection with the Regional Training Hospital (capacity 1,500 beds) will not only serve the Waje Planning Area, but is also planned as the major central hospital of the FCT.

- (v) Abuja P.A. : The total number of beds is distributed into three hospitals:
- one of 1000 beds capacity in Abuja, additional to the established one by the Master Plan for Abuja to serve Karu and Karshi areas.
 - one in Baban Rafi and one in Bwari (capacity 500 beds each) to serve their own areas.

12.91 The following health clinics and health centres are also proposed:

- (a) Health Clinic: one unit with 2-4 beds to serve 2000 inhabitants.
- (b) Health Centre: one unit with 14 beds, to serve about 10,000 inhabitants.
- (c) Comprehensive Health Centre: one unit with 90 beds, to serve about 50,000 inhabitants.

The locations of these health installations are shown in Figure 12.7.

12.92 Like the education plan, the planners had no proposal for the provision of personnel - doctors, nurses, paramedical personnel, and others. On what should the comprehensive basic health delivery care depend; on the provision of facilities or the personnel to work in hospitals? Experience from other countries has shown that medical care can be delivered to a patient anywhere other than in formalised hospitals. Doctors have been known to work even in houses formally designed for residential accommodation. The Fourth National Development Plan was clear in this when it stated that the obvious bottlenecks in achieving the

FIGURE 12.7: FCT: NEEDS IN PLANNING AREA - SCALE HEALTH FACILITIES 1981-2000

PLANNING AREAS	PRIMARY HEALTH FACILITIES						HOSPITALS			
	HEALTH CLINICS		HEALTH CENTERS		COMPR. HEALTH CENTERS		No. of Beds	No. of Units	Hectares (Plot Area)	
	No. of Units	Ha. Built-up Areas	No. of Units	Ha. Built-up Areas	No. of units	Ha. Built-up Areas				
IZOM	- Local Scale	123	9.8	24	5.9	5	3.0	-	-	-
	- P.A. Scale	-	-	-	-	-	-	1100	1	22.0
	- Total	123	9.8	24	5.9	5	3.0	1100	1	22.0
GWAGWALADA	- Local Scale	264	21.1	52	13.0	10	6.0	-	-	-
	- P.A. Scale	-	-	-	-	-	-	2300	3	46.0
	- Total	264	21.1	52	13.0	10	6.0	2300	3	46.0
ABAJI	- Local Scale	355	28.3	68	16.9	15	9.0	-	-	-
	- P.A. Scale	-	-	-	-	-	-	3600	3	72.0
	- Total	355	28.3	68	16.9	15	9.0	3600	3	72.0
WAJE	- Local Scale	230	18.2	45	11.2	8	4.8	-	-	-
	- P.A. Scale	-	-	-	-	-	-	1500	2	30.0
	- Total	230	18.2	45	11.2	8	4.8	1500	2	30.0
ABUJA	- Local Scale	215	17.3	42	10.9	9	5.4	-	-	-
	- P.A. Scale	-	-	-	-	-	-	2000	3	40.0
	- Total	215	17.3	42	10.9	9	5.4	2000	3	40.0
TOTAL	- Local Scale	1187	94.7	231	57.9	47	28.2	-	-	-
	- P.A. Scale	-	-	-	-	-	-	10.500	12	210.0
	- Total	1187	94.7	231	57.9	47	28.2	10.500	12	210.0

Source: Doxiadis Associates (1982) Regional Development Plan for the FCT 2000.

goals of the Basic Health Service Scheme include inadequacy of personnel due to the time lag in developing the manpower....." (FRN, 1981-85, page 68).

Finally, the plan had no proposal for other aspects of Basic Health Service Scheme. One would have expected proposals on family planning and environmental planning and others. With emphasis in the country on balancing the preventive and curative health care, such aspects as environmental and family planning need to be considered too.

12.93 The major constraint in the provision of health care in Nigeria is limited funding. The existing facilities have constant problems of shortage of drugs, equipment and personnel, and the government effort has not removed these problems. The contention here is to integrate the private sector with the public sector with some defined conduct of operation. Applications from the private individuals for planning permission ought to be considered to lessen the Government burden of providing these services in the FCT.

Cost:

12.94 No comprehensive estimate about the cost of implementing the various proposals in the FCT has been made. Previous estimates have been based on slim information. Nonetheless, the principles used to formulate some of the proposals in the Regional Development Plan are described below.

12.95 Using the 1981 prices, it is estimated that between 1981 and 2000 it would cost the public sector N3770.10 million (£3204.59 million) on housing; N8,241.98 million (£7005.68 million) on infrastructure

of the settlements; N1,702.82 million (E1447.40 million) on education; N1,485.54 million (E1262.71 million) on health delivery care; and N253.69 million (E215.64 million) on social welfare. The public sector also is expected to invest within the same period on the primary sector (mostly in Agriculture) N5253.0 million (E4465.05 million); N46.03 million (E39.13 million) in mining; and N1,027.39 million (E873.28 million) in manufacturing industries. The cost of transportation is projected to N3,233.68 million (E2748.63 million).

12.96 In contrast to the above approach, the planners in deciding which of the villages would be transformed into new towns, used as their criteria population size, existing facilities, accessibility and proximity to natural economic resources instead of the cost/benefit analysis of developing these settlements. Furthermore, the contribution in terms of size of labour force contributable by each subsector of the economy becomes the only criterion for deciding on what aspect of the economy emphasis should be placed. The use of labour force one can argue undermines the contribution of improved technology to reducing sizes of labour force while at the same time increasing output.

12.97 Similarly, the Regional Development Plan did not determine the effect of labour cost on the cost of projects. It is our belief that if the cost of hiring the services of doctors, nurses and paramedical personnel and purchasing drugs, the cost of providing a comprehensive Basic Health Service Programme (BHSP) would have increased tremendously. Or if the costs of hiring teachers and purchasing adequate school equipment are added, there would have been a substantive increase in the cost of education.

12.98 The Federal Government of Nigeria's ownership of land (Land Use Decree in Chapter 9 above) has not eliminated the problem of compensation on the development on land. In most cases cost of compensation can withhold progress on development projects. It can be argued that compensation or land costs do not call directly on the nation's resources; they are transfer payments. Nevertheless, they must appear in the accounts of client cost, although they call on national resources only to the extent that capital invested in the land will need to be replaced. Examples are farm buildings or some economic trees which would be lost to development. The consequences of these analyses will help to determine the level of optimism of the planner's proposals.

12.99 It is difficult to draw conclusions when there are reasons to believe the existence of inaccuracies in the estimated costs. However, judging from the superficial information, the cost of infrastructure of the settlements and agriculture show the greatest difference. Infrastructure costs per se relate to the number of the new towns to be built and this shows the most expensive solution to be considered by the FCDA, especially when the cost of infrastructure in the FCC has not been taken into account.

12.100 Important questions one would like to ask include - what is the use of these cost estimates? Do they really influence decision-making? While we cannot prejudge the response of the Authority, it is necessary to contend that if these estimates are not taken into account when making decisions, it may imply one of two things - they do not reflect the actual situation or the decision-makers do not realise their importance that they are meant to guide their expenditures.

Administration (Government and Services):

12.101 The FCDA was initially conceived to be adequate for handling all the problems for the development of the FCC and the preparation of a Master Plan for the Capital City and the land use with respect to town and country planning within the rest of the FCT.

12.102 However, unfolding realities and especially the change of the initial relocation policy now being confined to the FCC limits, created the need of administration for the population which was outside the priority area. Because of this administrative vacuum the Ministry of the Federal Capital Territory responsible for the overall policy and the Federal Capital Territory Administration were created to fill this gap.

12.103 The FCTA with its headquarters at Gwagwalada is delegated with the responsibility of providing for education, agriculture, administration, health, works and finance to the rest of the Territory.

12.104 Arising from this arrangement is the problem of boundaries between the FCC and the rest of the FCT. The second problem is where there existed two to three bodies without defined role boundaries. It did not only duplicate functions but it created conflict and made control of development in the FCT nearly impossible.

12.105 In view of these problems a Committee was set up to review the existing administrative structure and suggest changes that will ensure the dynamic changes that are taking place in the Territory. Secondly, the Committee was required to delineate the administrative boundaries to match whatever administrative structure

that is suggested. The Committee's proposed administrative structure for the Federal Capital Territory and the Federal Capital City is illustrated in Figure 12.8.

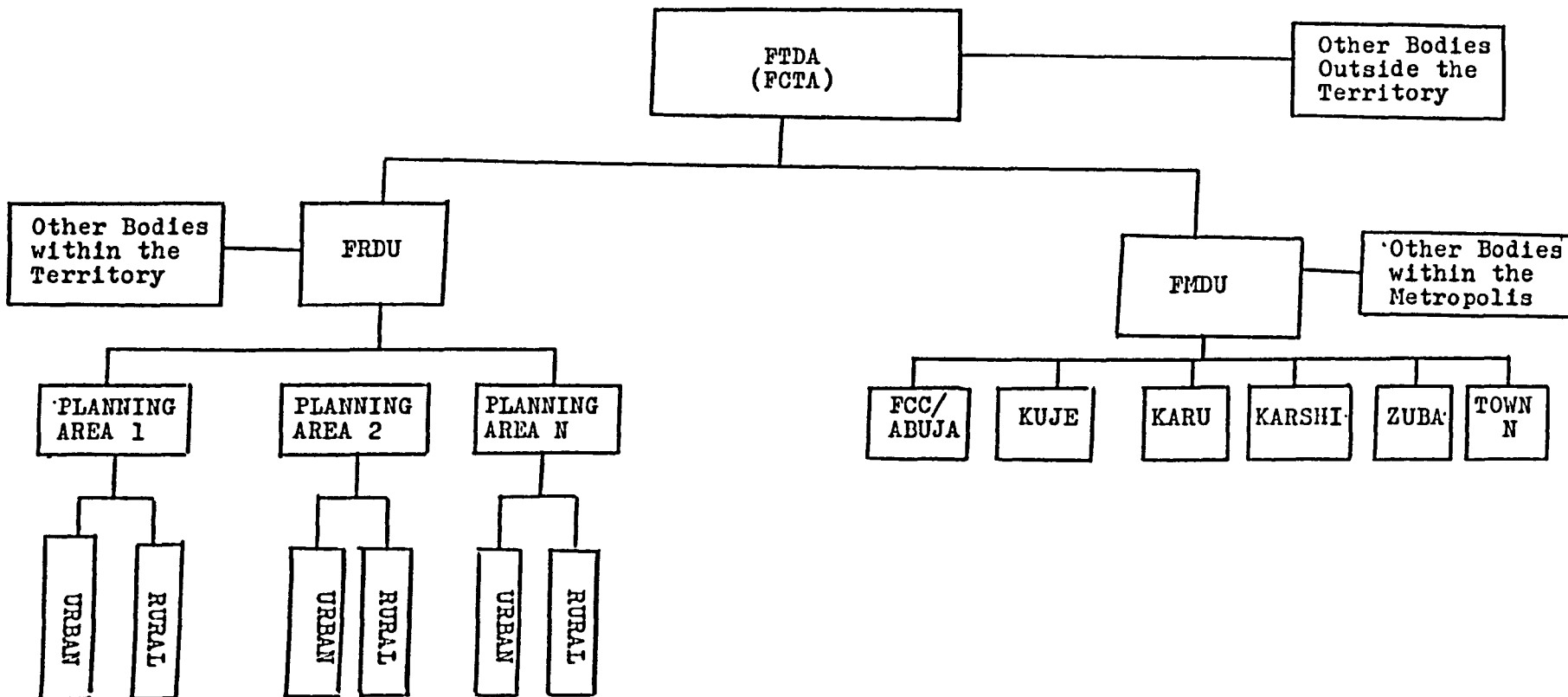
Definition of Area Boundaries:

12.106 The Federal Territory Development Administration, FTDA, or Federal Capital Territory Administration, FCTA, should be the highest authority in the Territory. In order to perform its functions, the FTDA/FCTA must have political power as well as being equipped with technical organization and manpower. Its power will encompass the whole territory as defined by the Decree No. 6 of 1976 and the Enactment Decree No. 25, September, 1978.

12.107 The Federal Metropolitan Development Unit: The proposed territorial jurisdiction of FMDU should incorporate all lands, uses and proposed commitments directly related to the urban functioning and to the role of the Capital. Such areas contain the sites for the water works, sewage treatment plants, etc. as well as the FCC airport and government reserve sites. The second set of areas which are directly related to the capital and its future development consist of the settlements which surround the Capital, namely Karu, Karshi, Kuje and Zuba. These together with FCC form the metropolis.

12.108 The important thing to note here is that it was the wish of the committee that a community should be transferred either to the metropolitan complex or to the region as a whole to avoid overlap between the two territorial units. The use of road networks to establish the edges of a territorial unit is likely to make for rigid boundaries. This was abhorred.

FIGURE 12.8: PROPOSED ADMINISTRATIVE STRUCTURE OF THE FEDERAL CAPITAL TERRITORY



12.109 The Federal Regional Development Unit (FRDU) contains the area specified by the Decree No. 6 of 1976 as the Federal Capital Territory, excluding the area of the jurisdiction of the FMDU as defined above.

The Planning Areas:

12.110 The delineation of planning areas boundaries is based on homogeneity, continuity of space, anticipated movements of people and goods, systems of urban-rural settlements, balancing development according to proposed land uses, transportation networks and distribution of population and activities. To some extent the boundaries of existing Development Areas are considered. Each planning area is subdivided into urban and rural units. However, this latter subdivision is mostly on technical grounds - that is, assigning different staff to different areas of responsibility.

12.111 There are five such planning areas in the Federal Capital Territory:

- (i) Izom Planning Area consists of Izom, Gawu and Gurtata.
- (ii) Gwagwalada Planning Area consists of Gwagwalada, Gomani, Sheda, and Kiyi.
- (iii) Abaji Planning Area consists of Abaji, Fwoge, Kwaite Sabo, Yaba, Ashara-Dangara, Rubochi, Gwargwada and Zagabutu.
- (iv) Waji Planning Area consists of Waji, Sabo, Kumau and Gudun-Kariya.

- (v) Abuja Planning Area includes Abuja NFCC, Karu, Karshi, Kuje, Zuba, Bwari and Baban Rafi.

Figure 12.9 illustrates the locations of the planning areas in the FCT.

Proposed new administrative structure:

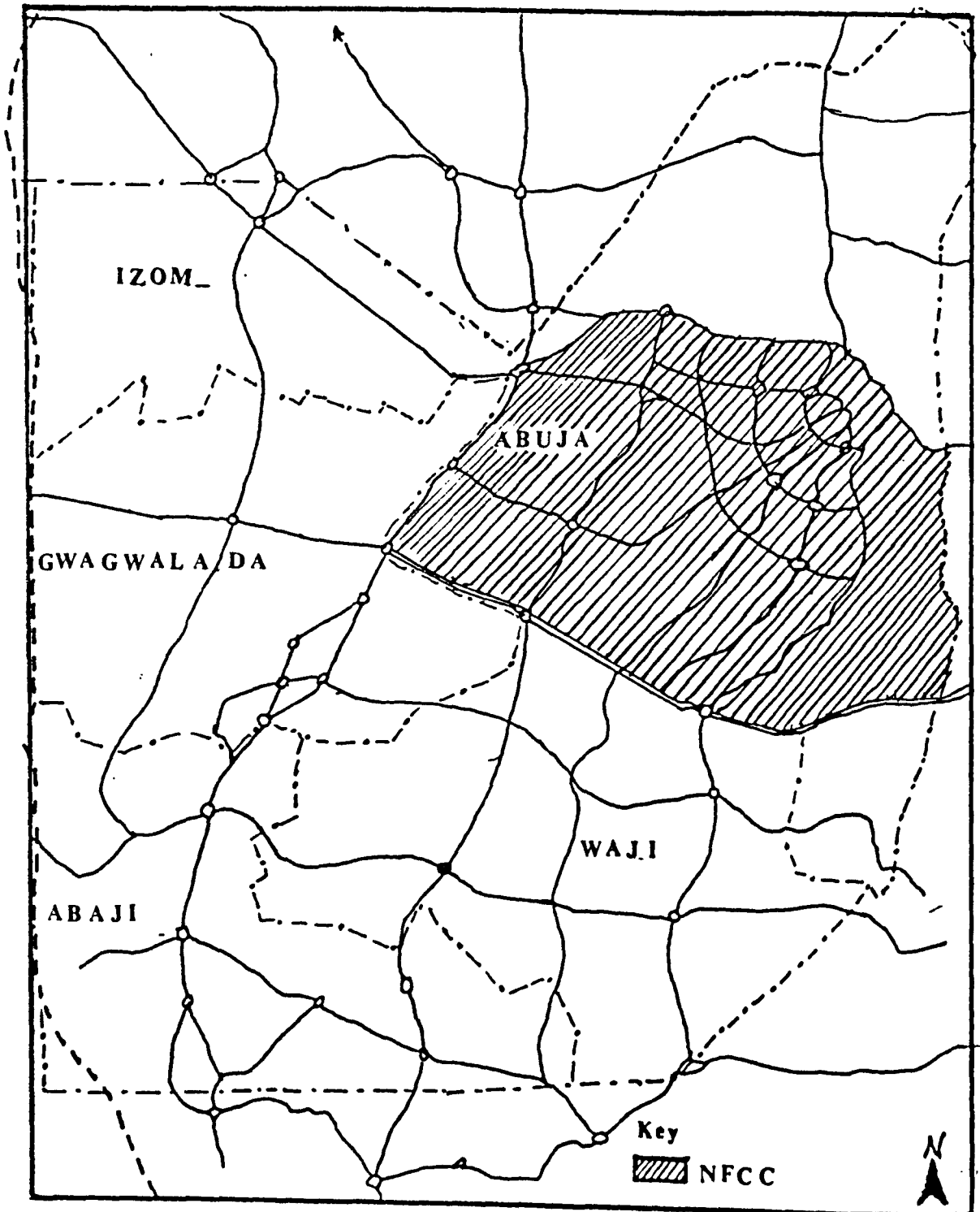
12.112 The FTDA is only the first order administrative unit proposed for the FCT. The two second order units are of the same calibre and are directly related to the FTDA (vertical relationship). Interrelationships between themselves are only indirect through the FTDU (lateral relationship). The next order level consists of the local areas or units from where planning proposals are drawn by the second order units.

12.113 Other network of relationships exists at two levels: at the level of the FTDA or FCTA and at the metropolis and regional level.

12.114 At the FTDA level it will be a recognition of the joint planning coordination requirements proposed by the Capital City Master Plan (IPA, 1979) between the Federal Capital Territory and the adjoining states. This type of relationship is vital especially with the areas very near to the FCC, areas that provide access to the territory and Suleja for its proximity to as well as being the first operational base for the FCC.

12.115 Within the territory the lateral links between the metropolitan complex and the region are very vital. Also there should be varied linkages between each territorial unit (metropolis or regional) and other bodies (public or private) that would like to locate in

Figure 12.9 F.C.T. PLANNING AREAS



it. These will help to "roll in" proposals from other development units of the economy during the preparation of plans.

12.116 The vertical relationships are organised to move up and down between the next higher order authority and the next lower order authority. These linkages are enhanced through the submission of planning proposals to the higher authority by the lower order authority and approval of planning proposals by the former. These relationships are necessary to avoid duplication and unnecessary waste of resources.

The Federal Territory Development Administration (FTDA):

12.117 Theoretically, the FTDA is the only decision-making body, receiving input in the form of suggestions and information from the second order units. In practice, however, the FTDA may delegate some decision-making authority to the other two units, especially in respect to matters specifically and clearly concerning their areas of jurisdiction. This is considered necessary for avoiding bureaucratic constraints or bottlenecks to the proper functioning of the proposed system.

12.118 In this sense, the FRDU and FMDU may draw detailed plans and programmes for development of their respective areas, which they will submit for scrutiny and approval to the FTDA. In their approved form, the following plans and programmes may be implemented by the FTDA.

- (i) Projects that transcend the boundaries of the two areas either in terms of their physical extent, for example roads, large scale irrigation, drainage

schemes and so on, or of their impact, for instance educational and health establishments of regional significance, airports and regional markets.

- (ii) Projects implemented in the Territory by Ministries and other agencies of national scope, for example, agricultural pilot schemes, electricity networks, telephone connections, pipelines and so on in collaboration with these ministries and agencies.
- (iii) The FTDA undertakes the liaison between various units (intra-Territory) as well as inter-State, such as joint planning matters.

The Federal Metropolitan Development Unit (FMDU) and Federal Regional Development Unit (FRDU):

12.119 The metropolitan complex consists of the FCC, Karu, Karshi, Kuje and Zuba. These branches of municipality will be administered by the FMDU under the supervision of FTDA/FCTA. This is justified because of the proximity of these new towns to the city. For the purposes of decentralization and proper recognition, understanding and solution of everyday problems, it is proposed that each of these five units be allocated a Municipality Branch, thus creating the following:

- Municipality Branch of the FCC
- Municipality Branch of Karu
- Municipality Branch of Karshi
- Municipality Branch of Kuje
- Municipality Branch of Zuba

Each of the branches may be staffed by some of the prominent personalities of their respective localities, augmented by newly recruited technocrats - administrative,

financial, technical, etc. - and blue-collar workers - machine operators, technicians etc. -; they must also be equipped with the proper machinery and equipment (garbage collector, trucks, incinerators, tractors, bulldozers and so on. For the Municipality Branch of the FCC, its administrators will be drawn from the city people.

12.120 Obviously, proper staffing and equipment of the subunits of the municipality will require time and effort, given the scarcity of relevant resources, but during the second phase of the implementation the day to day administration of the municipality branches will be directed from the City. The first phase is the transition stage from the participatory role of the FTDA in the FMDU to supervisory role on the latter. Thus the following strategy is proposed:

- (i) First priority should be given to the proper staffing and equipping of the FMDU following the organization of the FTDA/FCTA.
- (ii) Until the municipality branches become capable of performing their functions, these functions will be performed by the FMDU (and at the early stages by the FTDA/FCTA).
- (iii) The municipality branches will be under the direct supervision of the FMDU, which, however, may delegate certain responsibilities to them for the uninterrupted performance of their duty.
- (iv) The municipality branches must make full utilization of local human resources and expertise in order
 - (a) to effect smooth transition from the traditional institutional roles in the villages to modern neighbourhood roles in new towns,

- (b) to be acceptable to the people, the affairs of whom they administer,
- (c) to become a source of employment in the area.

12.121 In the case of the Federal Regional Development Unit (FRDU) in the FCT, all the planning areas and lower order units will be under the supervision of the FRDU. At the third-order level, it is envisaged that the Federal Capital Territory (excluding the Metropolitan Complex) will be subdivided into "Planning Areas" as illustrated in the figure above.

12.122 An important element which was considered in the definition of planning areas is in the present division of the territory into Development Areas. This does not mean that each Development Area constituted a planning area. The population of some Development Areas is too small or too large to constitute a planning area. Therefore, four are proposed, excluding the metropolis, instead of seven which was the number of the Development Areas.

12.123 The problem one may anticipate during the transition stage is the local politics on which the Development Area Headquarters so merged would become the Headquarters of the new planning area.

12.124 Each of the planning areas contains both urban and rural areas. Each type of area has distinct requirements regarding its administrative structure. These differences are expressed in terms of numbers and qualifications of personnel, numbers and types of machinery and equipment, special types of projects to be implemented and so on. Thus rural areas require agricultural extension services, agricultural experts, planting and

harvesting machinery, irrigation projects, etc. Urban areas are expected to pay much more attention in traffic control, residential densities and development control, organization of open spaces, markets, and "central business districts", and thus have needs for planners, architects, engineers and so on more than rural areas. In some of their roles, however, both rural and urban areas have similar needs of personnel and equipment, thus town planning as well as street cleaning, garbage collection, supply of portable water, drainage facilities and others are equally important to both areas.

12.125 It is necessary to stress that the distinction between the "urban" and "rural" portions of planning areas is seen from the context of staffing and equipment. Decision-making and supervision should be exercised directly by the Planning Area Administrative Unit (PAAU) within the sphere of jurisdiction allocated to it by the FRDU. Even on the technical sphere, there should be flexibility between the two areas - urban and rural. Thus officers for urban areas can be detailed to help in rural programmes if need arises. Therefore, there should be coordination of activities and staff transfer schemes.

12.126 Finally, maximum utilization of existing resources is advocated. The existing infrastructure of the seven Development Areas will provide the nucleus of any future administrative organization. Valuable human resources drawn especially from local councils and the local chiefs who have both a thorough knowledge of local conditions and have intimate relationship with the local population will be used. This will not only make for the adoption of existing institutional elements but will help to avoid some of the frictions usually experienced from the introduction of new system of administration.

13 THE MASTER PLAN FOR THE CAPITAL

The causes which led the Federal Government of Nigeria (FGN) to decide on the relocation of the national capital to Abuja have been classified into remote and immediate causes. The Federal Capital Development Authority, acting on behalf of the FGN, commissioned the International Planning Associates to identify the site as well as to produce a Master Plan for the New Capital. The Master Plan proposals covered both the physical and socio-economic aspects in a broad brush setting leaving the more detailed design to the District and Action Area plans.

13.1 Only a few of us had ever asked how Abuja became the designated capital city of Nigeria. The more common question is why was the capital shifted to Abuja?

13.2 The first question connotes that the movement of the Capital of Nigeria to Abuja like all the Third World Capital Cities that have moved, has its own history; this serves as the remote cause of the Capital City concept. The latter question asks for the factors leading to the immediate decision to build the new Capital City.

13.3 The remote cause:

(i) The salient feature of the colonial capitals is their pronounced instability, essentially an earmark of the pioneer fringe in which they were located, denoting the experimental stage of trial and error. Thus quite often these capitals shift from one location to another, occasionally even to a third, in such a way as to suggest that they were sometimes hasty, improvised geographical adventures or unsuccessful urban speculations. For example, in Portuguese Guinea (Guinea Bissau) the capital underwent three shifts; until 1890 it was Geba, so central but so malarial that it had to be moved to Bolama whence it again moved in 1942 to Bissau on a densely populated island in the Geba estuary. (Hamdan, 1972). In Ivory Coast the capital remained in Grand Bassam until 1900 when, after a series of epidemics and plagues, it moved to Bingerville from which it again moved to Abidjan in 1934. Until 1926 Zinder was capital of Niger, but its desert location, though central, necessitated its replacement by extremely marginal, but riverine Niamey. Brazil has succeeded in moving its capital to Brasilia. As Farret noted, the decision to move the Brazilian capital from Rio de Janeiro to the

interior was a realization of an idea which had persisted almost throughout the history of Brazil since 1789, occurring in the legislative proposals as early as 1822, and incorporated in the Constitution since 1899.

(ii) The instability of the contemporary political environment as represented in movements of unification and separation is another factor controlling the fates of many capitals. Thus Kigali in Ruanda was created by political fissioning and less states of Mauritania in North Africa, and Basuto in Southern Africa are now facing the problem of developing new capitals of their own.

13.4 In Cameroon, Buea, a health resort and a "hill station" inland was the capital under the Germans until the seat of administration was moved to Douala under the French, whence it again migrated back to Yaounde after the amalgamation of French speaking and English speaking Cameroons. Libya, vexed by her capital dualism, has after a prolonged hesitation between many sites including el-Shahat and el-Beida in Cyrenaica, opted for the latter and has already begun developing it as the new federal (now national) capital.

13.5 It is precisely definite to believe that the two features (fringe location and political instability) have contributed to deciding the locations of the capital of Nigeria. Between 1859 and 1869 during the colonial mercantilist period, Lokoja became the capital of the British Trade Mission and had influence in the interior (Sir Alan Burns, 1973). At that time Lokoja was known as Laird's Town, Laird being the first Consul of the Royal Niger Company. In 1891 Old Calabar as the headquarters of the Niger Coast Protectorate was able to

hold suzerainty from the borders of Cameroon across to Dahomy, now known as the Republic of Benin, and down to the Islands of Equatorial Guinea (Fernando Poo). Lagos Colony was exempted and it remained during the same period as the capital and port of the Lagos Colony. In 1899 the Colony was joined with the Niger Coast Protectorate. In 1900 the territory was renamed the Southern Nigerian Protectorate. This marked the end of the role of Old Calabar as the headquarters. It also coincided with the cancellation of the Royal Niger Company Charter and the establishment of the Protectorate of Northern Nigeria with headquarters at Kaduna. With the appointment of Sir Frederick Lugard in 1912 as Governor of both Northern and Southern Protectorates by the British Colonial Office, that paved the way for the amalgamation of both protectorates. In 1914 the colony and protectorates of Northern and Southern Nigeria were amalgamated and Lagos became the capital of what is now known as Nigeria.

13.6 It is easy to draw some conclusions from the review. In spatial terms the locations of these capitals were characterised by the needs of colonial exploitation, that is a few agricultural regions, mining sites and coastal sites. Since they were related by sea directly to Europe (England and France) they were not articulated among themselves. In this case the capital cities were not located in relation to the rest of the country. No doubt in Brazil the relocation of the capital to the interior was seen as an attempt to erase everything that could be reminders of the Portuguese domination symbols, such as the city of Rio de Janeiro (Farret, 1983, p. 146). While this idea may remain true in Brazil, one can argue that the existing capitals are about the only place in a poor country where the economic potential has been

accumulated to guarantee a reasonably decent cultural climate necessary for modern capital, and it is no easy proposition to duplicate them anew or forsake them for 'raw', poor and incompetent centres. Breese et al. (1972, page 152) observed that if these capitals symbolise the colonial past they equally symbolise the nationalist movement since they were the seats of the struggle for liberation and independence.

13.7 There is no reason to doubt the existence of instability in the contemporary political climate as reflected by movements of unification and separatism; no reason to deny that most of the locations were not proper because they do not consider centrality in terms of accessibility from all the parts of the country, and no reason to doubt that the cultural differences were not seen then as a destabilizing factor in federal systems. If countries are now searching for new capitals, this is purely because of physical or domestic reasons or both. It is in this context we shall see how the capital of Nigeria trekked back to what can be relatively described as the central part of Nigeria, as can be illustrated in the figure below.

FIGURE 13.1: DISTANCES FROM FEDERAL CAPITAL TERRITORY (FCT)

From FCT	To	Distance in km	From FCT	To	Distance in km
FCT	Kano	345	FCT	Yola	590
	Sokoto	525		Calabar	485
	Maiduguri	735		Port Harcourt	470
	Lagos	505		Benin City	345

Source: Author's calculation, 1982.

This notion of centrality enhanced by large area of uncommitted land places an advantage on Abuja over alternative sites which may not possess it.

Immediate causes:

13.8 With the coming into effect on May 27, 1967, of the States (Creation and Transitional Provisions) Act No. 14 of 1967 dividing Nigeria into twelve states, Lagos assumed the status of playing the dual role of being the Federal Capital and the Capital of Lagos State with both Governments having the seats of their administration in the city. That dual role undoubtedly heightened the pressure on the infrastructural facilities that existed then giving rise to:

- i) Over population in respect of existing socio-economic infrastructures.
- ii) High cost of living, particularly rents and movement to and from work.
- iii) Traffic congestion.
- iv) Existence of slums, and
- v) High crime rate.

13.9 The reactions of the people against these social ills manifested in several ways, for example, refusal of senior civil servants to take up appointments in Lagos, squatting or living under bridges and in abandoned vehicles because of lack of accommodation or inability to pay rentals; concerted breach of traffic management regulation of allowing on the highways "even number" and "odd number" vehicles on alternate days, etc. To these social ills which persisted in spite of costly attempts

by both the Military Government and Lagos State Government to combat them, put into sharp focus once again the need to review the position of Lagos in the light of its role as the Federal Capital City.

13.10 On the other hand, the Government reacted by appointing the Aguda Panel as had been described in Chapter 11 above. The acceptance of the recommendation of the Panel by the Federal Military Government led to the promulgation of the Decree No. 6 of 1976. In respect to NFCC Abuja, the aspects of the Decree that affected it directly included:

- (a) Establishment of the Federal Capital Development Authority.
- (b) Functions and powers of the Authority.
- (c) Executive Secretary and other staff of the Authority.
- (d) Compensation payable.
- (e) Development without Authority's approval prohibited.
- (f) Power to enter premises and obtain information.
- (g) Offences and penalty therefor.
- (h) Offences by bodies corporate.
- (i) Accounts and audit.
- (j) Annual reports to Supreme Military Council.
- (k) Transitional provisions as to administration of laws; and
- (l) Regulations.

13.11 The Federal Capital Development Authority (FCDA) consists of a Board and the members of the Staff. The Board Members include the Chairman and eight other members.

This body is usually appointed by the Head of State or President from various parts of the country who belong to the Presidential Political Party.

13.12 Under the Act, the Authority was charged with the responsibility for:

- (a) The choice of site for the location of the Capital City within the Capital Territory.
- (b) The preparation of the Master Plan for the Capital City and land use with respect to town and country planning within the rest of the Capital Territory.
- (c) The provision of Municipal Services within the Capital Territory.
- (d) The establishment of infrastructural services in accordance with the Master Plan, and
- (e) The coordination of the activities of the Ministries, departments and agencies of the Government of the Federation within the Capital Territory.

13.13 This body has since then begotten other two bodies - the Federal Capital Territory Administration and the Federal Ministry of Land Administration. The appointment of the members of the board and, in fact, personnel to senior management posts of the Authority can be said to be nothing but political.

13.14 In 1969 in British New Towns the "official" line was still that planning was not a political affair and the Central Government clearly felt little need to make the New Towns development corporations more a part of the local political structure (Aldridge, 1979, pp. 190 - 191). Given this line of thought, any developer, whether public or private, may well fear that a plan

subject to all trials of democratic processes may be impossible to carry out, given the time cost factors, the scale of the project and the difficulties of achieving the necessary rationality and balance of land uses (Agwu, 1979, page 67).

13.15 The political content of the new town policy has been accepted in Abuja. With this realization, the Minister of a cabinet rank becomes the Chairman of the FCDA Board. Though members are not electorally accountable to the people, a member is appointed from each of the states that contributed land to the FCT. By implication, the Federal Government accepts the local representation as part of the political structure of the FCDA, Abuja.

13.16 The site selected for the NFCC was the Gwagwa Plains in the North Eastern quadrant of the Federal Capital Territory. It is bounded by the Abuja Hills to the North, the Karu-Agwai Hills to the East and Zango-Kutu Hills to the South. The site was selected out of the three possible alternatives after careful examination.

13.17 Implicit in the history of Abuja as a capital city concept is that Abuja is seen as a means to rectify the regional imbalances in Nigeria. The tendency to agglomerate (sectorally and spatially) has been reinforced by the official new town programme and the tendency to industrialise via market mechanisms. The former is implicitly based on Perroux (1961, page 167), Ruttan (1955, page 56), Hoselitz (1953, page 203), Wright (1965, pages 148-149) and Gerschenkron, (1963, page 59) growth pole notions by developing Abuja in the middle-belt of Nigeria. It is based on a massive public investment which is urban-industrial in character.

The latter is derived from the concept of "even development" by encouraging both public and private investments in the area (via the development of social and economic infrastructure) with the private sector having almost all the powers to decide on what and where to invest in the Territory.

13.18 To ignore these historical trends, problems and needs, is to pretend that everything is working as it should work. But the pressures will remain until someone, sometime, realises what is wrong and invents a solution.

THE MASTER PLAN

13.19 Having satisfied ourselves with the bases of the relocation of the NFCC to Abuja, it is necessary to reiterate the main function of a capital city in the Nigerian context. Abuja is geared to serve as the administrative capital of Nigeria. It is also anticipated that the development of Abuja will eventually lead to the solution of the urban problems, especially those associated with Lagos. With these in view, the International Planning Associates (IPA) were invited by the FCDA to undertake the preparation of a Master Plan for the New City and its regional grid in June, 1977. Figure 13.2 illustrates the Master Plan for Abuja.

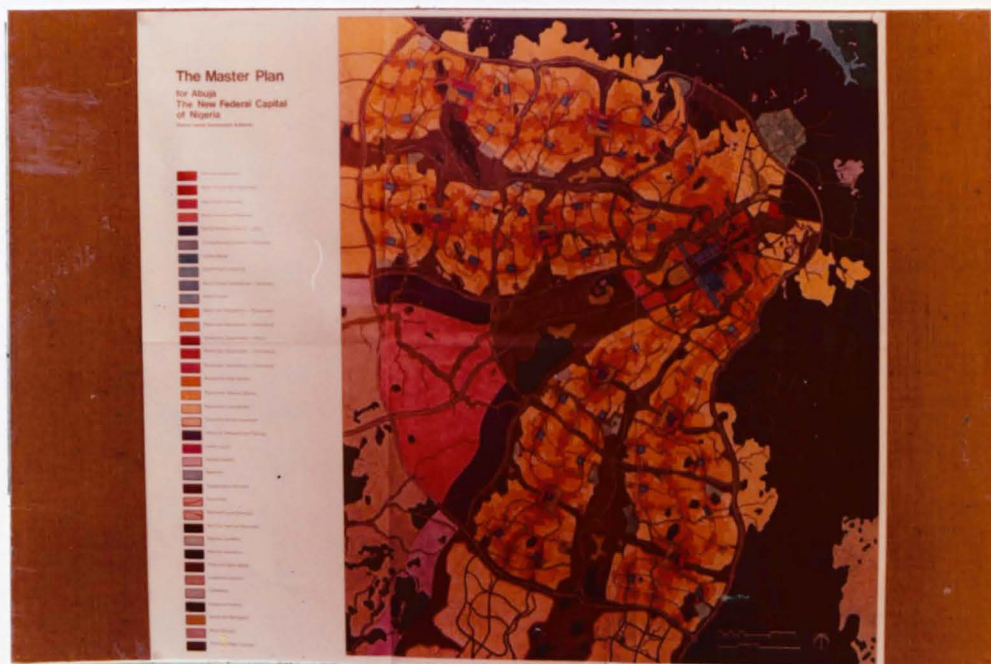
13.20 A number of goals were set down by the Consultants, all tailored to achieve the primary function of the New City as an administrative centre. These include:

- i) Imageability which is meant to be the perception by observer of a city's purpose, organization and symbolism.

(ii) Efficiency, which is the rate with which the purpose of government is achieved and individual, and the rate with which...

(iii) Flexibility, which is the rate with which growth and development are achieved...

FIGURE 13.2: ABUJA: MASTER PLAN



- ii) Efficiency, which is meant the ease with which the purpose of government, business and individual, can be carried out, and
- iii) Flexibility, which is meant the ease with which growth and change can be accommodated.

13.21 Finally, for the NFCC to be a successful living environment as well as a national expression of Nigerian unity, the form and organization of the city must be responsive to Nigerian urban traditions and life-styles (IPA, 1979, page 61).

Imageability:

13.22 The goal of imageability is reduced to the objectives of symbolic form and strong identity. To achieve a symbolic form, the NFCC regional setting at the central part of Nigeria is meant to achieve the loyalty of the entire country, so by this it becomes the government core of all the states' administration. The plan is organised around the seat of the National Government which has been given a prominent dignified site adjacent and opening out to the surrounding Zuma-Bwari-Aso Hills. The escarpments of hills on the North, East and South of the Gwagwa Plains form a shallow amphitheatre between them at an elevation of 363.6 metres. This topographic feature produces the basic crescent shape of the city. There is a special significance for locating within an area in a triangular formation; the National Assembly Buildings where the country's laws are made at the apex of the triangle, and at the one point of the base, the Presidential Complex, and at the other, the Supreme Court of the Nation.

Efficiency:

13.23 Theoretically efficiency is achieved through arrangement of land uses in coordination with transportation and maximizing accessibility among interrelated activities. This requires appropriate technology, infrastructure design, selection of building standards and density. It also requires the maintenance of balanced state relationships between activities as growth occurs (IPA, 1979, p. 62).

13.24 The plan proposed a single centre with a linear form. The linear form possesses nodes. This structure is easier to serve with high quality public transit than multiple centres. The multi-centred forms may minimise local travel but require substantial metropolitan scale travel.

13.25 Service system hierarchy is adopted by proposing various levels of centres (nodes) descending from the Central Area to the Sector, District and Neighbourhood Centres facilities and commercial activities to influence efficiency as indicated by the number and distance of trips required to reach those facilities.

13.26 From the economic point of view, various services require various population sizes and purchasing capacity to operate optimally. When such population optima have not been reached to enable such activities to locate, the early new town settlers will either be without such services or they will have to travel to places where the services can be obtained. By implication the full efficiency of a New City is only achieved with certain population size and matching facilities which may or may not be reached at the outset of the city. Any attempt to reach the highest efficiency with sub-optimum

population will result in overbuilding, and the cost effectiveness of infrastructure is reduced. As a compromise the plan proposes staged upgrading and growth. Other ways of achieving efficiency had been suggested. These include using the natural water courses for gravity sewer systems; building on an east-west axis to reduce exposure to solar radiation, and so on.

Flexibility:

13.27 For the plan to be flexible it would be able to accommodate growth, transition, reorganization and uncertainty. To achieve these the plan proposes phasing of the development programme over an extended period of time. For uncertainty, plans cannot be considered final recipes for a city, but rather as an overall framework for growth which can deal with unforeseen as well as predictable changes brought about by growth change in technology, the economy, society, and institutions (IPA, 1979, p. 63). The plan recommended meeting the uncertainties in part by simply leaving room for change and by avoiding construction decisions which do not allow for modification in the future. The development will be extended in the form of largely self-sufficient modules for accommodating growth. The argument is that with such extension, greater costs are likely to be incurred, but there is little one can expect in view of economic uncertainty. In addition to extension, construction can be phased on a module-by-module basis to reduce the impact of noise, dust and disruption accompanying a continuous long-term construction programme.

13.28 Similarly "Loose Fit" strategy has been suggested to accommodate growth or unexpected change of policy. "Loose Fit" strategy provides the basis for untimed planning by establishing those "key" or "strategic"

elements of the plan which can be fixed at the outset and defining their locations and desired characteristics as part of the plan. It is on these bases that such elements as the various infrastructural transportation networks, the Abuja Airport, the University of Abuja, the Teaching Hospital, and the industrial estates have been located within phases two and three and even outside the designated city boundaries.

13.29 The issue of national unity was specifically emphasised in the Decree No. 6, 1976, setting up the FCDA. One would not wonder why such emphasis was made especially by a government that was only emerging from the civil war; was in the midst of implementing its policy of Reconciliation, Rehabilitation and Reconstruction (the 3 R's) and a country which is facing strong demands for the creation of new states by the minority elements in the country. The IPA accepted the goal of national unity as given, but a policy analyst would like to go further than that by asking what it actually entails. For some people the National Unity goal is realisable only when employment opportunities are made accessible to all the citizens of the country without discrimination based on ethnic, religious or political reasons. To others it means co-habitation of all ethnic groups and avoidance of zoning of residential areas between the rich and the poor at Abuja. It would also mean to a few that land distribution in the NFCC be rid of discrimination of all sorts, and the need for equitable representation of all the states of the country in the management of Abuja. Since the goal was not operationalised, its clarification will be left with the political representatives of the people or the people who elected them to office.

Population and Employment:

13.30 Given the overall objectives (explicit and implied) established during the plan making process, the physical extent of the Territory, the development controls on building heights, open spaces and the existing sparse population of the Territory, the IPA produced a target population of 1.6 million people for the NFCC in the year 2000. The plan projected that by year 1986 a total of 150,000 would settle in the Capital City Abuja.

13.31 The population estimates were based on labour force participation relationships for both the formal and informal sectors, headship rates and workers per household typical in Nigeria. The total population related to 858,000 labour force was estimated to be approximately 1,642,000 people. This reflects a total (formal plus informal) labour force participation rate of 52 per cent.

13.32 In determining the age/sex distribution the plan developed the factor from the Nigerian 1963 census with adjustments made for minor changes in fertility rates and an overall aging of the population over time (IPA, page 58).

13.33 The problems confronting planners in the use of population statistics in developing countries are well known. The importance of population projection in physical planning is also understandable. The accuracy or otherwise of the final results depends on the quality of the data fed into the projection; both at the outset and as they are assumed to change over time. The

situation is not helped when some countries lack population data, or the available ones are outdated, as the 1963 Nigerian census. A purist theoretical demographer might maintain that in such circumstances satisfactory population projections are not possible (Moss, 1983, page 115). However, to estimate the present population, various methods are available.

- (a) Sample surveys; and
- (b) Aerial photography coupled with simple sample survey to establish an average occupancy rate.

13.34 A number of inconsistencies can be observed from the population projection for Abuja.

- (i) The two variables - age/sex and population variables derived from the 1963 census and labour force participation respectively do not belong to the same source of data and are bound to present distorted information.
- (ii) The labour force of 858,000 accrued from adding up values from the public sector, industrial sector and service sector. Primary sector made up of agriculture, mining and others was excluded, which invariably means that the population already in the territory who were engaged in farming was not included. Furthermore the labour force criterion was assumed constant between the present and the designated forecast date in terms of change trends. Predictions of future conditions with the inclusion of changes in trends often become more complex, however, because many developmental activities, especially large construction projects, occur in relatively distinct phases

which have quite different effects on population growth as well as social environment. Olsen et al. (1977, page 51) gave example of a large construction project with the construction of nuclear power plant. They said that a nuclear power plant may require approximately 3000 workers over a six-year period, but once the plant is operational, it will require only 300 personnel for the next 30 years. To further complicate the picture, the work force required during the construction phase builds up to a peak during the first two years, remains at that level for about two years, and then drops steadily until the project is completed. Major road and dam construction activities at Abuja have more fluctuating characteristics than the case of nuclear power plant quoted above. Hence the population forecast based on labour force should have been divided into firstly, between the Federal civil service and the construction industries, and secondly, the construction activity of the NFCC be divided into short operational phase and long operational phase with each phase having different effects on the growth of population.

- (iii) The FCT consists of many ethnic groups with cultural differences between them. It is likely that they will exhibit different demographic characteristics within themselves and even between them and the already urbanized migrants from other parts of Nigeria. They must be treated separately for projection purposes. Treating all similarly or using averages can be misleading.
- (iv) The subject of population projection can be sensitive with political overtones in view of the population to be compensated for acquiring the

lands they had developed. The various states which contributed land to the FCT would like to get as much compensation as they would from the Federal Government of Nigeria. The compensation is paid according to the number of people said to be displaced. This means basing the projection on the existing population is even prone to error.

Employment:

13.35 Similar to the population projection, the forecast for labour force is misleading. The IPA plan estimated that the population most actively participating in the labour force (ages 17 to 55) will total 941,000 in the year 2000, and 80 per cent of this would be employed. Figure 13.3 shows the distribution of total labour force by sector and type for 1.6 million population.

FIGURE 13.3: DISTRIBUTION OF TOTAL LABOUR FORCE BY SECTOR AND TYPE

Sector	Formal	Informal	Total
Public Sector			
1. Federal Civil Servants	60,300	-	-
Parastatals	65,000	-	-
Other public employees	46,000	-	-
Subtotal	171,300	-	171,300
2. Industrial Sector	84,200	31,000	115,200
3. Service Sector	241,850	333,000	571,850
Total Employment	497,350	361,000	858,350

Source: IPA - 1979, page 58, Master Plan for Abuja, the New Federal Capital City.

13.36 Out of this figure the plan did not show how many will be male or female. The Public Sector contributes about 20 per cent of this number. The movement of civil servants to Abuja will depend on their being provided with housing. "All new towns (British my addition) aimed to keep a fairly tight rein on the link between houses and jobs through the Industrial Selection Scheme and similar procedures, although this was not a central directive" (H.C. Debates)¹Aldridge (1979, p. 54). It goes well that to avoid hardship officers moving from Lagos should be assured of housing both in public and private sectors.

13.37 The Industrial Sector will absorb 16.9 per cent of the total work force and 8.6 per cent of informal sector employment will occur in the industrial sector. These employment estimates were made independent of industrial investments, but optimal use of incentives to attract industrial investments was assumed.

Land use proposals:

13.38 The Central Area Plan has been reviewed by Kenzo Tanga, a Japanese firm of Architects and Planners, in 1980 for the detailed description.

13.39 The Central Area Plan per se consists of the Three Arms Area, the Ministries Zone, the Cultural Zone and the Central Business District. The Three Arms Area consists of the National Assembly Buildings, the Presidential Complex and the Supreme Court of the Nation.

1. H.C. Debates, Volume 523, Column 826.

13.40 The Ministries Zone: This zone is composed of the National Mall, the Ministries Buildings Area, the States Liaison Offices Area and the Ministries Garden.

13.41 The National Mall is composed of two parts. The first part is in the Valley area whose natural terrain is used effectively as terraced sunken gardens. These terraced decks include many amenity facilities such as restaurants, coffee shops, small cinema, disco clubs, bars, night clubs, boutiques and an amphitheatre so as to enliven the area after office hours. These facilities can be connected to the bus stations and the future subway stations by means of pedestrian underpasses which are linked to the Ministries Garden.

13.42 The second part is the States Plaza Area which consists of States gardens including small amenity facilities such as coffee shops, kiosks and others. In future the subway stations will be introduced here in the sunken garden so as to help increase the activity around it at any time of the day.

13.43 The Roads bordering the National Mall are to be planned and landscaped with such dignity as to reflect their important ceremonial function. They are meant to pass over the valley on bridges which are to be kept at the same uniform slope from the National Square. The spaces below the bridges can be used for parking and for commercial purposes along the part which faces the National Mall. Ministerial buildings flank this Mall on both sides. The ministerial area plan has been modified a bit and some ministries and parastatals have been relocated to the "IJKL" District because of spaces which were found to be inadequate for them.

The Ministries Garden:

13.44 Each block area in the Ministry Zone is provided with a green open space in the centre. This seems to be a desire to harmonise the works of man with those of nature. In spite of these and the green area in the valley, other green spaces are artificially created to help the environment. In order to increase the intensity of the activities in the Ministries Zone, especially after working hours, two types of residential development have been introduced in the Valley Area. The first type is a series of high quality residential blocks for high income groups, to be located behind the States Liaison Offices. The second type of residential development was for transient people who visit the City in connection with Government or Commercial activities. They consist of hotel and motel type of terraced development along the valley.

13.45 The Valley Area can be connected to the National Mall through a pass under the bridge. Small shops, newspaper stands, restaurants, wine and beer off-licence stores and petrol stations are proposed there.

13.46 All the green spaces are connected to the National Mall by pedestrian ways. These open spaces and the National Mall form the green network system of the Ministries Zone.

13.47 Finally, the States Liaison Offices Area is located behind the Ministries Building Area. Each Liaison Office is independent in order to improve privacy.

The Cultural Zone:

13.48 Perpendicular to the Civic Axis lies the Cultural Zone which is surrounded by parkways. This zone is composed of those buildings which are of cultural importance. Facing the National Mall is the National Square. In this Square the municipal building is located; the ground floor of the building will house facilities such as exhibition space, meeting halls and play area for the use of the citizens. The National Theatre is located to the north west of the National Square and further on the Central Mosque is to be found; the National Museum is located beyond the inner Expressway. The surrounding ground is proposed for open-air exhibition and the valley area is particularly suitable for this purpose. The National Library is located to the south east of the National Square. Further on to the south are the Cathedral; the National Conference Centre lies to the south east of the Nigerian Television Authority. The pedestrian way is proposed through this Cultural Zone and will be complemented with street furniture and planting.

Central Business District:

13.49 This is composed of the Central Shopping Area, High Rise Office Area, Mixed Land Use Area and the Valley Area.

(a) The Central Shopping Area starts from the National Square and ends at the Transportation Centre. It consists of a low-rise shops, parallel to the Central Shopping Mall and small higher level shops at the three city square around which will be located such buildings as cinema, library, theatre exhibition hall, community

hall and other facilities which will activate the Central Business District Zone both during the day and at night.

(b) The high rise offices are located on both sides of the Central Shopping Area.

(c) The mix Land Use Area is essentially the residential area in the commercial zone. Public service facilities such as schools, dispensaries, playground and low-rise development are located mainly in this area.

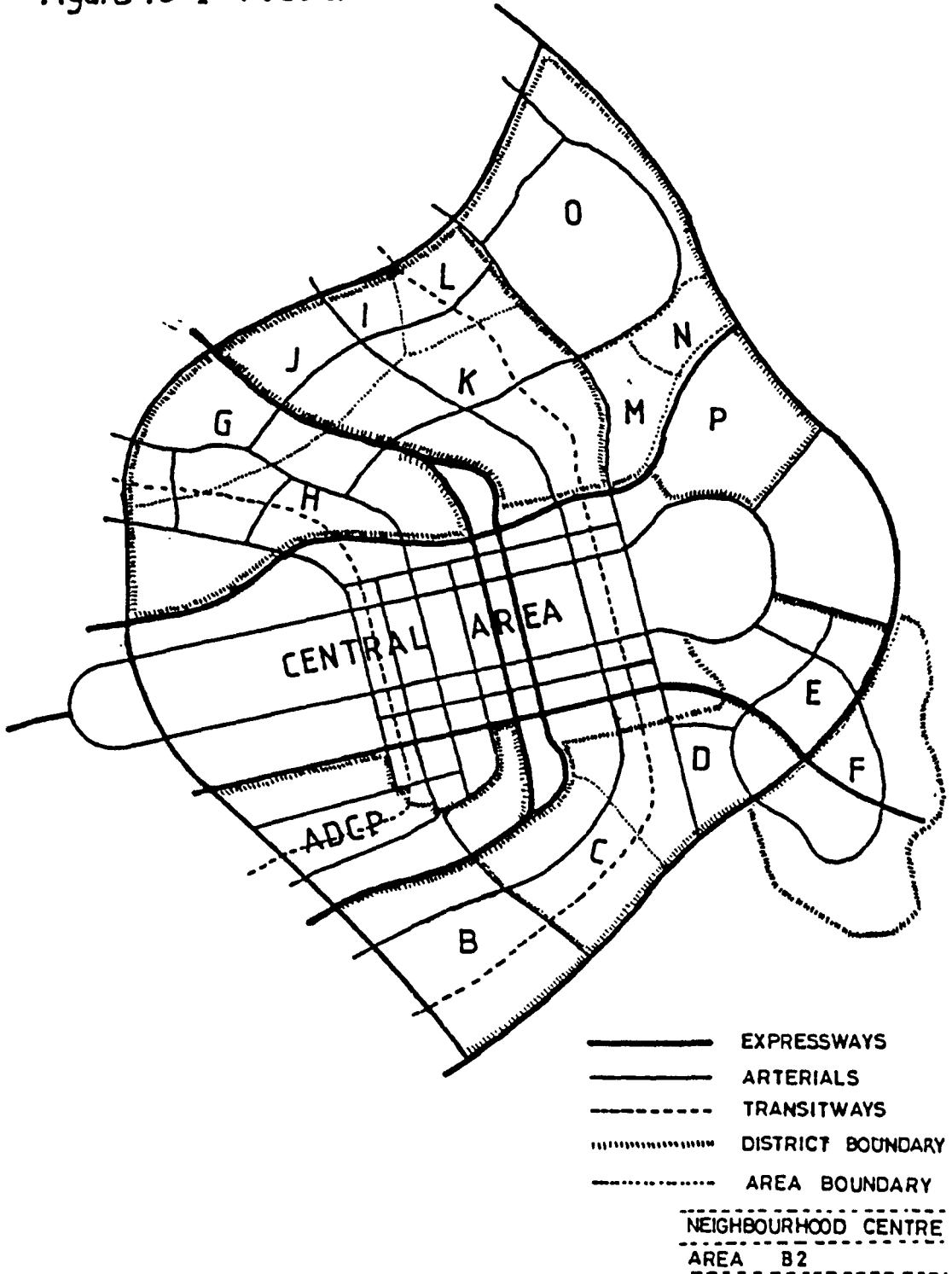
(d) The Valley Areas occur in the Central Business District. They are proposed to be as much as possible left in their natural state. However, compatible activities, such as hotel and recreational facilities, are to be allowed in the Valley Area.

(e) Health Centres are provided to serve the population in the Central Business District, Ministerial Zone and the Accelerated District.

(f) In addition to parking spaces provided within individual activity areas, parking garages have been proposed under the bridges over the Valley Areas with attractive shopping facilities facing the Valley Areas.

13.50 The characteristic of this Central Area is to simultaneously create distinctive sectors with character of their own. The endless superblocks of Brasilia and Islamabad were considered a failure by the planners and designers of the Central Area for the Abuja New Federal Capital City, (IPA, 1979, page 62). Figure 13.4 illustrates the Central Area of the Phase 1 Area.

Figure 13.4 F.C.C. PHASE 1



Residential Area:

13.51 The IPA plan proposed a hierarchical arrangement as a favoured approach for providing residential services and facilities. At the highest level is the City as a whole. Below that is the Sector, District and Neighbourhood centres. Each is based upon the numbers of people to be served by particular facilities.

13.52 The Sector Centre is located along the transit way system to facilitate accessibility from all the sections of the Sector. It is planned to serve between 100,000 and 250,000 people. It is meant to be substantially self-contained with respect to service systems, formal commercial and government employment, highest level of public services, post secondary and special education facilities, referral hospitals which provide comprehensive health care and main library. In addition it is expected to provide for post and telephone central exchange, police district headquarters, sports and cultural facilities.

13.53 Using this hierarchy as a starting point, the prototypical residential unit of the NFCC is defined as the Sector (IPA, 1979, page 109) as illustrated in Figure 13.5 and Figure 13.6.

13.54 Below this level is the District Centre which will be equipped to service a population between 30,000 and 60,000 persons. The District centre elements relate to the Sector centre elements, but on a lower scale. For instance, in the District centre instead of referral hospitals one would expect a health centre, instead of the main library, a branch library will be developed. In addition it is expected to provide for police stations, secondary schools and others.

FIGURE 13.5: SECTOR CENTRE

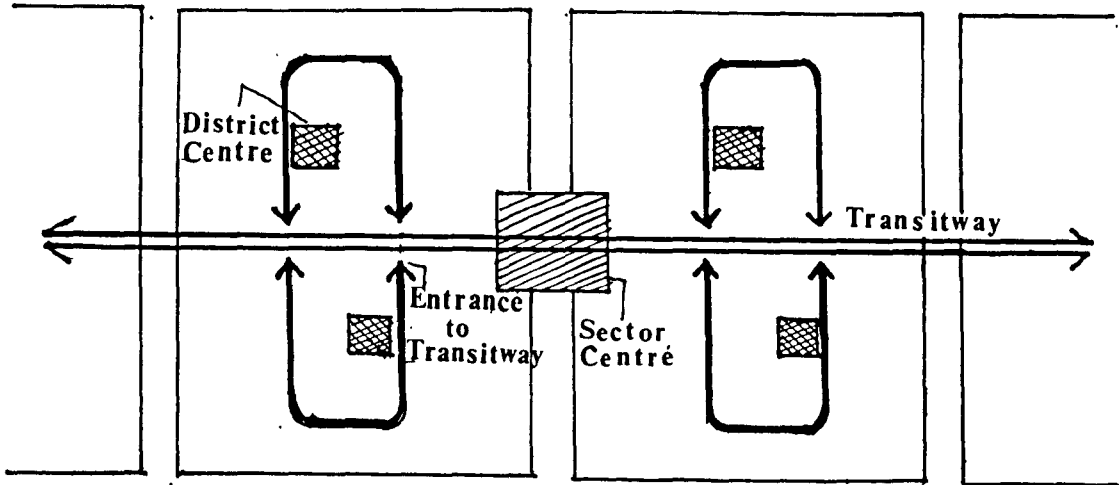
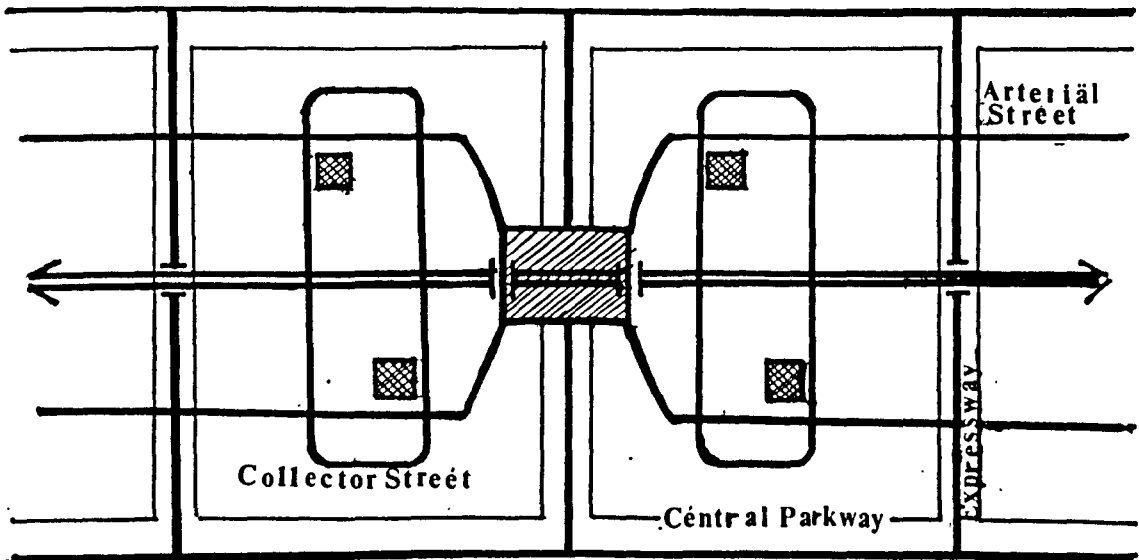


FIGURE 13.6: SECTOR ROAD SYSTEM



13.55 The District centres are located as much as possible along the Collector Roads which provide access to and from the Arterial Street and Transit Roads. Employment areas are proposed which are meant to provide job opportunities to the residents to reduce long journeys to work. Figure 13.7 illustrates the Accelerated District Capital Project (ADCP) as one of the districts of the NFCC.

13.56 Each District is subdivided into local residential communities called neighbourhoods, designed to serve a population between 4,000 and 6,000 persons.

13.57 A Neighbourhood unit becomes the focus of community social identity and the scale suitable for provision of many household related services. The concept is seen as appropriate to the Nigerian governmental and service organization, urban and traditional systems.

13.58 Administratively, it is associated with ward, which is the smallest unit of local government. Socially, the ward is associated with family lineage and occupational groupings expanding by absorbing immigration according to ethnic and kinship relations and fissioning into new densely built-up sub-areas. (IPA, 1979, page 112). Even in the colonial new towns (Type 1 New Towns) the ward level of administrative organization often provided a sense of identity.

13.59 Traditionally, also, residential sub-areas have often been defined by kinship-linked clusters of households with substantial social interaction.

FIGURE 13.7: ABUJA: THE ACCELERATED DISTRICT CAPITAL PROJECT (ADCP)



13.60 The Neighbourhood centre is based on such services as a church, a mosque, primary schools, cafe/bar shop, shops, health clinic, meeting hall, post office, police post, market and open spaces.

13.61 The concept of safe and convenient neighbourhood unit is found in Howard's Garden cities where Howard shows concern for the reduction of the journey to work, the provision of local shops and the routing of main traffic arteries around and not through the wards (Purdom, 1963, ed.)¹.

13.62 Reading Garden Cities of Tomorrow (Howard, 1965) gives no justification for this view, while Reith Committee specifically rejected the idea that people should identify themselves primarily with their neighbourhoods.²

13.63 The idea was developed by Clarence Perry who introduced the definition of a unit based on a residential area size, boundaries, open spaces, institution sites, local shops and an internal street system (Aldridge, 1979, page 129). Perry's concept was hierarchical and identified three strata in the urban structure - residence, the neighbourhood unit and the city. Unlike Perry's concept the IPA Plan (1979) extends it to four excluding residence.

13.64 In support of localised shopping, Levin and Bruce³, point out that the convenience of a school

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1. Purdom, 1913. The Garden City, London.
Purdom, 1963. The Letchworth Achievement, London.
 2. New Town Committee, 1946c, page 16.
 3. Levin and Bruce - The Location of Primary Schools, Some Planning Implications - Current Paper 39/68.

for mothers depended not only on its location but also on the ease with which other activities, especially shopping, may be combined with escorting a child. But they agreed that the location of primary schools and their accommodation, cannot be matched to such variable and mobile demands as encountered in New Towns.

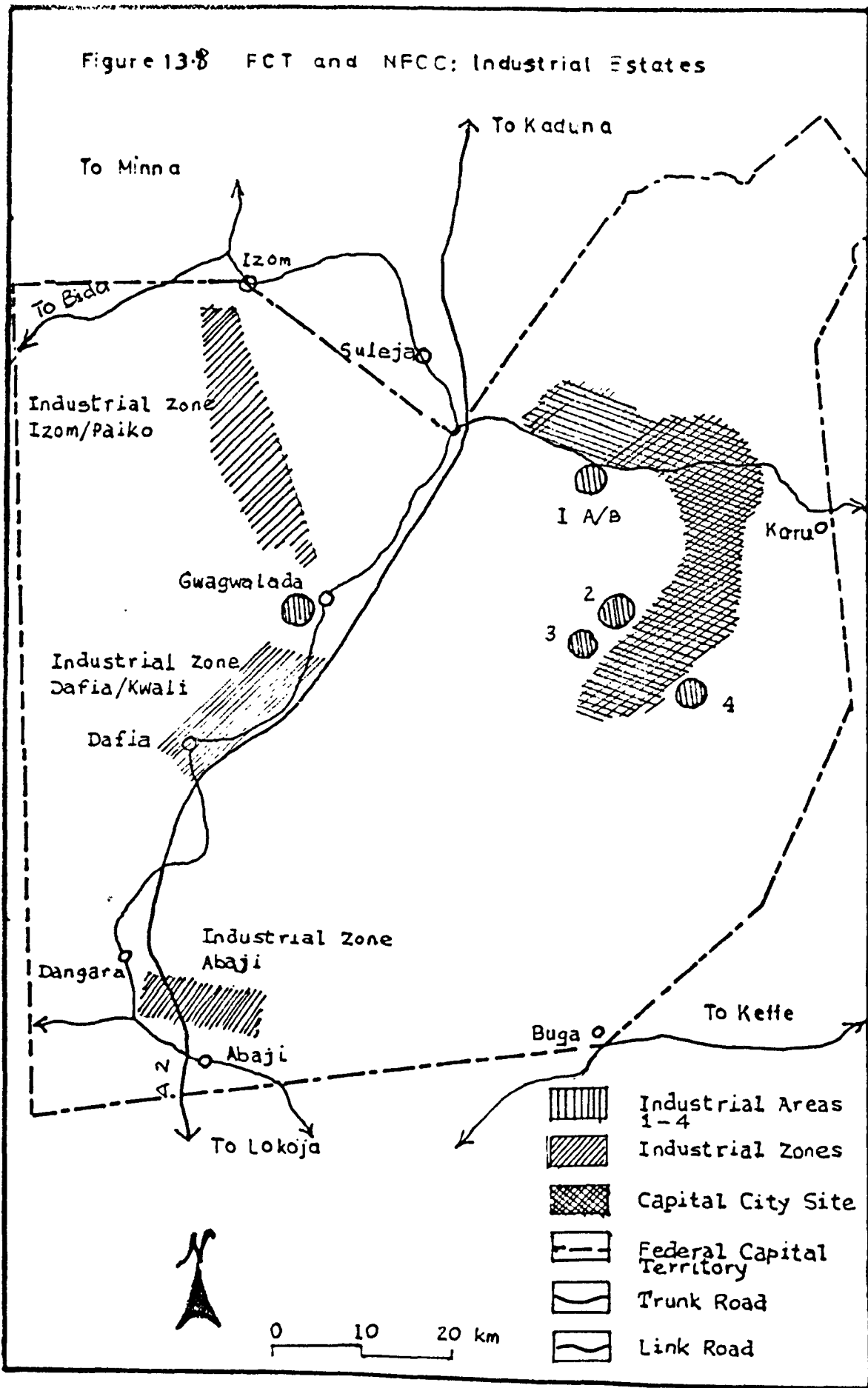
Industrial Estates:

13.65 The IPA Master Plan for Abuja provides four main industrial estates along the edge of the Capital City. These are designated as Industrial Area 1A, 1B, 2, 3 and 4.

13.66 The Industrial Area 1A is located west of the Ring Road 3 outside the city boundary, but along the future Northern Inner Expressway in the north and the future railway reservation in the south. The River Jachi runs in the north and west of the area. The Industrial Area 1B lies east of the Industrial Area 1A and bounded by Ring Roads 3 and 2 of the Inner Northern Expressway in the north. The Industrial Areas 2 and 3 are located parallel to the Inner Southern Expressway and the two sites are only separated by the Eastern portion of Ring Road 3. The Industrial Area 4 on the other hand is located beyond the Outer Southern Expressway at the intersection of Ring Road 2. The locations are shown in Figure 13.8.

13.67 Barring a major government policy to promote industrial development in the FCT, it was found that the types of industry likely to occur would prefer to locate in the Capital City (IPA, 1979, page 21).

Figure 13.8 FCT and NFCC: Industrial Estates



13.68 The locations of these industrial estates for a variety of reasons will be faced with initial problems when they take off. The industrial workers would travel a considerable distance from the developed sections of the city or from elsewhere. Adjacent to the Industrial Areas 1A and 1B a residential district is proposed to provide housing to the industrial workers, but with a change in policy in 1982 the development of the District will be left to market forces.

13.69 The estates are designed to accommodate the projected formal industrial employment of 84,200 workers and shall be supplemented by small-scale industrial activities located in sector centres or dispersed in residential districts as "cottage industries".

13.70 The Industrial Area 1A occupies an area of 375.5 hectares which is subdivided into three phases of 123 hectares, 120.5 hectares and 118 hectares respectively. There is also an area of 14 hectares reserved for Container Terminal. The policy of the FCDA is to locate food producing factories, textile, clothing and leather, chemical and glass, mechanical and electrical and building material factories.

13.71 The designated area for Industrial Area 1B is 530 hectares but about 155 hectare plot of this area is occupied by the green belt and the Karumo Forest Reserve, leaving a developable area of 375 hectares for industrial and educational land uses. The Industrial Area is to provide 9000 working places. In its educational zone two vocational and two technical training schools are proposed; one of each being a boarding-type school, and in addition two management colleges are proposed. Altogether between 3000 and 4000 students will be able to attend the six schools, with more than 1000 living on the campus.

13.72 Light industrial activities and city-wide food storage, processing and distribution activities are to be accommodated in the industrial estate. The main industrial types should include food, textiles, clothing, paper manufacturing, graphics and some chemical plants.

13.73 Common facilities are proposed. These include post and telegraph office, police station, fire station, religious facilities and commercial facilities. Others include shops, offices, restaurants, bars, guest houses, bank, retail uses, repair workshops, First Aid Centre and Petrol Filling Station.

13.74 Training and research facilities are to be accommodated in the estate in order to encourage professional cooperation, on-site student job training and experience, and the equipment resource pooling.

13.75 The Industrial Area 4 is designated for light industrial complexes. Advanced factory units are proposed on the site in order to promote industrial investment.

13.76 The industrial activities are meant to complement the administrative function of the new capital city. Abuja favours industries that are import saving as dictated by the present national policy (FMNP, 1981-85, p.32) non polluting and compatible with the primary function of the City which is the Federal Government Headquarters.

13.77 It is the policy of the Federal Government to promote industrial development in the FCT, but this will be limited to non-polluting or non emission industries especially in the New Federal Capital City. In order to

maintain a balance of industries in the FCT, the industrial choice in the Territory will include both heavy engineering and light to small scale industries, and the industries which will employ both men and women when they are developed.

Housing:

13.78 For the housing programmes the plan proposed the use of subsidies which will be recovered through user charges, credit access and terms, regulations on land, building, occupant selection and others. The NFCC should aim at developing a housing finance institution in the context of a national housing programme involving the Ministry of Finance, the Ministry of Works and Housing, the Federal Mortgage Bank, private savings and loan institutions, and possible international development institutions.

13.79 It was seen as a better alternative than the NFCC becoming a "land lord" to people by providing housing from public money.

13.80 The notion of becoming an owner occupant is traditional in Nigeria and this is seen as an appropriate approach to housing in the NFCC. Subsidies, loans and mortgages supply depend on the state of the economy and in societies where favouritism is brazenly practised, it means some people would be disadvantaged, reducing the access to house ownership of such group of people.

13.81 The process of achieving the housing policy is suggested to include:

- i) Plot size per person and per household.
- ii) Housing area (built space) per person and per household.

- iii) Households per dwelling.
- iv) Type of construction and unit cost, including quality of fixtures/finishes (furnishings).
- v) Quality of utilities (water, power, sanitary).
- vi) Sharing of services (W.C., kitchen, water, etc.).
- vii) Quality/quantity of road/pedestrian access.
- viii) Implications of industrialization of building.
- ix) Implications of indigenous materials.
- x) Implications of self-help approaches.
- xi) Implications of subsidized infrastructure.
(IPA, 1979, page 177).

Principal Types of dwelling units:

13.82 As illustrated in Figure 13.9 below, these plot size proposals were applied in the Accelerated Districts and were discovered to be inadequate to Nigerian households. They did not leave enough air circulation between housing units. As a consequence, various changes had been made in the detailed planning of the other districts in Phase 1 Area.

FIGURE 13.9: IPA PRINCIPAL TYPES OF DWELLING UNITS

Housing Type	Sub-Type	Plot Area per household	Built Spaces per household
i Detached/ Semi- detached	A Large	1000 m ²	120-160 m ²
	B Medium	100-800 m ²	70-100 m ²
	C Small	75-100 m ²	30-60 m ²
ii Serviced Land	A Large	1000 m ²	
	B Medium	400	
iii Flats	A Large	80 m ²	100 m ²
	B Medium	60-80 m ²	85-100 m ²
	C Small	35-60 m ²	45-70 m ²
iv Multi Family	A 2-3 Family	120-150	40-75
	B 4- Family	180	60-80
	C Transitional	240	60-80

Source: IPA, 1979, page

FIGURE 13.10: CHANGES IN PLOT AREA PER HOUSEHOLD

A Large	650	-	2700 m ²
B Medium	450	-	1575 m ²
C Small	875		m ²

Source: Author's field survey, 1982.

13.83 The consequences of the increase in plot sizes are two-fold. First, it reduces the cost effectiveness of each plot of land when judged on the number of persons per unit of land and, secondly, it affects the population target of each neighbourhood or district.

13.84 The location of various groups of housing units is left to individual district plans¹ which are not discussed in this thesis.

13.85 Most of these propositions are not really operational planning goals, but the FCDA insists that they have influenced its actions. Efficiency, for example, is interpreted as a cost effective manner by appropriate technology, infrastructure design, selection of building standards and density. Albeit, the planners were very confident that the FCDA would realise the goals, thus no uncertain consequences were anticipated. The next two chapters will deal with risk and uncertainties and real objectives.

1. District plans are transitional plans between the Master Plan (Pilot Plan) and their implementation.

14 RISK AND UNCERTAINTY

The analysis focuses on the sources of uncertainty and why people ignore risk and uncertainty. The sources of uncertainty include individual monopoly of public decision-making, poor data, incomplete knowledge, resource mismanagement, political pressure and value related uncertainties. The reasons for neglect consist of factors of risk and uncertainty of immaturity both in age and mentality, value, time perception, lack of awareness and skill, chance, ambition to enrich oneself and external pressures. In spite of drawbacks, the Bayesian approach is found useful to the assessment of probability of success.

The Definition of Risk and Uncertainty:

14.1 It is rarely, if ever, that human beings are not searching for one thing or the other. They may be searching for a misplaced item of value in the house; for how to get rid of the garbage heaped opposite the green; for the easiest route to the office without being caught in the traffic jams at Road A or Road B; for a solution for a feud between two subordinate officers; or for a solution of tomorrow's problems. All search is beset with uncertainties. Uncertainty is an essential element of the human condition. The decisions we make, the conclusions we reach and the explanations we offer, are usually based on beliefs concerning the probability of uncertain events, be it an outcome to ill-health, the result of an experiment, the future value of an investment or the realization of a population forecast in planning.

14.2 The distinction between uncertainty and risk is essential because a lot of theoretical misunderstanding is created by inconsistent definitions. Friend et al. (1969, page 93) and Hussey (1979, page 66) used uncertainty and risk interchangeably. Cohen and Hansel (1955c) defined risk as a 'subjective probability'. The subjective probability is an aspect of behaviour in contexts where the participant must face hazard and the objective probability of what will actually take place (Cohen, 1962a), "measured by the statistical probability of accidents" (Cohen, 1966a). In both situations, people's estimates of uncertain outcomes involve an assessment of risk - a state of mind of uncertainly

contemplating what may happen (Cohen, 1962a), arising "from subjective uncertainty of expected performance" (Cohen, 1966a). For Cohen, 'risk' is people's estimate of both subjective and objective probabilities. The problem with Cohen and others who use 'subjective probability' to define 'risk', is that 'subjective probability' can be used in a quite different way which does not define 'risk'. Bell (1979, page 187) observed that a person might at one level know (in the relative frequency sense) "that his chances are slim, and at another level wish (in the subjective belief sense) that the chances are fair - one does not exclude the other". Once upon a time I had the horror of guessing at a homicide case by hanging and I noticed scales falling from his eyes. Intuitively, I concluded that although he wished to die, when the death came he might have wished that he could live. This demonstrates the above observation where one can possess two beliefs at the same time. The psychology of their relationship is a complex one and need not bother us here. The important thing to note is "if the chances objectively speaking are slim, and the moment of truth is appearing, this will probably have an impact on the person psychodynamically, that may cause the objective probability estimate to recede even further into the background and the subjective belief or faith to dominate the scene, thus inspiring the daredevils' courage" (Bell, 1979, page 187).

14.3 Boski, attacking Atkinson's theory, said "the precise definition of 'risk'.... is lacking."..... in fact, risk is considered in the contexts where it might be used interchangeably with subjective probability or even with level of task difficulty. Thus we are faced with a notion of risk as a function of one element of the decision situation" (Bell, 1979, page 170).

14.4 Furthermore, Hey (1979, page 23) defined uncertainty as lack of certainty. Two alternative forms of 'lack of certainty' can be distinguished, the first, where the individual feels able to attach probabilities to the various possible "states of the world"¹, the second, where the individual feels unable to do so. Knight (1933) and many others, have differentiated between these two forms by referring to the first as risk and to the second as (pure) uncertainty.

14.5 However, Huang's theory of expected 'risk' (1971a) provides the best definition of 'risk'. She said that 'risk' is another kind of subjectively expected value. The perceived risk of the alternative is then the sum of these risk values weighted by their respective probabilities (Irle (ed.), 1982, page 722).

14.6 In spite of the simplicity of the definition, we will continue to take "uncertainty" to mean lack of certainty and to adopt Huang's definition of "risk" in this analysis. Thus, the human subject serves as a measuring device for the assessment of uncertainty, much as the ruler or the weighing balance is used to measure distance or weight. However, while the weighing balance and the ruler obey fairly simple and well understood principles, the judgemental operations by which people assess uncertainty remain less simple.

14.7 Given the definitions of risk and uncertainty, this chapter will focus on the nature of risk and uncertainty, not only as they relate to the field of planning, but also in other aspects of human behaviour.

1. 'States of the World' conveys the notion of lack of control by the individual.

It examines why people in general tend to ignore evidence of the consequences of uncertainty. Besides gaining a clearer understanding of the nature and people's attitude to risk and uncertainty, we will indicate ways of introducing assessment of uncertainties in the behaviour-environment system.

The Nature of Risk and Uncertainty:

14.8 Various empirical studies have shown how the human behaviour-environment system is tied up with risk and uncertainties. In 1972, Cohen, Chesnick and Haran concluded that the effects of risk and uncertainty "is probably a characteristic feature of human judgement", when they said:

"assume that our experiment stimulates a variety of situations in daily life, as in administration, medical, industrial, military and other professional contexts (planning included) where an individual has to make a number of consecutive choices or decisions with an element of chance entering at each stage we may expect the decision-maker to err in his strategy or judgement by the over-valuation of his chance of making a correct choice at every stage. In general, the more stages, the greater the error of judgement" (Cohen et al., 1972, page 41-46).

14.9 Peter Hall (1980, p. 1) observed that major planning decisions involve an investment (or a set of related investments) costing a great deal of money by almost anybody's standard - at least millions of pounds, dollars or naira, more commonly tens or hundreds or even thousands of millions. This is the kind of decision that should call for an elaborate effort of analysis and evaluation before it is finally made.

14.10 The above exposition of the existence of uncertainties in the behaviour-environment system, is an indication that people differ in the mechanisms they adopt in making choices, the confidence they have in each process of completing a search, in the degree of uncertainty associated with the commencement and subsequent stages of the search process, and in their estimation of the likelihood of success at the end of their search. However, group and individual conditions differ significantly with respect to the degree and kind of judgemental change that occurs. Thus we hypothesize that the effect of uncertainty increases more with an individual's decision than with that of a group.

Sources of Uncertainty

Group influence:

14.11 Moscovici and Zavalloni (1969) said that group discussion increases individuals' commitment and involvement in their original positions, thus causing these to become more extreme and bringing about an increase in the certainty with which they are held. According to this approach, the degree of decision change should depend on the individuals' initial position and reflect (i) group extremization¹, (ii) individual extremization (Kogan and Wallach, 1964), and (iii) polarization², (Lamm and Myers, 1978).

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1. Extremization is defined as movement away from the neutral point, measured in terms of the absolute difference between the group mean and the scale midpoint.
 2. Polarization means the strengthening of the dominant response, as reflected by the shift of the group mean to one end of the scale.

14.12 However, none of these groups showed how to measure when judgements change value as when, for instance, a person makes a more optimistic judgement in the first place, and later, a more pessimistic judgement, in each case with equal distance from the mid-point. There is an assertion that commitment results in an increase in group extremization (Moscovici and Zavalloni, 1969; Moscovici and Lecuyer, 1972; Moscovici, Doise and Dulong, 1972; Rost-Schaude, 1975).

14.13 The idea of abandoning an individual's position as the only decision-maker in group affairs has been demonstrated in various circumstances. For example, Sheth (1973, 1975) confirmed that in commercial business, an individual buying process changes to a joint one if the experienced risk becomes too great and if the interests of others are concerned. Similarly, in planning, corporate planning has been gradually replacing planning through systems analysis or as a mathematically based science... (Hussey et al., 1979, page 16). This actually implies that as the scope of any decision increases, more people are involved in the decision-making who subsequently share in the risk that is involved. This results in risk reduction in relative terms.

14.14 A second school of thought believing in the majority-influence explanation says that group extremization occurs as a result of minority conformity with the majority. This idea has not been empirically demonstrated - rather the converse seems to occur, that is, the minority influence the majority to change their original position following the group discussion (Lamm, Trommsdorff and Rost-Schaude, 1973; Moscovici, 1976).

14.15 The third school of thought involving the leadership influence explanation, assumes that leaders occupying extreme positions can provide options and judgements much more convincingly and with higher certainty than those with moderate positions, thus having greater influence on the other group members in the more extreme positions (Trommsdorff in Irle (ed.), 1982, page 149). The leader's extreme judgement is not expected to change during the course of the group discussions. Empirical results conflict; Stroebe and Fraser's views (1971) support the explanation, whereas those of Lamm and Sauer (1974) do not.

14.16 Finally, the social comparison and value theory holds that group interaction only produces judgement change when it leads group members to perceive that their original positions relied on incorrect or incomplete information, or did not conform to the group's values (Brown, 1965, Pruitt, 1971a,b). The essential features of the theory have received empirical support (Codol, 1976; Lamm and Myers, 1978) but an experiment by Lamm, Trommsdorff and Rost-Schaude (1972) shows no correlation between the perceived difference of oneself and one's fellow group members, with the individual shift occurring after group discussion.

14.17 The above discussions support the hypothesis that changes in judgements following group discussions occur as a result of knowledge induced by certain information stemming from the group discussion. According to the majority, minority leadership influence, social comparison, value and release theories, it is the reception of information about the position of other group members that induces the subject to change to a more extreme position (Irle (ed.), 1982, page 151).

14.18 Assuming a shift only occurs after a clear assessment of the information, there is an argument that uncertainties about the future consequences of the decision taken are reduced. Alternatively, greater uncertainties are expected from decisions emanating from an individual who has not availed himself of information contributed from other members of the group. This we call "ego-uncertainty".

Data:

14.19 The problem of inadequate data as a source of risk affects many aspects of human calculation. Problems arise from the use of sample population. In Tversky's view, when people are asked for the probability that an object A belongs to a class B or that an event A originates from a process B, they typically compare the essential features of A and of B and similarity in the degree to which one is a representative of the other (Tversky, 1974, page 149). The approach leads to serious biases. For instance, in a test, subjects were shown brief personality descriptions of several individuals allegedly sampled at random from a group of professional engineers and lawyers. The probability that a personality description belonged to an engineer rather than a lawyer was measured by assessing the similarity between the description and the stereotype of 'an engineer', while the prior probabilities were not considered. Questions were hardly asked as to whether the engineer was old or young, married or not, had children or not, was a man of high ability and high motivation or not and many other qualities? The description was not intended to convey these pieces of information. In assessing the similarity between a sample population and a population, the influence of the population size is ignored. The

probability of obtaining a deviation of a given magnitude from the population value is assessed by subjects independently of the sample size. As such, there is a common belief that a sample population will be highly representative of its parent population. But it is known statistically that as the sample size increases relative to the size of the parent population, the risk decreases, and vice versa.

14.20 The Census figures from which projections are to be made may have taken place perhaps as many as ten years before the start of a planning study. In areas of rapid change and significant in-migration, it is expected that there would be a problem of intercensal growth rates or under enumeration in earlier censuses, as the case may be. Sometimes these census figures date from upwards of 15 to 20 years before and, with such outdated data, the problem would be complicated. No estimate can take into account all the errors involved and be able to estimate all the risks. Circumstances arise when there is complete absence of census data on the population size, or where the existing population forms such a small proportion of the whole that only a very crude estimate of its number is made. Alternatively, a sample population may be drawn from a different population. This underestimates the impact of specific variables such as the age/sex distribution or the influence of the physical environment on the population. In general, chance is commonly viewed as a self-correcting process where a deviation in one direction induces a deviation in the opposite direction, to restore the equilibrium. In fact, deviations are not "corrected" as chance process unfolds, they are merely diluted (Tversky, 1974, page 151).

14.21 In studies in the medical field, two other problems identified as emanating from data are intrinsic and extrinsic uncertainties. Intrinsic uncertainties are those pertaining to imprecision or ambiguity, or other limitations of the data on which medical judgement is to be based (Cohen, 1972, page 93). For example, in determining blood count, it is found that this varies from one patient to another; one and the same patient will not necessarily yield the same count from one day to the next. Inter- and intra-patient variation will be increased by differences in the size of the blood sample taken, in the technique of sampling or in the instrument employed. The extrinsic uncertainty is often wrongly called the "observer error", which makes its appearance in the interpretations given to a set of data. The interpretation may vary from one assessor to another, while one and the same assessor may on a second occasion give an interpretation which differs from the one he gave on the first. As in the intrinsic uncertainty, the inter- and intra-assessor variation may even apply to the sounds transmitted by a stethoscope (Cohen, 1972, page 93).

14.22 Cohen observed that the medical novice could not only note less than the experienced clinician, but his judgement could be less precise.

14.23 One might expect a comparable functional relationship between a medical novice and a planning novice in his interpretation of demographic, social and physical planning data. It is obvious that most planning consultancy firms leave most of the analytic part of their work with groups of young, inexperienced and often transitory planners. The consequence is that a certain level of risk is introduced by poor interpretation.

Efforts to computerize diagnoses (and planning data) by recorded frequencies in order to eliminate subjective considerations, still leave some questions to be answered - whether and to what extent a computerized system can imitate the intuitive assessments of an experienced clinician or any other professional? It is contended that computerised systems are unable yet to match the 'search' character of diagnostic procedures.

14.24 Equally, a doctor's uncertainties might relate to the treatment he would prescribe. He might be uncertain of not only the dosage of the drug but the side-effects of such a drug. Not only what a man is suffering from, or how he should be treated is subject to uncertainty, but even whether he is alive or dead. "This problem has been posed sharply in relation to decisions on heart donors" (Cohen, 1972, page 93). Wrong interpretation of data increases the problem of risk and affects future actions.

Incomplete knowledge:

14.25 The degree and consequences of uncertainty depends on the knowledge of it. "Knowledge" as defined here is not limited to the acquaintance with particular things, but the knowing should, in fact be true, that no doubt should be felt about its truth and that the belief in it should not have been reached by way of a belief in any false proposition, but should have good inductive grounds. Ayer (1961, page 80) said "In this sense we can claim to know propositions about the existence and properties of material things, and even general propositions, although our perceptions can never afford us a logical guarantee of their truth". An example of the inadequacy of knowledge is nuclear weaponry.

A serious problem with discussion of nuclear weapon arsenals and the deterrence of their use is the lack of real empirical referents or bases. Ikle (1977, page 201) observed, "No other field of human endeavour demands and absolutely compels one to work out successful solutions without obtaining directly relevant experience, without experimenting. There can be no trial and error here, no real learning". Nuclear deterrence relies primarily on enigmatic calculus - "what cannot be calculated, leave out". The missile duel calculations usually ignore fallout; they rarely confront critical details regarding reliability; nor can they fully encompass other nuclear forces, such as bombers, sea base missiles, air destroyer missiles, and their varying interactions. The limitations to the clarification of uncertainty over the impact of nuclear war are overwhelming.

14.26 Another problem here is that nuclear deterrents are designed at the greatest speed, so that one can hardly predict dangers which could arise from split second alert and launching procedures in which there is absolutely no time for correction.

14.27 Situations of maximum uncertainty, such as in the actual use of nuclear deterrents, could call for two approaches - to stop action on the policy, or to find counter-solutions. The former is not probable in the present circumstances and, therefore, counter-solutions become a priority for immediate action. "These actions should be started without delay and simultaneously on many intellectual fronts" (Ikle, 1974, page 202).

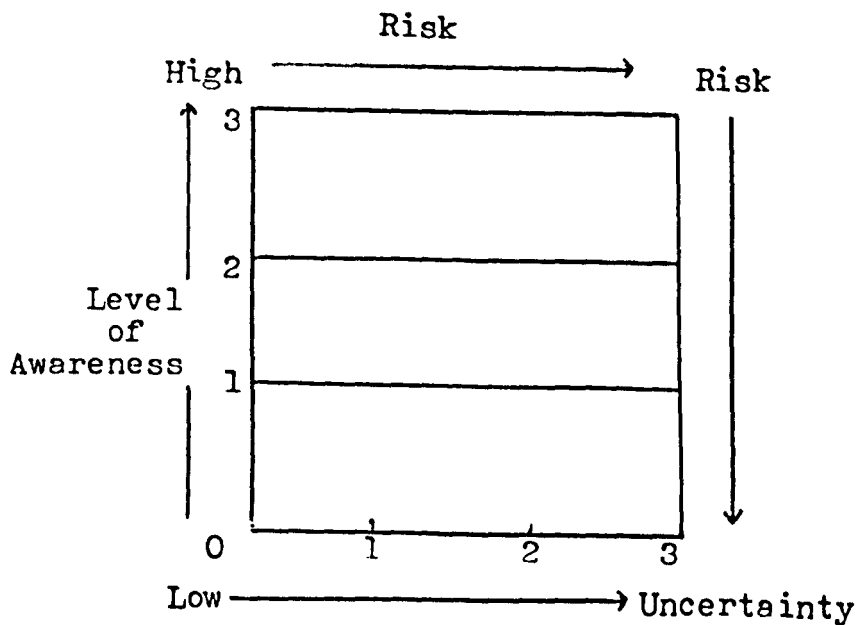
14.28 More commonly than in other areas of affairs, business firms (sellers) and their buyers realise the existence of uncertainties and prepare for them. Firms assume a downward-sloping demand curve - but the actual position is not certain.

14.29 In constructing the market model, Hey (1974b) postulated that all customers indulge in predetermined search; that is, they search k firms, for example, at random (where k is chosen in advance) and then buy from the lowest-price firm that they encounter. In view of this, firms subjectively estimate their demand curve which they update from period to period - in the light of their observed demand. Clearly, two factors are crucial in firms setting their prices, first, the behavioural rules followed by the agents on the two sides of the market (the customer and seller), second, the amount of information available to the agents, and the amount of learning that takes place. In Hey's model (1974b) the firms are assumed to learn through time, whereas the customers are not; for example, low price firms do not get a reputation for being low price firms, thus in each period a consumer search is totally random, uninfluenced by past history. It is hardly surprising that firms turn this to their advantage and end not only charging a monopoly price, but evading the consequences of uncertainty.

14.30 Firms and consumers' attitudes to the market are important; first, both adopt the processes of search and learning to determine their appropriate alternative actions and then, as more information is acquired, behaviour is adjusted to match the individual's values.

14.31 These processes are equally relevant to planning as to other professions. The knowledge of risk and uncertainty is clearly not without fault. In dealing with these elusive problems the use of "awareness" should be preferred to "knowledge". As our awareness increases, uncertainties are subjectively translated into risks as illustrated in Figure 14.1, below. Though the "risk status" of any case does not minimise in practical terms the effect of uncertainty per se, it does, however, bring the reality of the uncertainty to the subject and induces his counter action, or acceptance.

FIGURE 14.1: LEVEL OF AWARENESS AND CORRESPONDING RISK



14.32 We also assume that as the scale of decision increases, the effect of the consequences of uncertainty increases, but the probability of achieving plans' objectives decreases. The reduction of uncertainty in business, according to Sheth, (1973, 1975) includes among other things the involvement of more people in decision-making and an increase in knowledge of the behaviour-environment system. These will perhaps raise the level of probability in relation to the scale of decision.

Resource induced risk:

14.33 Different mental attitudes underlie people's behaviour to risk even when it relates to resource. Some people are cautious of their spending money, while certain ones become cautious when they are on the verge of bankruptcy. Some would even like to risk as bankruptcy looms. Cases of people who win unexpected money from "football pools" or gambling, show that the most natural reaction is to spend money or gamble it away, expecting a similar chance to occur again. Public bodies are not exempted from risks arising from undisciplined spending; for instance, Nigeria only ordered austerity measures in 1982 when it became clear that it was unable to pay for its immediate foreign debts, when the international oil market had become bleak at an earlier date.

Political uncertainty:

14.34 Political uncertainty might arise from a change of political value, or from a change of government, which might be indifferent to actions initiated by the previous government. The change could lead to a deliberate

decision to limit the scope of programmes to a level much below what was planned for initially. Such changes provide opportunities to rescind previous decisions not according with the policies of the new party in power; this may affect programmes started by the previous government.

14.35 Political uncertainty is greatest at the earlier stages of the decision-making process; it is less acceptable at the final stage when a lot of investment has been made. It is also less liable in a one party-system of government than with a multi-party system of government.

14.36 How far the indifference of governments towards projects originated by their predecessors may lead to their not being allowed to continue, has not been demonstrated empirically. A government's attitude is likely to be affected by the scale of investment already made as well as by external pressure. A decision to stop a project may be part of an opposition against whatever the previous government did, or there may be some other reasons that might necessitate a change of values.

14.37 Experience has shown that in many countries operating a federal system, most of the federal government projects are started with imperfect knowledge, for example, the Kainji Dam and its unreliable power supply, the doomed-to-failure communication satellite being constructed by an American firm at Lagos, etc. When the problems of such actions start to emerge, a change of values may be deemed necessary. However, no matter how well conceived by the present government, any

reaction will be badly interpreted by the supporters of the ousted government. Reactions could, even so, be imaginative and perhaps face-up to in-built weaknesses in the programme which the original plan did not foresee. These may include faults in the concept, defects of the legislation or environmental and economic problems, as discussed elsewhere (Chapter 17). Albeit, if the reactions are extended beyond the inbuilt weaknesses in the programme, a different and changing view of local politics can be observed. In the social spectrum, much more information about how to proceed may exist in one area as opposed to another. Many governments are quick to recognise that outcome effectiveness in the short run is not the only criterion for starting a programme. Equity arguments alone may merit at least retaining programmes at present levels.

Value related uncertainty:

14.38 Finally, one can question why decision-makers misinterpret or misimplement decisions which they helped to make, consequently creating uncertain situations. For example, in interpretation of the zoning system in the National Party of Nigeria, Alhaji Tijani, the NPN Chairman for the NTV, said the understanding at the beginning was that the concept of zoning was to be used for the presidential nomination for the NPN for 1978 only. To the contrary, Chuba-Okadigbo (Political Adviser), Joseph Wayas (the Senate President), M.K.O. Abiola (NPN Chairman in Ogun State) and Olusola Saraki (NPN Senate Leader), all agreed that zoning means rotation and does not stop with the 1978 arrangement only (Sunday Concord, August 22, 1982). For the professional policy analyst, armed with a repertoire of multi-disciplinary techniques

for data collection and analysis, the relevant task is to "separate off the real problem from other problems which may be present, then as long as he is given adequate access to facts, he can proceed with confidence to modelling and solution", (Eden and Sims, 1977, 2.1). If he later discovers that the policy he recommended was not implemented, he is likely to attribute this to either (i) the views of 'his' policy-maker being overridden by an ignorant person, or (ii) by some change of circumstances after he made his recommendations, which could not have been envisaged before, or (iii) to duplicity on the part of the policy-maker. While all these points might be vital in themselves, there might be other significant reasons for policies recommended by analysts not being implemented by decision-makers. These have to do with the concern of many analysts to be professional servants of an objective knowledge and rationality, rather than of clients who are human beings and whose policies are formulated and implemented in and around organizations of human beings, among whom there are complex relationships involving power, influence, values and organizational politics. In the individual or group context, knowledge, reality and rationality are not self-evident, but actions depend on the perception of values. People differ in their interpretation of values, because they differ in style or ideology and the matter of style is personal and idiosyncratic. This may help to explain, for example, why an unemployed worker might prefer to stay in the locality in which he is known, rather than going where he could obtain a job, as reason would have been expected of him.

14.39 We conclude that decisions are modified not only by the perceived likelihoods of the relevant features of the events, but also by the nature and source of the

uncertainty; for example, group against individual decision, adequate data to inadequate ones, aversion to ambiguity, over confidence on resource availability, political uncertainty and allowing values to dictate actions. All these uncertainties might not be present in a single decision area, but they are part of human life.

14.40 Friend and Jessop (1969, page 69-97) provide a useful way of categorising uncertainties in planning and related areas, and, for our purpose, the method will be employed when examining possible methods for reducing uncertainty and risk in planning activities. Friend and Jessop (1969) and Hall (1980) identified three groups of uncertainties.

14.41 UE: Uncertainty about the relevant planning environment, that is, everything outside the immediate decision-making system. The uncertainty expresses itself in bad forecasts of behaviour within the system that is being planned for. Planners cannot precisely predict the mass movement behaviour of people, either from one place to another. Neither can they forecast an indefinite flow of funds for plan implementation, etc.

14.42 UR: Uncertainty about decisions in related decision areas, including decisions that are within the decision-making system but relate to areas of discretion beyond the immediate problem. This deals with the behaviour of other individual decision-makers, or these same decision-makers in groups or organizations. They may be in other organizations or in other parts of the same organization. The important point is that they have some area of discretion outside the area of our decision-makers, which makes them to some degree independent

agents; therefore, decision-makers will take account of their actions. In the context of Abuja, these may include decisions and actions by adjoining States' governments, competition from nearby cities and other towns near the Capital Territory, and groups who may play an active part in the realization of the plan objectives; and

14.43 UV: Uncertainty about value judgements, which includes all the problems where information has been assembled, but where the final decision will depend on questions of value. This may include uncertainty over the acceptance of Abuja as a Capital City with standards much higher than in other areas of Nigeria; political trends in the country; the reactions of other tribal or religious groupings towards the Capital City, etc.

14.44 In summary, we have examined six possible sources of uncertainties which include 'data', 'incomplete knowledge', 'resource induced', political and value related uncertainties. Using Friend and Jessop's method it is found that the 'ego' uncertainty and the uncertainty arising from institutional arrangement do not specifically fall within any of the categories; uncertainties of data, incomplete knowledge, resource and political attitudes fall under the UE; finally, resource, political and value related uncertainties fall within the UV. The important thing to note is that Friend and Jessop's approach introduces repetition in analysis of the uncertainties. Many uncertainties may equally well be located within two categories. Although Friend and Jessop's model has this weakness, as have the Leopold Matrix and other interaction matrix models, it provides an organising procedure for the analysis of uncertainties (Chapter 17).

Why people ignore risk and uncertainties

14.45 It might be said that there is a negative relationship between the scale of uncertainty and human attitudes towards it. People tend to ignore evidence of the consequences of uncertainty, to decline to assess its scale and to be unwilling to categorise and anticipate it.

14.46 Cohen and others identified age as one of the determinants of subjects' attitude towards uncertainty. In "the confidence of a subject in the accuracy of his guess", (Cohen, Chesnick and Haran, 1971; 1972) concluded that (a) No children below the age of 7 years, and few at that age, adopted a search strategy involving classification, grouping or set of potential locations of the target. They added that even a young child will not make an exhaustive exploration of every place in which an object may be hidden (Cohen et al., 1968, p. 322-343); (b) Cohen et al., (1969, page 129-144) on the importance of "subjective information" concluded that subjects between 7 and 10 years showed a progressive improvement in their mental efficiency" in the performance of search tasks; (c) That in the multi-stage search tasks, the compound mathematical probabilities of location of target of the search were almost invariably less than the overall subjective or psychological probabilities of success at the task as seen by the subjects. People performed better than was mathematically probable (Cohen, Chesnick and Haran, 1971, 1972). This implies that as people develop in age and experience, they acquire the ability to make subconscious approaches to a search, designing it so as to make discovery of the object searched for more probable than by employing a random approach. Even at a mature age, risk-taking can depend on factors other than ignorance induced by age. People take risks

because of what they value, whether it may be the ambition to get rich, possess a woman or acquire education, which acts as a push factor towards the subjective goal. For instance, why does a robber continue in his criminal act when he is faced with the uncertainty, but possibility of detection, capture and punishment. It can be noted that the crime's "severity is not measured by statistics based on the population of offenders, any more than a patient's uncertainty is measured by morbidity statistics" (Cohen, 1972, 109-120). The robber might be ignorant of the existence of these statistics or - if they are available to him - he might misinterpret them and might also think that they were not applicable to him. The law-enforcement agency might see it differently. The Lord Chancellor, Lord Gardiner, addressing a meeting of magistrates, said that "if you committed robbery in London today, the chances are four to one that you would not get caught". The odds, he said, against getting caught for housebreaking were six to one, for larceny, ten to one; and for stealing from cars, thirteen to one, and "it was the certainty of being caught, and not the severity of punishing, that was the main deterrent to crime. If all punishments were abolished for murder, there would hardly be any increase in crime" (Guardian, 22 April, 1968).

14.47 This view is supported by the rate of highway robbery cases in Nigeria. The effect of the public execution of highway robbers between 1970 and 1975 was short-lived, because the rate increased within a few months after the initial impact. The abrogation of the Decree later because of public outcry did not change the situation, at least, in reciprocity for public sympathy. This view is subject to police record confirmation.

There is the argument, however, that if a man knows that he would not be punished, why should he care very much whether he was caught or not? The case is not a simple one to explain. But if and when punishments become more severe, as with the public execution of highway robbers and the imprisonment of Indian Hemp smokers in Nigeria in the 1970s, the potential offender is apt to harden in relation to the penalty and even public sympathisers will speak against it. We may agree that belief in luck may influence not only the behaviour of the criminals, but also man's attitude to taking action even though he is aware of the consequences.

14.48 The time element plays an important part in what people do. Our temporal horizon seems to become less real - as judged by its impact on present decision-making - as it recedes into the subjective future (Cohen, 1972, page 114). In the psychological context, an offender against the law takes the apparent remoteness in time of a possible penalty as lessening any deterrent effect it might have on him. However, within him there is a complex of uncertainties - uncertainty of detection, uncertainty of punishment, and uncertainty of severity of the penalty. The interaction of these in the offender is difficult to analyse, but assuming that he assigns greater probability to punishment if caught, he may still choose to commit the offence when he relates the time of punishment to the time of theft. The temporal element also influences public policies. Long-term plans involve uncertainties of finance, political stability, administrative risk and others, yet Governments may prefer them to short-term plans in certain circumstances. The argument against short-term horizons is that they are out-of-synchronisation with the horizon of development

investment. Governments more often than not prepare budgets of hundreds, thousands of million and even billions of pounds, without having such an amount of money in the Treasury, but on the assumption that the money would be available before the target period.

14.49 Long term horizon estimates involve various statistics relating to GNP, GDP, rate of interest, rate of demographic growth, etc. The continued use of these fundamental statistics and rules such as prior probability, sample size or sampling variability, shows that only a few people discover the weaknesses of these heuristics on their own. The failure to develop valid statistical intuition is probably due to the fact that events are not normally coded or categorised, in a way that is conducive to the learning of statistical rules. Planners and other professionals are from time to time exposed to various examples of many of these sample populations as bases for policy formulation, but they rarely compare the statistical qualities of the data before use. Often a clear observation may reveal that population statistics meant to relate to a particular area might not after all relate to the same time. The lack of appropriate coding also explains why people fail to detect the biases in their own judgements. One could learn whether one's probability judgements are externally calibrated by keeping a tally of the proportion of events that actually occur - among those to which the probability is assigned. It is not usual, however, to group events by their judged probability. In the absence of appropriate grouping of events, the only available feedback is whether individual events did or did not occur. People also fail to recapitulate that judgemental operations are repetitive, even when they apply to unique events. For example, lessons can be learnt from past development of new towns

in order to model the development of later ones. Failure to build from previous experience is a major constraint for effective learning.

14.50 As has been noted already, inadequate knowledge does not prevent people from choosing risky alternatives; rather, choice often depends on the value or utility¹ placed on alternative choices. But studies by Rapoport and Wallsten (1972); Slovic et al. (1977) said that people often showed systematic departures from what one should expect on the basis of the theory of expected utility (Irle (ed.) 1982, page 722). These two views can be reconciled from Coombs' proposition of portfolio theory² which assumes that for each expected value, an individual has an ideal level of risk at which his/her preference is maximal (Irle, ed., 1982, page 722).

14.51 Evidence from psychological studies indicates that people often prefer to bet on an uncertain outcome involving an element of skill, rather than on an outcome that depends on chance alone (Cohen, Dearnaley and Hansel, 1958a; 1958b) and even when the two events are judged equally probable (Cohen, Dearnaley and Hansel, 1958a). In further research, it was found that subjective probability of success might be greater with two sources of uncertainty than with one (Bell, 1979, page 10). This implies that people can choose to ignore the consequences of uncertainty if they believe that they have the skill to defeat chance.

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1. Utilitarian yardstick for deciding between alternative courses of action is the consideration for the greatest happiness of the greatest number, and conduct is judged morally according to its effects on the balance of general human happiness (McConnell, 1981, page 147).
 2. The Portfolio theory is concerned with mixing courses of action and involves a selection process. Combining courses of action especially makes sense if risk is involved (Irle ed., 1982, p. 663).

14.52 Finally, we assume that external pressures contribute to the reasons why policy implementers ignore the consequences of uncertainty. Two sources of pressure are identified, first, the desire to maximise one's material welfare and, second, the desire to satisfy the group's value.

14.53 In the Nigerian federal system, the tenure of office of any political office holder is well known. The desire of power elites while in office is to maximise their material welfare. This drives them to accumulate and expand their enterprises while in office. Consequently, they exert all sorts of pressure in order to achieve their ambition, for example, contracts for projects are awarded even without evaluating the cost-benefits of the projects; this normally allows the power elite to spend the money budgeted for that project or to get some 'kick backs'¹ from the contractors afterwards.

14.54 There is no way in which justification for such expenses can be sought while the initiators are still in office, either because they would not allow such an assessment, or because the implementation of such capital projects lasts for a longer period than the initiators will normally stay in office.

14.55 Similarly, there is pressure emanating from the desire of the power elites to satisfy the interests of those who elected them to office. The major concern of any political elite is to remain in office and, to do this, they have to influence their electors by assuring that

1. 'Kick backs' or 'back scratching' has now been given a more legitimate designation - reciprocity.

federal projects are located within their constituencies, whether such locations satisfy locational criteria or not, and, also, by seeing to it that federal government contracts are made to their people and approved on time. These 'tribal leaders' are influential in political parties. They probably constitute the majority of the trustees of colleges, universities and federal agencies. As the political scene shifts from local to state and national affairs, they have increasing power because of such factors as the increasing interdependence and complexity of the economy, the geographical and vertical mobility of the population and the increasing power of the politicians. Federal agencies predominantly controlled by these elites may not serve the interest of all sections of the country. Though each agency can be said to have checks and balances, regulations are primarily aimed at increasing the predictability and control of people and activities within the agencies. Only when the agencies are quite new or when serious scandals occur, do they seem vigorous in attempts to regulate in the public interest.

14.56 Those who would like to act rationally and avoid uncertainties find it difficult to function under such political pressure. Crucial to the realization of a major development programme is the political and social structure of the government in power. This is likely to continue if control of federal projects is left with political elites.

14.57 The contention is that there is a degree of risk or uncertainty whose consequences are beyond the acceptable level of tolerance, given that uncertainties and risk surround man's behaviour-environment system and that

people tend to ignore them in their day to day activities, for reasons which may include the immaturity of the subject, the values a subject places on his decisions, time perception, enjoyment from exercising one's skill, belief in luck, personal desire for gain or various external pressures.

Assessing the Capital Plans' assumptions:

14.58 The assessment of probabilities of Capital city plans is a complex issue. It involves both the estimation of the likelihood of discrete variables - such as if a population of 500 is expected to immigrate to the city, the proportion possessing some attribute must be a multiple of $\frac{1}{500}$ - and of continuous random variables - for example, the probability that a district within the plan area will be developed or even that the development of the city will continue to be accorded a political support - might be any number between zero and unity. In such circumstances, it is the assessor who will choose whether to handle the discretised variables or the continuous variables or both. Though the task is onerous, the overall assessment is essential.

14.59 The Bayesian approach is appropriate for both variables. However, Willemain (1980, page 91) said that though the approach deals with the estimation of both problems the calculations are somehow easier for the problem of estimating a probability, since the likelihood function is the binomial probability distribution, not the hypergeometric.

14.60 The Bayesian approach assumes:

- (a) each case will be either a success or a failure;
- (b) all cases are identical in that they have the same underlying probability of success (which we seek to estimate) and;
- (c) the outcome of each case is independent of the outcome of all the other cases.

The first assumption implies that the assessor has to indicate the criterion for success; for instance, in a neighbourhood where it is the responsibility of the central government to provide all the infrastructural services, the question should be what would determine success of the planning activity, a 100 per cent, 50 per cent or 40 per cent completion of the provision of facilities? The assessor has to be unambiguous about the criterion.

14.61 The second assumption has to do with ignoring the individual attributes of each assumption which would make the client implement A instead of B, for the very fact that the plan has been accepted and approved by the client shows that given the necessary resources, all the objectives are implementable. In this case, our data should be limited to the programmes of the Capital city for which the central government is responsible. Even at that, the assessor can minimise the variability of the cases by choosing the pertinent ones.

14.62 The third assumption is very difficult to operationalise in view of the interdependency between objectives and policies. In the Bayesian approach, the oneness of all the phenomena has to be established.

14.63 We require to estimate the probabilities of success (or failure) of the plan assumptions and our procedure should include:

(i) a probability distribution which will express the relative degree of confidence in each possible answer between the values of 0 and 1.0;

(ii) background empirical knowledge of the decision-making environment (prior expectations). The assessor can devise a scoring procedure to express his experience; (Appendix 14-A).

(iii) a sample of trials in which the outcome of each case was recorded as a success or a failure. These trials should be independent of the decision-making environment, but they must be not sufficiently alike that they share a common likelihood of success as we want to estimate. In our case, this would entail data from at least six Capital Cities. The sample results are the total number of successes and failures in the sample based on the criteria of success or failure. Suppose, for example, that we wish to estimate the probability (P) that the development of a Capital City will achieve a functional efficiency, based on the city layout plan. A sample of 6 capital cities shows that successful ones (S) are 4 and those that failed (F) are 2. Thus the likelihood that we shall expect the same occurrence is:

$$\begin{aligned} \text{Likelihood } [S = 4, F = 2/P] &= \binom{4+2}{4} P^4 (1-P)^2 \\ &= 15 P^4 (1-P)^2 \end{aligned}$$

We may then use Baye's rule to combine both our background feelings about the answer and the results of our sample of cases. We express the answer in the form of the

posterior distribution, thus:

$$\text{Posterior [probability|data]} = \text{Likelihood [data|probability]} \times \text{Prior [probability]} .$$

becomes

$$\begin{aligned} \text{Posterior [P|data]} &\propto p^S \text{ data} (1-p)^{F \text{ data}} \times p^S \text{ prior} (1-p)^{F \text{ prior}} \\ &\propto p^S \text{ data} + S \text{ prior} (1-p)^{F \text{ data} + F \text{ prior}} \\ &\propto p^S \text{ post} (1-p)^{F \text{ post}} \end{aligned}$$

14.64 The vertical bar |, read "given" to separate the value of the random variable from the conditioning¹ information, whereas \propto "alpha" used as the conditional probability.

14.65 If there is lack of the adequate prior biases, the alternative procedure is to rely only on the sample results to determine the posterior distribution. More information on the computation of this can be obtained from Willemain (1980).

14.66 Beta prior distribution offers an alternative technique. When the beta prior is multiplied by the binominal likelihood function, it emerges as another beta distribution for the posterior. The beta has the advantage of using two parameters - $[p^S (1-p)^F]$ although it can use a coefficient, but this is not always very important.

1. Conditional information are bits of additional information, for example, additional information on a homeowner may include: What city? What neighbourhood? What age and race of the homeowner? (Willemain, 1980, page 15).

The procedure is:

(i) conceive the prior distribution as if arising from empirical success and failures, in place of the sample data requirement in the Bayesian approach; then express the posterior in the same terms. The two parameters are designated S^{prior} and F^{prior} of beta distribution. They are defined by the formula:

$$f(P/S, F) = \frac{(S + F + 1)!}{S! F!} P^S (1-P)^F$$

(ii) the standard deviation of beta distribution is:

$$\sqrt{\frac{(S + 1)(F + 1)}{(S + F + 2)^2 (S + F + 3)}}$$

P is a variable between 0 and 1.0, which represents the probability of an objective being achieved.

(iii) the key part of the formula is $P^S (1-P)^F$; the other terms are just normalising constants, required to make the sum of the probabilities equal to unity in the case of discretised binominal and to make the area under the distribution equal to unity in the case of the continuous beta. (Willemain, 1980, page 59).

(iv) the use of a graph helps to indicate the level of confidence about the predicted probability of success.

(v) the difference between the binominal and beta relates to 'what is known' and 'what is not known'. For the binominal, the probability P is known and the number of successes and failures in a given set of trials - new capital cities, for example - are unknown. With beta, the number of successes and failures are known, while the probability P is not known. What we have to do in using beta distribution, is to use the table of the binominal

distribution as shown in Appendix 14-B to calculate the value of the probability derived through beta distribution, by reading it as if the parameter P were unknown;

(vi) finally, the assessor has to select the appropriate probability level before the reading.

14.67 It is necessary to note in the interpretation of the values derived from either of the approaches that high values - for instance 0.8 - may not be indicative of a high probability of success. For instance, you may doubt yourself if an objective had indicated a high probability of success and you invested your money because of it, and later you experienced some failure. All the estimate does is to tell you which outcome will be the more surprising. In the case of a new Capital city development, it might be that exactly 8 of 10 ventures would succeed. But we are dealing with one and it is therefore more vulnerable to surprise, albeit that those objectives/assumptions whose realization is highly probable will be recommended first to the decision-makers for priority implementation.

14.68 Much as we might recommend the use of Bayesian and Beta approaches to assess the probabilities of success of plans' actions, they have their own drawbacks. It sometimes proves difficult to meet up with the data requirements of the Bayesian approach. Certain data may be easily collected, such as a population's age and sex, labour force and GDP. They are often reported in documents, whereas activity limitation is more complex and expensive to measure and is not commonly available for local population. Little attention which has been paid to study of uncertainties relative to Capital cities

development, planners accordingly losing sight of the type of information to generate and collate. This situation will usually affect the reliability of the criteria to consider as relevant.

14.69 A glaring weakness of the Bayesian approach is its attempt to isolate specific attributes of policy objectives. Governments have their priorities which can enhance or delay the probability of success of policy. The argument is that such prioritised areas should be noted in the assessment of probabilities. The principal criticism is the problem of specifying a prior distribution. The problem is particularly acute when a person has little or no prior information. Bayesian procedures are, however, always admissible, given a proper prior distribution.

14.70 Given the problem of data, we have chosen to use analytical techniques in this research to organise the information available, hoping that explicit consideration of uncertainties would sharpen and focus our perception of risk.

CONCLUSION:

14.71 Risk and uncertainty underlie most of the human environment behaviour. Given that it is surprising that little attention has been given to assessing uncertain quantities in decision-making, this apparent neglect in the study of risk and uncertainty, especially in planning, has led to the search for the sources of and methodology for assessing them. Uncertainty is known to result more from decisions made by individuals than from those made by a group of people or democratically made decisions; more from forecasts based on out-dated data than from reliable ones; from incomplete knowledge than from an increased awareness, and it results from political pressures, individual values and institutional arrangement.

Because uncertainties underlie every aspect of human life, they have ceased to become a preserve of a particular discipline. Therefore, uncertainty can be studied through many disciplines. Among the important ones are psychology, medicine, military science, business and planning. Each contributes to a better understanding of risk and uncertainty. Psychologists have studied how individuals react mentally in the assessment of uncertain situations. In the field of medicine, uncertain developments do not only lead to more research but confirm that human knowledge about uncertain quantities is still limited. Nuclear capabilities have shown how man has found himself incapable of controlling and predicting what he had created. The business world has shown a lot of ingenuity through the processes of search and learning to determine future prices of goods. Planning has only made a marginal contribution to the study of uncertainty. Not much has been done in the area of developing a methodology for the assessment of uncertainties underlying capital city plans.

14.72 The current practice in the assessment of uncertain quantity in capital projects has been to assign a point estimate, for example, the probability of a new town achieving a social balance is $P = 3$. Such estimate contains enough information for many applications and is generally sufficient as an input to decision aid methodologies. In evaluating the goodness of a probability estimate, a point estimation is insufficient, because there is no information on how sure an assessor is about his or her estimate. The assessment cannot be replicated by another person nor can the same assessor repeat the same estimate if he or she is given a second chance.

14.73 The Bayesian approach offers a technique for estimating uncertain occurrences and it could be used for the estimation of probabilities of achieving the objectives of Capital Plans. The Bayesian approach depends on the combination of the prior expectations about the answer based on empirical knowledge and a set of sample data. These meant a sample of trials in which the outcome of each case was recorded as a success or failure.

14.74 However, the general lack of attention in this aspect of planning, coupled with no agreed strategy for coding available information from capital cities, creates a difficulty for the full application of the methodology. There is need for a well codified information showing successes and failures of each capital plan. Another problem is that there is no guarantee that published information is accurate. If improvements can be provided in these areas, future estimation of probabilities of achieving plan's objectives can be made.

14.75 An alternative approach is the use of beta distribution. Estimation with beta approach can depend on prior expectations as if risen from a given set of empirical successes and failures. The beta procedure is demonstrated in Appendix 14.1 to provide a basis for future research. It could not be adopted in the present assessment of Capital Plans for Abuja because the development so far (1982) was not enough to provide justifiable prior expectations.

14.76 Finally, the study of uncertainties and risk underlying the planning and implementation of Capital City Plans is in its infancy and far more research is needed into the alternative techniques - Bayesian and beta approaches. Capital cities are complex systems and complex inter-relationships are required to be determined.

15 THE ASSUMPTIONS UNDERLYING
THE CAPITAL PLANS

Deductive judgements of the probability of realisation of the NFCC and FCT plans' assumptions have been based on analysis of the Nigerian economic and socio-political environment and on the empirical experience of the author. Like other heuristics, a deductive approach has its own weaknesses; for example, changing circumstances and differences in values might make future replication difficult. But it tries to avoid an overestimation of the probabilities of highly available or salient events and overconfidence in the assessment of subjective probability distributions. The plans' proposals are found to be vulnerable to uncertainties and, in many cases, only political intervention can assure their success.

15.1 Recent changes at Abuja and reviews of the IPA Master Plan for Abuja and Doxiadis Associates' Regional Plan for the FCT have shown that it would amount to naivety to continue to make the World believe that all is well with the two plans. People are entitled to have different judgements about the probability of the plans' success. Many previous plans in Nigeria have ended up either being partially implemented or completely abandoned, because they were difficult to implement. For example, Lagos satellite new towns have not significantly achieved their stated objectives to decongest the city (Okpara, 1979, page 69). The Ajoda new town is almost abandoned because the proposals are over ambitious and the planners failed to anticipate future developments in the region. The major reason for such an unfortunate situation is that the planners disregarded predictable uncertainties that subsequently affected planning decisions.

15.2 Plans per se do not create uncertainties, but they must take note of them; a principal problem that faces planners is lack of appropriate techniques for the assessment of uncertainties surrounding any plan proposals. As a consequence, the assessment of uncertainties is often based on intuitive judgements of human beings. This leads to severe and systematic errors. Moreover, failure to secure an appropriate model may not be considered as a sufficient reason for planners to close their eyes against uncertainties, even the most glaring ones. In most circumstances, the use of an appropriate model might not provide a reliable estimation without a background knowledge of the planning environment. Further research along these lines as suggested in Chapter 14 should be encouraged.

15.3 In this chapter, efforts are made to assess the uncertainties surrounding the IPA and DA plans' objectives and assumptions using the deductive approach. This kind of study is important because it provides a means by which advice can precede actual experience, whereas at present current planning practice largely depends on retrospective learning. Deriving from the preceding chapters, the prime objectives and assumptions underlying the plans for Abuja and the Federal Capital Region are outlined below.

IPA AND DA PLANS' OBJECTIVES AND ASSUMPTIONS

15.4 Objectives:

- i Developing an environment in which the Federal Government can operate efficiently.
 - (a) An urban layout to channel inputs in the machinery of government.
 - (b) Building legislative buildings, departments, hotels, meeting places and providing physical accommodation for an efficient civil service.
- ii Building a New Federal Capital which will enhance national unity.
 - (c) Emphasis on co-habitation of all ethnic groups in Abuja.
 - (d) Land distribution to all persons irrespective of place of origin, class or religion.
 - (e) Equitable representation of all States in the administration.
- iii Building an effective management structure.
 - (f) Creation of an administrative system to develop and administer the FCT programmes instead of depending on the traditional civil service.

- (g) Coordination with Federal and State Ministries and departments.
- (h) Reflecting the federal character in the appointment of staff.
- (i) Creation of a Joint Planning Unit to be responsible for planning problems emerging between the FCT and adjoining States.

iv Utilizing both public and private resources.

- (j) Emphasis on the Federal Government grant and fund allocations.
- (k) Emphasis on private investment by employing incentives.
- (l) Emphasis on recruitment of staff from local and foreign sources.

v Population distribution.

- (m) Concentrate population 1.6 million in the Capital by year 2000.
- (n) Disperse 1.8 million population to the rest of the FCT simultaneously.

vi Promoting rural economy.

- (p) Promote agriculture, forestry, etc.
- (q) Limited mineral prospection.
- (r) Selective conservation.

vii Industrial and Employment investment.

- (s) Discourage heavy industries in the NFCC.
- (t) Encourage widespread diversification of industrial types in the FCT.

viii Housing

- (u) Emphasis on private housing and selective public actions.
- (v) Emphasis on subsidies and housing loans.

ix Settlement Pattern

- (w) Creation of a Federal Capital City at Abuja, 27 new satellite towns and 207 rural areas in the FCT in the year 2000 simultaneously.

15.5 Assumptions:i Population

- (a) Assume that 1,347,000 immigrants will be diverted from Lagos and other parts of the country.

ii Employment

- (b) Create 43,700 manufacturing jobs in the NFCC and 161,350 manufacturing jobs in the FCT simultaneously.
- (c) Create 169,000 jobs in the primary sector in the FCT in 2000.

iii Housing

- (d) Provide 266,667 dwelling units in the NFCC and 478,200 dwelling units in the FCT in 2000 simultaneously.

15.6 An analysis of the plans' objectives and assumptions showed that they can further be categorised into those that are meant for the achievement of an acknowledged Federal Capital and others that are related to "good planning practice". The first group of objectives/

assumptions includes 15.4 - i (a) to i (b) - these deal with an efficient environment conducive to good administration - ii (c) to ii (e) and iii (h) deal with ethnic mix in Abuja and the FCT; 15.4 iv (j) to iv (l) deal with resources; v (m) to v (n) and 15.5 i (a) are concerned with the major size of the Capital. All these have political origin. The second category includes 15.4 iii (f), iii (g) and iii (i), 15.4 vi to 15.4 ix; 15.5 - ii (b) and ii (c) and 15.5 iii (d) relate to 'good practice'. They deal principally with the socio-economic aspects of the Capital and had their origin from the planners of the Capital.

Statement of uncertainties in the Capital Plans:

15.7 Subjects react when they are faced with problems. Thus the Federal Government and Lagos State Government of Nigeria reacted when they felt overwhelmed by the problems of Lagos City, and concluded that in such an unpleasant environment good government would be impossible. This was one of the justifications to relocate the seat of Federal Government in Abuja to enable it to operate most efficiently. It implied producing an urban layout within Abuja that would facilitate the channelling of inputs into the machinery of government and, also, to ease the transmission and implementation of decisions of the federal government by agencies or individuals affected by them.

15.8 The physical environment of the Capital should expedite contact between different arms of government and between them and non governmental agencies and individuals. It means locating the activities of the government close together to achieve a compact administrative centre. To achieve these objectives, the FCDA

contracted foreign experts to translate the objectives to reality. The completion of the layout plan does not, however, assure the success of the objectives. The contention is that since human beings still remain the measurement tool, it is difficult to judge whether the objectives are achieved or not by more than mere physical yardsticks even if effective administration also means providing physical accommodation for an efficient civil service, including offices, housing, urban services, transportation and communication networks. These are not limited to the city alone but to the whole territory. The financial burden is the Federal Government's.

15.9 The first uncertainty that can be identified relative to Abuja urban layout deals with a priori knowledge of the designer's capability to produce a functional layout for the Federal Capital which would be free from problems associated with inefficiency. It is beyond human power to predict exactly how various elements of the Capital or the Federal Territory will operate in the future to produce efficiency. The behaviour of cities - like people - is difficult to determine. It might require the building of a greater or lesser number of roads, a more or less number of houses; nobody is now in the position to know precisely. Already, the realization of 'efficiency' has been questioned in the NFCC and the subsidiary new towns in the FCT, when both the FCDA and the staff of the Federal Ministries who were transferred from Lagos to Abuja could not be housed comfortably. Many FCDA officials still cover 45 kilometres to work every working day - even though it is perhaps faster to do that distance at Abuja than in Lagos. Officials transferred from Lagos have frequently had to accept forced holidays when they

arrived at Abuja and found no accommodation for them. It was not uncommon to find some of the offices of the Federal Ministries empty because their officials were absent. Could efficiency be achieved in the face of such circumstances?

15.10 The Federal Government requires legislative buildings, departments, hotels, meeting places and physical accommodation for the efficient civil service. Transportation and communication networks are equally essential not only to the Capital City and the satellite new towns, but to the whole country.

15.11 The development of capital cities is expensive, particularly the provision of their infrastructure. The uncertainty, therefore, relates to finance to implement the layout plan, building, transportation and communication proposals. It might be that to attempt to create a system that would enhance efficiency, more costs would be incurred than the implementing agency could afford. One could argue for a ceiling of costs to be fixed, but when policies are constrained there is the danger of uncertainties. If the Federal Government cannot afford the construction of structures capable of enhancing efficiency, it means that the purpose of the layout plan is defeated.

15.12 Much scepticism had been expressed already on the costs and success of the massive developments at Abuja. The Sunday Sketch (of 6th December, 1981, page 5) put the following questions:

"Wasn't the whole idea of Abuja given serious thought before work began? Do those Nigerians holding the Abuja purse strings see their job as one of liberally, and without much care,

shovelling out millions of naira to any and everybody who sticks out his hand? Now the costs in Abuja have literally run away, is there still time for somebody to put his powerful foot down and rescue the situation in accordance with the laid down policies and regulations of the Federal Government?".

15.13 The Sunday Tribune (of November 29, 1981, pages 8 and 9) in its article titled "Abuja, Financial wreck of the Second Republic", Professor Awojobi said that he had chosen the title because "there is no known costed estimate of Abuja project but varying wild guesses ranging from 11 billion naira in 1986 to 50 billion naira by 2000 AD".

15.14 In view of the current need for financial restraint, criticism has been directed at the high level of expenditure and the suggestion has been made that with less ambitious programmes cost might also be reduced. Partly this is occurring naturally when people cannot relate on the grounds of what had been alleged to have been spent already. However, there are arguments against reduction in standards, since Abuja will stand for what Nigeria should be in future.

15.15 The principal political assumption was that the building of Abuja would enhance national unity. This objective became the propulsive mechanism for building the NFCC and FCT. It appears not to have been seen as necessary to test the assumption when the NFCC was an act of faith. Judging from the terms of reference (Chapter 12 above) given to the Aguda Panel to advise on the location of the Federal Capital, we cannot find a test as to whether or not national unity could be

achieved by locating at Abuja. The Panel's task was to locate the Federal Capital and not to evaluate the objective. It is uncertain whether the objective can be achieved after evaluation, but the question is whether all the alternative courses of action were exhausted before a choice of policy was made? In the political context, areas of search in decision-making should be broadened to include various views and considerations instead of viewing decision-making narrowly. There should be emphasis on futuristic thinking. Policy analysts seek knowledge and opportunities for coping with an uncertain future. Assuming we have two choices for development of the Federal Capital (Abuja C_1 and Lagos C_2). Suppose C_1 is risky (that is development and national unification) and the outcome is uncertain, but C_2 (that is, solving the existing urban problems of Lagos) outcome is certain. If a decision-maker A is indifferent between C_1 and C_2 then if decision-maker B prefers C_2 (the certainty) to C_1 (the risky choice) it seems natural to say that B is more risk-averse than A. The determination of which of the choices is more risky than the other would require evaluation of costs and benefits and probabilities of achievement for each alternative choice. The one whose probabilities were less would naturally be regarded as more risky than the other. What matters in choice making is which problems in the two cases are anticipated and are measurable and which are not.

15.16 Following a simple analysis of this kind, the Federal Government could have continued with the redevelopment of Lagos, if it had considered the risks of Abuja to be excessive. However, the identification of needs does not spring automatically from statistical

analysis. The factors to be analysed have to be determined; what is analysed depends upon what is perceived as a problem. Need depends upon the values by which the analysis is interpreted. Objectives do not emerge from self-identified problems alone but from the values held by the decision-makers. Critical choices have to be made at many points in the process of policy planning. Values are implicit in choice-making. It is the function of politics to resolve these choices.

15.17 In choosing between Lagos and Abuja as the seat of the Government, the decision was a political issue. The issues by which the decision has to be explained are political issues and these are automatically the function of the government. Certain alternatives (Section 11.2 above) were eliminated either by the Aguda Panel or by the Military Government which set up the Panel, because they were alternatives outside the realm of political possibility. Certain issues were explored, some were accepted and some disregarded as, for instance, the water problem at Abuja and the presence of disease vectors, in some cases, because it was politically important to do so. Agreeing with Stewart (1971, page 124) that while policy planning must adjust to political reality, it may itself modify that reality. If the political view is extended beyond the conflict in the Executive Office of the President and the National Assembly to include pressure groups, a difference and a change in priority in politics can be observed. Political decisions become a binding instrument when divisive factors in national life, such as tribalism, favouritism and religious discrimination are reduced. Any factor or act that can reduce their effects would enhance national unity.

15.18 An uncertainty surrounds the interpretation of 'national unity' by individuals and by sections of the Nigerian community. In many countries, decision-makers and planners see themselves as representing all people's interests. This is not always the case in Nigeria or in similar societies where tribalism has displaced the position of nationalism. To many Nigerians who do not sympathise with national unity, Abuja is seen as a time-bomb which they expect to explode some day and expose the weaknesses of such hopes of unification. However, events at Abuja - especially in regard to financial mismanagement - do not show any consistent pattern of linkages between events and tribes. But it is believed that those who do not conceive Abuja the way the Federal Government does are either working against it or remain indifferent. The issue of national unity is a contentious one, far too complex to discuss exhaustively.

15.19 The issue of co-habitation might not be seen as a problem by those who dominate others or who have resigned their fate to the situation in which they might find themselves. But it is a problem to decision-makers as well as those who are sensitive to unequal distribution of privilege among ethnic and cultural groups in Nigeria and who think of an acceptable way of reducing it. Probably the best attitude before you read this short paragraph is to detach yourself for the moment as far as you can from your position within your ethnic or cultural group and from the passions which go with that position; but that you keep with you all the insight and sensitivity which you have just because you have lived and do live your life within such a group and in a world in which members of nearly all groups are conscious either of strangers all about them or of being themselves strangers.

15.20 The massacre of Igbos in Northern Nigeria and some parts of Yorubaland in 1966 forced these problems upon attention. Many Nigerians, not only Igbos, have been affected personally or through their kin or friends by the Northern massacre in 1966 and the arson in Kano and Bornu in 1982 by Moslem fanatical religious groups. Others, who did not know any of the victims personally, are nevertheless filled with anxiety lest the disease repeat elsewhere and spread. Some were roused either to a sense of guilt for the racial persecutions and injustices which they had passively condoned or actively supported in some of the cities and federal government establishments, or to fear the vengeance which might one day visit upon them. Discrimination has been planted too early in the administration and implementation of Abuja programmes. The dominant Moslem Hausa-Fulani group simply extended its own 'ready-made' social framework over other groups without significant adjustment. This is common in many spheres, such as in administration, appointment to top posts and allocation of land uses, especially for religious purposes. Such an institutional arrangement is enough of an indicator to people that uncertainty surrounds the objective of co-habitation.

15.21 Arising from the objective of co-habitation is another which relates to land allocation to persons irrespective of place of origin, class or religion. Legally, every Nigerian is entitled to a plot of land at Abuja if he had satisfied all the requirements during his application. To be considered in the first place, one has to apply with N250.0. Practically, very many Nigerians cannot afford this fee. For those who can afford it, is not a guarantee that they might afford the development. However, the allocation might be constrained by lack of plots of land or political patronage. The uncertainty that faces the planners is one of the emergence of one social class in the

Capital City, that is, the wealthy. Still the goal of national unity aims at bringing together people of all classes. Obviously the process of allocating land at Abuja contradicts this objective.

15.22 Equal representation of all States in a federal system is seen as a guarantee against discrimination and injustice. But the effectiveness of a representative system depends on a number of factors, first, the role of individual representatives, and, second, the sensitivity of the leadership to public opinion. It is difficult to determine the effectiveness of public opinion because it varies with types of leadership and also from time to time. Then what does equal representation mean for a representative in Abuja? Should it be based on the number of people involved in planning and implementation or should it relate to the type of posts individual representatives hold? Equal representation is likely to have no meaning to many if all the senior posts were held by one group of people and the junior posts by others in a pluralist state. For instance, the difference between a Director or Manager and a clerk is not only judged by the rewards that accompany the two posts, but also their roles in decision-making. The consequences such as low morale, lack of creativity, inefficiency and others which result from mal-structured administration are hardly considered by planners.

15.23 The management system is institutionalised in the FCDA. In the context of planning and implementation, the FCDA occupied a central position between the Federal Government and the consultants and contractors involved in the execution of the plans' proposals in the NFCC and FCT. The idea of splitting control of the Federal Territory (the Capital City and the Capital Territory)

between the FCDA and FCTA, aimed to take account of the various sections of the territory and coordinate the actions of the various partners concerned with the development of the Abuja projects. Later a third body was created, the Ministry of Federal Capital Territory (MFCT) to be responsible for land matters. While this is obviously theoretically desirable, in reality the administrative structure produced a number of difficulties frequently forward increasing costs of development. Two important areas of controversy have emerged; first, the legality of the FCTA and MFCT has been questioned. Though the two bodies were created by the President, the need for presenting the issue to the National Assemblies before action could be taken as required by the Constitution, was not seen as important at the time, but surely it had its implications; second, one omission was that the spheres of influence of the FCDA and FCTA were not spelled out, even though the understanding was that the FCDA would be in charge of the NFCC whereas the FCTA would be in charge of the rest of the FCT. But no physical delimitation was established.

15.24 Arising from these problems were, first, the uncertain legal status of the FCTA and MFCT in the eyes of the public. The argument put forth is that their creation was political and a means of wasting money; second, the overlap of responsibilities between the FCDA and the FCTA which has led to various confusions and unplanned locations in the FCT by the FCTA. Perhaps the absence of legal instruments and the failure of agreed areas of responsibility can exonerate any action which could be interpreted as an "over-stepping of bounds". But the cost of such action on planned land uses will be a reminder of the conflict of interests.

15.25 Lack of basic social facilities within the FCT made it necessary for the FCDA to initially base itself at Suleja (Section 11.63), but lack of cultural amenities and social diversification led to the weekend exodus of the FCDA officials, resulting sometimes in the loss of work periods by members of staff leaving their office during the week or failing to return after the weekends. The FCDA never thought how absenteeism would affect its activities, both in the office and at the site, where the site contractors ought to be supervised.

15.26 During the temporal non-official occupation of the NFCC, squatters took over control of the new areas. Their occupancy was short-lived when, in August 1982, the squatters started to feel the unsympathetic hands of the Department in charge of development control of the FCDA. Other unplanned settlements were found in Gerki and Gwagwalada. There was little thought of the implication of the demolition exercise. In the midst of the protests, the FCDA promised the squatters alternative locations yet, after one year, no action was taken. The most affected squatters emigrated. They could not move to the New City because they were unwelcome there. The planners were well equipped with professional techniques which could be used to ascertain the wishes of the masses and, also, to heighten an awareness of the nature of the problems caused by the existence of shanty towns; however, they did not use them.

15.27 Coordination of the various partners concerned with the development of the NFCC and the FCT is highly desirable. Negotiations over the development of Territory have become so widened that other organizations were required so that a wide range of organizations and

departments are now directly involved in the planning and implementing processes, including housing development corporations and State Governments; by April, 1982, the number of identifiable bodies was 104. Public participation was limited to FCDA-hired consultants and contractors and this led to the establishment of the Coordination Meeting, which is expected to meet four times a year. The interests of the people for whom the NFCC and the FCT new towns were built were less formally considered.

15.28 The uncertainty concerns the unexpected increasing costs which the FCDA has had to bear by assembling its consultants and contractors from all over Europe, America and Japan four times a year, to attend Coordination Meetings. The costs include travelling, lodging and feeding. The knowledge of the budget available for the purpose of implementing the projects is an essential input to the programming activity. This is important because of the considerable uncertainty surrounding the determination of the project/source of financing. Problems arise when the forces which by their interaction eventually determine the outcome of the budget-making process, are not properly identified, nor are the rules governing their interaction. However, judgement here will be influenced by the costs and benefits that accompany actions.

15.29 Internally, the FCDA reorganised itself by creating more departments. Technical advice was diversified to include planning, architecture, survey, engineering, health, education and social welfare services. The management of internal relations was simplified by the establishment of an Executive Management Committee which was expected to meet weekly. Though the purpose of the

reorganization was to carry out more effective coordination and supervision of site contractors, role boundaries, especially between administrators and professionals, were not specified. Given this situation, there was inadequate supervision of the building contractors resulting in the completion of only a few houses when the political decision was made to accelerate the date of the first movement to Abuja from 1986 to 1982. The problem of housing the staff remained unsolved. Accepting that there were enough houses for the FCDA and the Federal Government Ministries' staffs, what type of city is being contemplated where the population will constitute only one class of people?

15.30 The inadequate supervision of site contractors by the FCDA staff led to uncertainties of siting of buildings, finishing of houses and optimization of building materials. The early settlers have already complained of poor finishing of houses. Some houses in one of the accelerated districts were demolished because they were sited on proposed roads. The contention is that had the FCDA field base been located at Abuja and not Suleja, one would have expected closer supervision of the activities of contractors than was the case. Another uncertainty relates to the consequences of initial inadequate control and non-official occupation of the NFCC from the start. The Vacuum created was quickly filled by squatters. The belated demolition of the shanty towns marked the end of a laissez-faire attitude to settlement patterns, but it left negative effects on the squatters themselves and, in fact, on the FCT future policy. The argument is how can a Federal Capital programme which depends primarily on immigration for population growth be assisted by expelling people from the Territory?

15.31 So far as public agencies in Nigeria are concerned, they are required to reflect in their staff compositions the federal character. This means that States must be equitably represented in the staff of the Federal Capital Development Authority or similar Authorities operating on behalf of the Federal Government in the Federal Capital Territory. This proviso is seen by some who are anxious about the efficiency of the Authority as constraining and might affect its staff quality. The FCDA attempts to reflect the federal character of Abuja by employing people whether qualified or not. Their only essential qualification is that applicants belong to one State or another. On purpose, important posts are left vacant or others are created because of someone who must come from a particular area to fill them. The efficiency of the Authority is placed second in importance to equality between the States of the Federation. The consequences of such action on staff performance is never thought of by those who perpetuate it, or who use it as a cover to entrench their ethnicism into the system. It is obvious that poor staff cannot anticipate problems nor will their reactions when confronted with difficulties lead to effective solutions.

15.32 The initial task of the FCDA in the implementation of the political decision was to find a site within the FCT for the new city. The choice of the site meant that the original inhabitants of Gerki, Wuse and other small settlements would be relocated elsewhere. Approval of the Federal Government for the site was no problem since, by the Land Use Decree of 1978, the Federal Government became the landlord of the entire Territory. On the contrary, the relocation of the displaced people involved three issues, first, the cooperation of the States whose indigenes were displaced

was essential; second, helping the displaced people to resettle; and then, payment of compensation for the developments on site. In view of these problems, a Joint Planning Unit made up of the representatives of the adjoining States and the FCDA was created. Consequently resettlement and compensation in the FCT became issues of politics among the States adjoining the FCT, and that drove the costs higher than was previously imagined. It may be wrong to say that the Authorities at Abuja did not anticipate costs from compensation and resettlement; what they did not expect was their scale.

15.33 Both the NFCC and the satellite towns depend on the Federal Government and private investment for the resources for implementing the programmes. Resources are measured by the amount and quality of management of men, materials and resources. But the prime resource measurement tool has been money.

15.34 The public sector contribution to the implementation of the Abuja and FCT programmes is made up of federal government grants, a share of the national revenue allocations and, to a limited extent, on the revenue accrued from development rates paid by developers. IPA did not provide any cost estimate for the Capital City. However, Doxiadis Associates estimated that the public investment required to cover the costs of the projects and programmes proposed in the FCT would amount to approximately N26.1 billion. To cover this cost, per capita public investment would have to be approximately 3.7 times the corresponding national average (Doxiadis Associates, 1982, page 442). It might be asked: What does the national plan imply for investment in urban development for the whole nation?

15.35 Allocation to urban development in the plan was N11,209.5 million, about 15.9 per cent of the public investment during the plan period and out of that amount Abuja was allocated N2,500.0 million which was much higher than any other single allocation to a state government. On the annual average this would mean N500 million, but the 1981 budget was cut down to N377.2 million which showed a decrease of 24.6 per cent. This followed a revision of the national plan because of the petroleum demand slump of 1981 and 1982 and the OPEC's second major 'price shock' of 1979-80. Petroleum per se was expected to contribute 81 per cent of all the federal collected revenue. This obviously shows that the future of the oil market has a chain reaction on the entire Nigerian economy.

15.36 To Doxiadis Associates, the "3.7 times the corresponding national average allocation" did not seem to be inordinately high; nor did they consider uncertainties surrounding the resources or the implication of the allocation on other sectors of the economy or sections of Nigeria whose interests should be catered for by the Federal Government. For example, before the Presidential election of 1983, the salaries of civil servants and teachers in most of the States of the Federation were not paid for over four months because there were no funds to pay them. In Abuja between 1981 and 1982, contractors could not collect their payments with the same readiness as contracts were being awarded. New staff employment could not be made and the FCDA budgets for 1982/83 were revised downwards several times.

15.37 The plans produced by the FCDA's planning consultants were grandiose affairs of vision and confidence conceived against the 1970s background assumptions of

interminable economic expansion. At that time (1979-1981) it was still believed that, although the Nigerian economy might blow hot and cold, its troubles were only temporary fits of economic dyspepsia and would eventually subside. It was not assumed that there would be economic stagnation leading to acceptance of limited expenditure and development in the country in general, and particularly in the FCT. Maybe the IPA and Doxiadis Associates plans have underestimated the capability of the resources available. The FCDA counter-actions had taken the form of postponement of project implementation and prioritising of projects whose implementation could not be indefinitely delayed.

15.38 In manufacturing and housing sectors emphasis was placed on private investments. The FCDA decided to limit its participation in industrial investment to allocation of industrial and residential plots to industrialists. However, limited provision of advance factories has been proposed in one of the industrial estates. What would happen if there is a lesser positive reaction to industrial investment than expected? There was little thought given to industrial investment and the creation of jobs; and between non-provision of housing and the emergence of shanty towns. The industrial investments made so far in the territory are short of expectation; the problem is complicated when most of the firms are only capable of employing between 5 and 20 workers. This makes the realization of the target employment in the manufacturing sector less likely.

15.39 On the other hand, industrialists can see limited government participation in housing industrial workers as an abandonment of responsibility. Where the industrialists and the government are unable to provide housing, the inevitable effect, of course, will be the

creation of shanty towns which affect the image of the New City. Incentives were proposed as a mechanism for attracting local and foreign investors. But the same type of incentives have been used elsewhere in the country without much success. What is particularly different in their being used at Abuja and the FCT? There are two critical points, first, the inertia of local industrialists to locate outside their home state where their investments might fall victim to mob actions - arson and destruction - characteristic of certain parts of Nigeria; this situation is complicated in view of decreased foreign investments in the country. Then, secondly, each State Capital is a potential competitor for industrial investments from foreign and local sources in pursuit of the balanced development strategy. It is argued that if similar, stereotyped incentives are used at Abuja, not much industrial investment will be attracted.

15.40 However, a review of past trends in manufacturing investments could explain the probability of achieving the industrial policy. Figure 15.1 illustrates the growth and lag patterns of industrial sectors of the periods 1968-73 and 1973-78. Looking at the periods 1968-73 and 1973-78 separately, it is obvious that whereas in the earlier period positive growth patterns were experienced by five sectors, the most notable of which was the miscellaneous industries, metallurgy, metal fabrication and non metallic mineral products, (textiles growth being only very marginally positive), only three industries, led also by metallurgy, experienced positive growth pattern in the period 1973-78. It must be recalled, however, that both periods witnessed and benefitted from the oil boom and the various salary and wage increases, such as the Adebo and Udoji awards of

**FIGURE 15.1: CHANGES IN MANUFACTURING INDUSTRIES
IN NIGERIA 1968-73 AND 1973-1978**

	Per cent Employed		% Change	Per cent Employed		% Change
	1968	1973		1973	1978	
i) Food, Beverages and Tobacco	25.01	24.32	-0.69	24.32	19.34	-4.98
ii) Textiles, Wear- ing Apparel and Leather Indus- tries	17.80	21.57	3.77	21.57	20.90	-0.67
iii) Wood and Wood Products including Furniture	17.92	9.64	-8.28	9.64	7.07	-2.57
iv) Paper and Paper products Printing and Publishing	9.82	7.86	-1.96	7.86	6.86	-1.00
v) Chemicals, Petroleum, Coal Rubber and Plastic Products	14.14	13.75	-0.39	13.75	15.18	1.43
vi) Non-metallic Mineral Products except products of petroleum and coal	3.58	5.15	1.57	5.15	4.75	-0.40
vii) Basic Metal Industries	0.49	0.79	0.30	0.79	4.63	3.84
viii) Fabricated Metal Products Machinery includ- ing electrical and communication equipment	11.05	16.23	5.18	16.23	20.60	4.37
ix) Other manufactur- ing industries	0.18	0.69	0.51	0.69	0.67	-0.02

Source: Adapted from J. Oluwole Oyebanji - "Regional Shifts in Nigerian Manufacturing", Urban Studies (1982) 19, 365-366.

1971 and 1975 respectively. Compared with the present period with poor oil market and world-wide inflation, the probability is low.

15.41 Again Figure 15.2 shows the inter-regional movement of manufacturing employment pattern by state in the periods 1968-73 and 1973-78 period.

15.42 In 1968-73 period, nine states recorded decrease in the number of manufacturing jobs. These included Anambra, Bauchi, Bendel, Benue, Borno, Kaduna, Kano, Kwara, Ondo, Oyo, Rivers and Sokoto. Kaduna suffered the greatest decline followed by Bendel. On the contrary, States which had positive increase in employment included Cross River, Gongola, Imo, Lagos, Niger, Ogun and Plateau, Lagos having by far the highest increase with 13.73 per cent and remotely followed by Cross River State.

15.43 The period 1973-78 had also as many as nine states with negative trend in manufacturing employment. These included eight states which had persisted to experience decline - Anambra, Bauchi, Bendel, Borno, Kano, Ondo, Oyo and Sokoto and Gongola which had positive increase in manufacturing employment between 1968 and 1973 but had decreased during 1973-78. Four states - Benue, Kaduna, Kwara and Rivers - which experienced decline in 1963-73 had shown signs of growth. Whereas states that maintained positive growth included Cross River, Imo, Lagos, Niger, Ogun and Plateau. But the greatest positive change occurred in Kaduna followed by Rivers and Lagos in that order. These illustrate the competitiveness of the various State Governments.

FIGURE 15.2: CHANGES IN MANUFACTURING INDUSTRIES
IN NIGERIA 1968-73 AND 1973-78

	<u>Percentage Employed</u>		<u>% Change</u>	<u>Percentage Employed</u>		<u>% Change</u>
	1968	1973		1973	1978	
Anambra	5.42	4.82	-0.60	4.82	2.94	-1.88
Bauchi	0.70	0.37	-0.33	0.37	0.01	-0.36
Bendel	14.81	11.13	-3.68	11.13	5.20	-5.93
Benue	0.55	0.03	-0.52	0.03	0.27	0.24
Borno	0.69	0.31	-0.38	0.31	0.29	-0.02
Cross River	4.13	5.71	1.58	5.71	6.00	0.29
Gongola	0.02	0.17	0.15	0.17	0.00	-0.17
Imo	3.83	4.20	0.37	4.20	5.05	0.85
Kaduna	7.03	1.67	-5.36	1.67	5.82	4.15
Kano	11.72	11.71	-0.01	11.71	11.03	-0.68
Kwara	5.22	3.17	-2.05	3.17	3.64	0.47
Lagos	30.15	43.88	13.73	43.88	46.50	2.20
Niger	0.04	0.08	0.04	0.08	0.24	0.16
Ogun	1.22	1.99	0.77	1.56	1.88	0.32
Ondo	1.60	1.56	-0.04	1.59	0.64	-1.35
Oyo	4.57	2.98	-1.59	2.98	1.22	-1.76
Plateau	1.29	1.44	0.15	1.44	1.86	0.42
Rivers	4.73	3.68	-1.05	3.68	6.33	2.65
Sokoto	2.30	1.12	-1.18	1.12	1.07	-0.05

Source: Adapted from J. Oluwole Oyebanji - "Regional Shifts in Nigerian Manufacturing", Urban Studies (1982) 19, 367-368.

15.44 Foreign sources of investment are always affected by the performance of the national foreign reserve. Therefore, there was no opportunity to give priority to these projects that might have partial outside funding. Changes in the national economic situation as, for example, in oil prices, high importation of food materials, payment of foreign debts and others as expressed in real income, affects overall capital expenditure as well as Abuja projects.

International Aid:

15.45 There is an apparent bias in per capita aid allocations in favour of small countries and against large countries. Figure 15.3 (a) and (b) show per capita commitments by country size. Between 1967/1969 and 1973/74 average commitments to countries over 25 million were only one quarter to one third the average for smaller countries. Average commitments to countries of over 10 million population increased by significantly more than those of smaller countries, thereby reducing the population bias somewhat. Nevertheless, the difference remained outstanding; in 1973 to 1974, countries under 2 million population received more than twice the average for all other groups.

15.46 Between 1967 and 1973, the average for the poorest countries (under \$200.) was consistently below that for all the other income groups except the highest. The main reason for the low average of the poorest group is, of course, the weight of India, which in 1973/74 received only \$2.2 per capita of grant equivalent commitments, compared to an average for all other countries of \$9.5 per capita (Edelman and Chenery in Bhagwati, 1977 (ed.) p. 35). From 1967 to 1969 and 1974, commitments

FIGURE 15.3 (a): PER CAPITA COMMITMENTS BY COUNTRY SIZE (UNWEIGHTED AVERAGES, BASED ON 1970 POPULATION FOR ALL PERIODS)

1970 Population million	No. of Countries in Group		Nominal Value (U.S.\$)		
	1967-69	1970-74	1967-69	1970-72	1973-74
Less than 2.1	18	21	23.1	25.1	42.3
2.1 - 5.0	26	26	13.8	16.1	31.0
5.1 - 10.0	11	11	10.2	9.3	20.1
10.1 - 25.0	16	16	5.3	7.4	12.8
Over 25	14	15	3.1	5.4	9.7
Total Average	85	89	12.0	14.0	25.5

FIGURE 15.3 (b): GRANT EQUIVALENTS (U.S. \$)

Less than 2.1	16.7	18.2	31.6
2.1 - 5.0	10.4	11.7	23.8
5.1 - 10.0	7.3	6.8	16.3
10.1- 25.0	3.5	4.2	8.2
Over 25.0	2.1	2.9	5.6
Average	8.7	9.8	18.8

Source: J.E. Edelman, H.B. Chenery (in Bhagwati, ed., 1977) "Aid and Income Distribution", The New International Economic Order. The MIT Press, Cambridge.

FIGURE 15.4: COMMITMENTS OF OFFICIAL CONCESSIONAL ASSISTANCE: GRANT EQUIVALENT PER CAPITA AND AS RATIO TO GNP BY INCOME GROUP 1967-1974

	Per capita Grant Equivalent(a) (U.S.\$, Current prices)				Ratio to GNP (per cent)	
	1967-69 Average	1970-72 Average	1973	1974	1970-72 ^(b) Average	1973-74 ^(c) Average
A Oil Importers						
Under \$200	2.3	2.7	4.3	6.4	2.6	4.0
India	1.6	1.6	2.1	2.4	1.5	1.7
Other	3.3	4.3	7.3	11.8	4.0	7.0
\$201 - \$300	5.7	7.3	12.8	22.6	3.2	5.2
Over \$300	3.5	3.5	4.7	6.0	0.6	0.5
\$300 - 500	4.3	4.1	6.0	5.2	1.1	0.8
Over 500	2.5	2.7	3.0	6.9	0.3	0.4
Total of A	3.0	3.4	5.2	7.9	1.4	1.8
B Oil Exporters	2.7	4.1	4.9	6.0	2.1	1.5
Indonesia	2.3	5.0	6.3	6.6	6.5	4.7
Other	3.0	3.2	3.5	5.3	1.0	0.7
Total of A & B	2.9	3.5	5.2	7.6	1.5	1.7

(a) All based on 1970 population; this, of course, overstates the upward trend by about 2.5 per cent a year.

(b) Based on 1970 GNP.

(c) Based on 1973 GNP

Source: John A. Edelman and Hollis B. Chenery (in Bhagwati, ed., 1977, page 32), "Aid and Income Distribution", The New International Economic Order. The MIT Press, Cambridge, London.

to India rose only moderately at current prices, and declined in real terms. Commitments to all other countries in this group showed a rise in real terms of over 80 per cent between 1970 and 1972 and 1974, partly in response to the oil crisis. The ratio of grant equivalent commitments to GNP rose from 2.6 to 4.0 per cent for the poorest group of countries. However, ratios for India in the two periods were only 1.5 and 1.7 per cent because India's population is large, even though the GNP is low. Other poor countries with low population sizes also had an average ratio rising from 4 per cent to 7 per cent (Figure 15.4).

15.47 Even public opinions in donor countries on aid to Third World countries have not been encouraging. For example, foreign aid as "the central component" for development is considered by Professor Lord Peter Bauer and Professor B.S. Yamey of the London School of Economics (Guardian, 1st August, 1983). They are of the view that foreign aid does not promote development. They note that large-scale development had occurred in the West and also in the Third World long before aid was invented in the late 1940s. They observe that the maximum contribution of official aid to development is the cost of borrowing that is avoided. Opposing the idea of aid, Bauer and Yamey suggest that "... aid which cannot do much good for development can do much harm". To substantiate this assertion they suggest that aid so greatly increases the resources at the disposal of aid-recipient governments, that it inevitably reinforces the politicisation of life and, in turn, increases the prizes of political power and the intensity of the struggle for them. It exacerbates stress and conflict, especially in multi-cultural and multi-racial countries, they submit. In addition, they observe that much energy, ingenuity and effort has to be applied either to acquire or to share in power, or else

to avoid the consequence of its exercise by others. Aid, they argue, greatly increases the tendency to implement policies and projects detrimental to living standards and material progress. Bauer and Yamey quote India, Tanzania, Ethiopia, Pakistan and the Federal Capital project in Nigeria as examples where this has been the case. In the context of donor countries, Bauer and Yamey even challenge the Brandt Commission and President Reagan's view that aid creates jobs in the West, by saying that exports financed by aid are unrequited; they are given away. If they serve to create jobs in the donor countries, they can do so only as a result of government spending. They argue that if government spending can create jobs, there is nothing special about government spending on aid to the Third World. Finally, Bauer and Yamey did not agree with the idea of "Brandt Two" that the plight of major Third World countries threatens the international financial system itself. The threat is supposed to stem from the possible collapse of major Western banks, unable to submit that the proper course for Western governments would be to help out the banks directly. Giving aid to indebted governments in no way ensures the solvency of the Western banks.

15.48 In another occasion, (20th August, 1983) Fritz Leutwiler, President of the Bank of International Settlement, dismissed as 'grotesque' demands that the International Monetary Fund (IMF) should substantially soften loan conditions for hard-pressed Third World debtors. He said: "Realistic economic measures are required. To say that these countries should not be treated with toughness is absolutely grotesque". Leutwiler stressed that the debtor countries, the world's creditor banks and creditor countries, would all have to make sacrifices if the present international debt crisis were to be overcome.

Debtor countries would have to discipline their economies, bring down inflation, check growth and reduce government deficits. In the future, creditor banks would have to pay in the form of debt write-offs and renunciation of interest payment. Creditor countries would have to open their markets to the products of debtor countries. (The Guardian, August 22, 1983).

15.49 The present context does not provide a forum to exhaustively criticise Bauer and Yamey's opinion that there is a causal relationship between aid and the exacerbation of stress and conflict in debtor countries. Neither does it provide a platform to deplore the attitudes of countries and foreign banks which encourage the banking of illegal sums of money from private individuals from the Third World countries, but also oppose the grant of aid to countries in need. We are primarily interested in assessing how far developments in Third World countries can depend on foreign aid or loans and, also, to gauge whether public opinion can help or hinder the giving of aid by donor countries.

15.50 Given the above analysis, Nigeria has a population of over 80 million (1982 population estimate); is an oil exporting country and its per capita income is rated by the U.N. to be \$300.00 per annum. Moreover, the public opinion in donor countries tends towards opposition. What this should mean to Nigeria and similar countries in the Third World is first, cultivation of a more responsible approach towards financial management, and secondly, a start to a search for local sources of revenue, since the hope for foreign source is bleak (Chapter 4).

15.51 The product of recruiting foreign experts who, in fact, include people from many countries, can be regarded as an example of a problem encountered, for example, in a football team with borrowed players. Those who recruit them assume that they will overcome problems existing with working with members of a team whose experience and commitment are at variance with the clients'. The critical issue is that many of the FCDA staff are under-employed. Perhaps the Authority is overstaffed or it lacked the managerial capability to utilize human resources. Albeit, the staff have to be paid as long as the Authorities retain their services. Some who could not help being idealistic found other activities as a substitute and in some cases they left the services before the expiration of their contracts. The FCDA lost some of its Phillippino staff in 1982 because of the same reason.

15.52 On the other hand, the performance of some of the foreign staff employed by the FCDA did not show the expertise they claimed. However, the Authority could not in practice easily predict the subsequent behaviour of individuals at the time when they applied for jobs. The Authority has depended on credentials which might be falsified.

15.53 Considering the growth forecasts of the Capital and the Capital Territory Plans, reference will be made to the existing population of the Territory which was estimated at 3777 in 1979 (IPA, 1979, page 58). The plans are based upon the population of the Territory being induced to reach 3.0 million in the year 2000. Both plans used the systems approach as well as adopting political assumptions to estimate the populations and labour force sizes of the NFCC and the FCT in the year

2000. Thus it was anticipated that by 1986 and 2000, the NFCC would grow to 150,000 and 1.6 million respectively (IPA, 1979, page 60); Doxiadis Associates forecasts for the NFCC varied a bit from IPA's estimate in 1986 by putting the population at 158,000 while conforming with the IPA estimate in 2000.

15.54 Judging from past experiences with Nigerian cities (Section 3.35) it is easy to anticipate a similar immigration trend in Abuja. However, likely sources of uncertainties could be identified. First, the growth of most of the existing cities depended to a large extent on the existing populations. This was not the case in Abuja. Abuja's existing population, though very small, had to be relocated either to the Territory or to the adjoining States. Second, in those other cities there were basic supporting infrastructures, but Abuja's social facilities are being provided from scratch. Like most new towns and new cities, the population of Abuja might be dominated by a high proportion of young children and young adults. New towns house relatively few adolescents and even fewer people in the age bands beyond the mid-forties. Therefore, it is uncertain that the Capital city population by 2000 would be balanced. Steinberg (1981) in his analysis of the new towns around Paris, points to the predominance of an essentially lower middle class population, with an under-representation not only of those within the higher income groups, but also of the least favoured amongst society; this latter condition pertains despite the provision of a range of subsidised accommodation, suggesting that either the level of assistance is inadequate in the more extreme cases, or that such groups are relatively immobile.

15.55 Doxiadis Associates (1982, page 71) estimated the FCT population in 2000 to reach 2,391,000 who would be

dispersed throughout the 27 urban centres and 207 rural areas.

Both IPA and Doxiadis Associates agreed that the existing population of 3,777 would naturally increase to 170,000 by the same period. The two plans (IPA's and D.A.'s) manifest similar characteristics. It is also easy to see the conflict between the plans' growth and dispersion strategies. It is difficult to see how the two policies can work successfully at the same time and in the same region.

15.56 Another source of uncertainty is the capability of the Federal Government to meet the demand such population size would entail. The scale of change in demand for public services is an outstanding and increasing feature of the growth problem that will face the NFCC and the satellite towns. A simple increment in demand for a few services can only be met by addition of a new staff or facilities. The youthful age of most of the migrants who usually move to new towns would imply high birth rate. This will give rise to the demand for public welfare services, social assistance programmes, and children's aid programmes. The need for family counselling will lead to the demand for office of the Family Services. The complexity of population from all over the world and possessing varied tastes means that their demands will be complex. Schools for children and recreational facilities for both young and old will be required. School playgrounds can provide the initial alternative for recreational centres at the local level but the city government will be expected to provide facilities of city and national scope. The population also means a surge in demand for medical and social services, a reliable water supply, an electricity power supply, sewers, paved streets and serviced building sites should be expected in both offices and industrial estates. The demands will be high and these will reflect the costs

to provide them. Their overprovision in view of the population target, would not only deprive other areas of national interest the money to provide them, but the services provided would be suboptimal.

15.57 Given the food shortages in Nigerian cities Doxiadis Associates proposed 106,925 hectares of intensive agriculture, 65,790 hectares for animal husbandry, a total of 262,550 hectares for forestry; already, 25,170 hectares are reserved for forestry. The emphasis on agriculture is consistent with the national policy to increase food production and, moreover, is a way to put the whole territory into full economic use.

15.58 However, the trouble with this sector stemmed from the difficult heritage of the past. Beset now by drought, now by poor soil, lack of labour force, now by the exploitation of powerful middlemen and now by poor storage system. The cultural unpreparedness to adopt changes also constitutes an obstacle to rapid economic growth in this sector. Agriculture, like other sectors of production, requires capital: no factories, no power lines, no machines, and no paved roads in the FCT. These must be supplied at a cost.

15.59 Probably the green revolution programmes in Nigeria will provide answers to some of the problems of agriculture in the FCT, but still uncertainty surrounds the provision of water for irrigation purposes if 575,975 hectares of land in the FCT proposed by Doxiadis Associates were to be put under the plough. If there was no adequate amount of water for irrigation in the dry season and in a semi-arid environment such as the FCT's, the farmers would be seasonally employed and that

would affect their income. To make agriculture gainful, farmers should be busy and the land be capable of production throughout the year. It is uncertain whether the planners took account of the water requirement of the agricultural sector when calculating the water requirement of the NFCC and the FCT New Towns. There is no clear evidence that they did, because the effect of water scarcity has started to be felt by the present population of the Territory.

15.60 Mineral prospection is to be confined to the quarrying of certain types of building materials because the data and aerial imagery consulted indicated that the deposits of recoverable minerals (for example tin) in the Territory are very limited and not worth economic exploitation. The huge demand for construction materials in the FCT would make the exploitation of all local relevant resources be carried out to the fullest possible extent. This would save considerable amounts of money and time.

15.61 A total of 140,710 hectares was identified as an ecologically sensitive area which should be conserved. The area could be increased or reduced as resources permit. Selective conservation is a flexible approach and it is seen as being able to reduce uncertainty.

15.62 Four industrial areas are proposed being expected to lay emphasis on light industries and those products which will facilitate the building of the New City. The purpose of the decision is to prevent industrial pollution. In spite of the need to protect the urban environment from pollution, how can city administrators disallow any industrial development when they are faced with unemployment problems in the city? Selective development appeared to be the utopian line of thought

when the plans were formulated, but there is doubt whether the decision-makers still hold the same views now that the economy is on the slide and there is little or no intention of industrial investment.

15.63 The Doxiadis Associates plan realised the need for industrial investment but it did not designate any areas as industrial sites. It rather recommended "general purpose type" industries which can be seen as a flexible approach.

15.64 The policy to disperse industrial investments was seen as a means to reduce overcrowding of activities in the NFCC, but growth and dispersion (as in population objectives) may be contradictory policies in current circumstances. No serious investor will opt for the FCT location - especially those parts that are further away from the NFCC - when he has an alternative site within the New City boundary; nor is the FCDA likely to stick to such a policy of discrimination of industrial types when few offers of investments are being received.

15.65 The role of the Ministry of Industries was not defined in respect of Abuja, in the disposition of industrial land or attraction of industries. As a result of this loose-ended policy, the task of attracting industries locally or internationally is likely to be left with the FCDA. The only method open to the FCDA is to offer incentives like infrastructural development and tax relief of various kinds. Experiences elsewhere had shown that industrialists who show readiness to accept incentives are usually the early victims of economic instability.

15.66 IPA and Doxiadis Associates proposed private housing in both the Capital City as well as in the 27 satellite new towns in the Territory, except limited interventions by the Federal Government. In the NFCC, development has been accelerated in two districts through Federal Government intervention. A similar action has been taken in Gwagwalada and Karu satellite new towns. In both IPA and D.A.'s plans there seems a lack of understanding of the inter-relationship between housing policies in the FCT and existing housing policies and programmes in Nigeria. The performance of such policies as housing subsidy, housing loans, site and services and Federal and State housing programmes would have provided enough experience to suggest whether or not to adopt a similar policy in future. Neither does it appear that any inter-relationship exists in generating policies in population growth, housing and jobs provision. The concept of affordability in housing provision is equally inapplicable in the present circumstances, with population and time targetted. The concept was only introduced in the U.S.A. when housing ceased to be an urban problem, but at that time it was criticised because a policy based on it tends to widen the gap in economic status and welfare between renters and owners (Jim Kemeny).¹ The lack of sensitivity in regard to the nationwide housing problem makes realization of the policy for housing at Abuja uncertain. In regard to interest on housing loans, some argue that the inflation rate will balance interest rates, but, at the end of the day, it is the low-income earner to whom the problem of high interest rates and inflation is transferred as the end-user. Even knowledge of inter-relationships within the building industry itself is vital. Information about housing needs an input from experience of other

1. Jim Kemeny - JAPA, Volume 48, No. 4, 1982.

building processes, including knowledge about resources, such as money, labour and materials and information of performance of other building processes. Nothing is more wasteful than the commonly held acceptance of the premise that each task - whether it be briefing or designing or construction planning or building - should be started from first principles. (Refer to Hypothesis II in Chapter 2). Even with desired interdependence, the resource factor is quite unpredictable. Some aspects of the building industry such as the tender process used in Abuja projects, introduced a division between opposing parties, which blocks all-important feedback channels and communication.

15.67 It is paradoxical that New Cities on this scale are doomed to defeat their purpose in so far as they are aimed at helping to banish urban squalor. A brief consideration of the social and sociological factors at a national or regional level, however, yields a simple explanation of how and why the situations develop in this way. Their resolution is, perhaps, through a discriminatory policy which will focus on the housing problems of the poor, rather than aiming at a package deal in which the benefactors are the wealthy.

15.68 Emphasis was laid on the use of subsidies and housing loans to expedite housing development in the private sector. The policies ranged from no effective subsidies to large external contributions to the housing programme. Gross subsidy within the housing programme from higher-income groups to lower-income groups was considered by IPA as one of the ways to realise this. This sounds more idealistic than real, especially in the Nigerian economy and traditional social relations. However, repayment terms should range from interest

rates of 8 to 8½ per cent over 20 to 25 years to concessionary terms offered to low-income families of 6 to 7 per cent over 25 years (an effective subsidy). In both cases, income affordability was tested at 15 to 20 per cent of low-income groups, while for middle and high income groups affordability was at 20 to 25 per cent. Doxiadis Associates further proposed that only 24 per cent of the houses would be provided through subsidized public funding, about 10 per cent would be built totally with public funds (selective public actions - see Section 15.66 above), and the rest through self-help effort (private housing). The question here is over "the rest", which is about 66 per cent and constitutes those who can afford to build without outside assistance or as otherwise contributed by the private sector. In either case, it constitutes uncertainty in policy. However, in order to achieve the policy, the price of houses in the FCT urban areas was estimated to cost on the average N5,570.0. From previous studies (Chapter 3) it has been demonstrated that prices of basic building materials and labour are significant in the cost of building. Since these factors greatly influence the total cost of building, and since their sources of procurement are the same, the timing of both projects is the same and the value of naira is likely to remain the same for the NFCC and the FCT, the difference in the cost of building standard housing for the two areas is relatively slight and would not have created such a difference in estimation between the NFCC (N10,000) and the FCT New Towns (N5,570.). One can contend that the Doxiadis Associates estimate was either not realistic or implies significantly lower standards.

15.69 Unlike Doxiadis Associates, however, IPA did not provide any forecast in housing output at least as a means of ensuring the realization of related policies in

population distribution and provision of jobs. IPA's lack of prediction is tantamount to lack of confidence in the realization of such forecasts, knowing that the Nigerian building industry is circumscribed by uncertainties within and without.

15.70 Even with the conservative estimate of N3770.10 million for housing subsidies and loans, the contention is that there is a limit to which the Federal Government can rise in spending on housing. There are competing demands - defence, food, health, education and others - so that it would be senseless to spend on one and starve other sectors. Surely if the Federal Government could not afford such amount of money for the FCT alone, a chain of reactions would be set in motion - affecting the number of people that could be settled in the Territory, the population targets and the construction industry.

15.71 In addition to the development of the Capital City at Abuja, the IPA plan proposed the consolidation of the existing settlements of Gwagwalada, Dafia and Dangara by the improvement of existing services and facilities. This proposal would, given enough time and resources, imply concentration on the NFCC. On the contrary, the Doxiadis Associates plan proposed 27 new towns and 207 rural areas. This would imply the redistribution of the estimated population of the FCT among the new towns and rural areas. The two plans contradicted each other in this respect. The proposal assumed the success of the employment, housing, transportation and other social facility assumptions. It equally assumed the parallel growth of the NFCC and implied continued revenue from the oil market, since that provides the main source of Federal Government revenue.

15.72 The creation of 27 new towns and 207 rural areas along with the Capital City at the same time is not a simple task. The first step to implement this proposal made a maximum demand on the resources of the nation. The FCDA and FCTA with bravura and unrestrained adventurism splattered all the land covering 8000 square kilometres with community developments in small but isolated native settlements, upgraded early at the planning stage to development area headquarters. They did this with the intention of bringing the whole area alive but, in fact, what they achieved within the first four years was sterilization of the whole area, encouraging secret land speculation in areas with minimum development control, and the creation of an intolerable temporary transportation problem for local communities and FCDA and FCTA staff working in those development area headquarters. One could contend that these issues are temporary inconveniences and would pass with time. That is true, if only there will be enough funds to continue the developments.

Assumptions:

15.73 The IPA and Doxiadis Associates plans assumed that out of 1,517,000 expected population of the FCT and NFCC in 1990, 1,347,000 would be immigrants. Any changes in location demands (i.e. the demand for migration) involve demands for specific opportunities at a specific location. In the context of this research the three principal opportunities are housing, employment and environmental opportunities. For migration to take place, an opportunity must exist for, and be perceived to exist by an individual - thus variations in migration between groups may arise both from the variation in the supply of opportunities and from differences in their perception and evaluation by prospective migrants. The prospective

migrant receives information, ranks according to preferences embodied in an objective function, and chooses between, on the basis of these preferences and the external constraints on his action imposed by financial, educational, personal, household, past experience and other considerations. Therefore, the choice to move is personal.

15.74 Where these opportunities are provided in the NFCC and FCT, there is no doubt of the inflow of immigrants to the Territory, but it is difficult to determine the number. However, if there are continuing problems with external investment and the funding of the development, the pull factors - housing and jobs - will be in short supply and these will affect the scale of immigration. Even given continued growth, the scale of immigration could still be affected if the political stability of the country were in doubt. The interaction of these variables - the migrants, availability of jobs, housing and political environment - is important in determining the scale of immigration. The argument must be that past expectations have been too high to be realistic. The NFCC and FCT cannot also depend on the natural growth based on the indigenous population of 3777 (1979 estimate) to realise 3.0 million people in the year 2000. Hence, the probability of reaching the target size in 2000 is low.

15.75 In determining labour force participation, the IPA plan assumed 43,700 manufacturing jobs for the NFCC and Doxiadis Associates' plan assumed 161,350 manufacturing jobs for the FCT. Both estimates are made from a zero base and this, by implication, is an indication of how ambitious the two plans were in respect of an area now predominantly agrarian in character.

15.76 Peasant labour may construct roads, but it cannot, with its bare hands, build the trucks to run over the roads. It may throw up dams, but it cannot fashion the generators and power lines through which a dam can produce energy. (Heilbroner and Thurow, 1981, page 615). In other words, to create manufacturing jobs at Abuja requires a vast array of industrial equipment. Capital equipment can be obtained through one of three ways - buying it from countries that manufacture them, through foreign investment by corporations or individuals from developed countries or locally with foreign aid. It has been noted already that foreign investment and foreign aid are becoming difficult to obtain (Sections 15.45-50) whereas purchasing it from industrialised countries is being constrained by the Nigerian declining oil market.

15.77 Therefore, the probability of realising the assumed manufacturing jobs in the NFCC and FCT is considerably low. What the planners tend to leave unsaid are, first, that industrial development makes maximum demand on resources; second, that modern industries do not have labour-intensive operations to absorb such numbers of the labour force, and lastly, that the unemployed are always in search of where they can secure a job. The GDP may be characterised by a zero growth so that few investments are possible, or the established industries may be so mechanised that the labour force required is low, many people being unemployed and sometimes turning to other activities in order to earn their living. At worst, they drift back to their villages. This is a very pessimistic scenario, but every development of this scale holds risk and uncertainty and the possibility of unparalleled failure.

15.78 Doxiadis Associates' plan assumed 169,000 jobs or supporting population in the primary sector. Accepting the necessity of this objective, it would be argued that if the urban centres in the FCT are made so attractive and gainful, only a few people would like to work on land where they would expect a reduced income. However, the agricultural sector minimises resource demand more than the development of urban centres or the creation of industrial estates and, perhaps, if encouraged would serve as a shock absorber for unemployment resulting from lack of manufacturing employment. Albeit, two uncertainties are identified; first, deals with whether the labour force in agriculture is realizable in view of the urbanization processes in the territory and, secondly, settlement preference - urban or rural - is personal.

15.79 The IPA and Doxiadis Associates plans assumed adequate housing provisions in both the Capital City and the FCT. These entail providing 266,667 dwelling units in the NFCC and 478,200 dwelling units in the FCT. With selective public actions about 66 per cent of the housing development is assumed to be the contribution of the private sector. While many developers were willing to consider building houses in the Capital City, a large number of them had reservations and appeared to be willing but cautious. Factors and perceptions common to most enthusiastic potential developers at Abuja include planning problems, finance and security of property. Other factors not particularly relevant to Abuja include land prices, land scarcity and demand for houses. Finance is the principal factor in house construction in Abuja.

15.80 The IPA plan made no cost estimate for a private house development and hoped to achieve the population targets before 2000. Doxiadis Associates' estimate of the cost of building a house in the new towns (N5,570.00) was considered as conservative. Even at that cost, and the high economic costs were feasible, the full range of housing types would be permissible, as would experimentation with technological improvements which have not yet been perfected but show promise. But the political uncertainty exists as to whether the Federal Government would persist with exceptional levels of housing expenditure (N3770.10 million in the FCT alone) in Abuja and with the FCT programmes, without equivalent input to housing in other States of the Federation. However, there is a point beyond which political opposition might not be able to go in view of the investments already made in the Territory. Opposition to changes in standards and technology could be expected from local manufacturers, contractors and builders and, also, the section of elite society which will be immediately affected, who could see themselves edged out by their foreign counterparts.

CONCLUSION:

15.81 In the analysis of the uncertainties surrounding the Capital Plan objectives and assumptions, it is noted that uncertainties of knowledge of the planning environment featured prominently, as can be seen in Appendix 15-A. In Chapter 14 it was noted that this category of uncertainties arises from bad forecasts. The estimates in some cases were too high to be realistic. The natural increase of the indigenous population from 3777 to 170,000 in the year 2000 is an example of over-estimation. In other cases the estimates were too low to be of any practical

use, for example, the building cost of N5570.0 for standard house in the FCT. Generally only single forecasts were made and they hardly provide opportunity for flexibility. The next prominent uncertainties were those related to value judgements, followed closely by uncertainties involving lack of coordination of various interest groups in the planning or implementation of plans at Abuja/FCT. A number of "predicted risks" was identified in areas of joint planning between the FCDA and the adjoining States, in mineral prospection and conservation. These show a certain level of awareness of future conditions by the planners.

15.82 The two plans used the systems approach as well as accepting the Federal Government targets for predicting the labour force, population and transportation demands. The approaches tend to provide an alternative, but a crude one when data are not available. They are static in accord with the definition used in dynamic systems. They give a rough estimate at a point in time instead of showing changes that might occur over time. Therefore, the validity of the forecasts is in doubt.

15.83 The main cause of the problem is the failure to start from a firm base; the existing data could be out of date, incomplete or unreliable. Inherent influences from past policies or the institutional environment affected the population data negatively. It is difficult to forecast from this position because the existing position was poorly understood and analysed. The forecasts rarely isolated the policy components either of currently proposed policies or, indeed, of the continuing effects. The policies were unable to distinguish factual from politicized information. The argument is that the

forecasts were heavily 'demand' based in terms of number of people, jobs required, household estimates and housing needs, and they rarely involved detailed analysis of resources and constraints on building capacity, industrial investment and job supply. There is inherent uncertainty over 'demand' components because each one of them is analysed separately. Separate analysis is, of course, not consistent with systems analysis because the effect of variation in one of them will automatically affect the other components. Analysis of numbers of jobs and houses capable of being supplied in relation to need might have offered better explanations of these phenomena and secured better policy, simply because any demand based system of forecasting to generate policy assumes a high level of control, through rigid control over building, land and other factors. Bracken (1981) said that the 'demand' based forecasting model is the more difficult of the two to implement, because it readily slips into the use of published data and trend forecasting which provides a pseudo-technical justification for policy-making, whereas the 'supply' based model effectively emphasizes spatial concerns from the start, places emphasis upon a clear understanding of the local development process and makes a minimal demand in policy making upon highly assumption based forecasting.

15.84 There is an absence in the Capital projects of ear-marked sources of funding, such as loans and taxes. It looks as if there was a general belief that oil reserves would always be available, but since world oil demand and prices have fallen, alternative sources need to be found. In the absence of these alternative sources, Abuja/FCT projects and programmes will depend on continued contingency funding. This is one of the greatest weaknesses of the IPA Plan for Abuja.

Furthermore, there is a lack of relationship between forecasts and policy. For example, the policy of subsidized private development proposed by both IPA and Doxiadis Associates could hardly induce enough development to provide housing for the population, even under a buoyant economy. One would expect a relationship in policy between the Federal Government housing programmes and those at Abuja. Similarly, labour force estimates are treated in isolation from investment in manufacturing industries and the inter-relationships with policy analysis were absent in the plans. Estimates for future demands for jobs, housing, roads and social services call for clear understanding of the inter-relationships and the uncertainties involved. The IPA plan, for example, had no proposal for the displaced people within the city boundaries and the measures adopted were disjointed.

15.85 The plans were basically concerned with allocating growth, as between different types of dispersal and concentration strategies, powerfully driven by assumptions about a high influx of people from all parts of Nigeria, especially by diversion from Legos, and a rapidly expanding construction, manufacturing and tertiary job supply. Forecasts were made without backing policies on:

- (i) the realization of the target population;
- (ii) the possibility of providing adequate jobs through manufacturing industrial investments;
- (iii) the power which the plans have to enforce their proposals, for instance, how to compel industries to relocate at Abuja/FCT; and
- (iv) measures to persuade foreign investors to come to Abuja and be assured of full compensation in the event of political instability.

15.86 Given the many unexpected effects which policies have experienced even within the first four years (1980-1983) of plan implementation, predicting a simple connection between a given policy and its intended effect would appear to be at best naive and at worst, to be foolish. Our analysis so far has shown that the Master Plan for Abuja and the Regional Plan for the FCT are basically similar in style and, where they differ, it only shows deeper misunderstanding of current events. This aspect of variety is marked in one area of Doxiadis Associates' Regional Plan, the concluding discussion of uncertainties. But after deeper consideration, it is crystal clear that the implications of those uncertainties were not reflected in the main body of policies. Constant review may be able to help the situation. The next chapter considers the plans' performance under uncertain conditions.

16 IMPLEMENTATION OF THE PLANS

This chapter describes and explains the processes by which the Capital Plans (Abuja and the FCT) objectives and assumptions have been transformed into public services which are in the heart of the Federal Government and it provides explanations for the realization or non-realization of programme objectives and assumptions.

16.1 Experience at Abuja showed that much effort of the planners and decision-makers has been spent on planning and less on designing the implementation of plans. Master Plans have been prepared or being commissioned, starting with the New Federal Capital City, Abuja, to Yaba, the smallest development area headquarters in the FCT. This observation confirms impressions already had by Pressman and Wildavsky (1973, page 166-175) and Dror (1968, page 191). Pressman and Wildavsky noted:

"..... we have been unable to find any significant analytic work dealing with implementation. How shall we persuade others that it is fruitless to look for a literature that does not exist, or that we cannot connect our work with non-existent analysis by others? It is a little like searching for the little man who isn't there".

16.2 The new interest in analytic strategy of policy implementation that is emerging (Walter Williams, 1971; Pressman and Wildavsky, 1973; Bunker, 1976;^{*1} Tropman and Dluhy, 1976^{*}) has not permeated the planning practice. The process of moving toward realization of the policy issues requires more than the tactical and administrative planning that is usually included as part of the policy proposal. The essential continuity of the action with the concept is emphasized by Dror's observation: "..... repolicymaking is needed during the execution of policy". The content of the plans is re-assessed, interpreted and recast sometimes with care to preserve the core of the original intent, sometimes with thoughtful revision of the original assumptions and objectives, and

1. Tropman, John E. et al., 1976.

sometimes, as an unreflective response in terms of bureaucratic conventions or situational constraints which tend to counter the framer's intent. (Tropman et al., 1976, page 137).

Policy implementation framework:

16.3 Theodore Lowi (1969) in his study of two major federal urban programmes in the U.S.A. (urban renewal and public housing) in a single city, supports the proposition that a policy of delegation of powers without rule of law (clear legislative standards) may ultimately result in ends profoundly different from those intended by the original sponsors of the programmes.

16.4 In continued search for a framework for implementation, Williams (1971, page 144) said: "In its most general form, an inquiry about implementation capability (or, more accurately, specification/implementation) seeks to determine whether an organization can bring together men and material in a cohesive organizational unit and motivate them in such a way as to carry out the organization's stated objectives", (Nagel, (ed.), 1977, page 103).

16.5 Supporting organizational perspective, Long (Tropman et al., 1976, page 134) noted that successful programme implementation depends upon the ability of the organization administering the programme to survive and grow in a sometimes hostile political environment. In an effort to gain the political support that an organization needs to survive, the overall purpose of the programme may have to be sacrificed somewhat. Without a base of political support, organizations are helpless.

16.6 Horn et al. (Nagel, 1977, page 97) suggested that where participants in an organization are alienated and have an intense negative orientation toward the organization, coercive power, the application, or the threat, of punitive sanctions, may be required to achieve adherence to the organization's rules and objectives. On the other hand, where most participants have intense positive orientations and are highly committed to the organization's goals and objectives, compliance can usually be achieved through the use of normative power - the allocation and manipulation of symbolic rewards and deprivations. And where participants do not have intense orientations towards the organization and their involvement is a function of perceived costs and benefits, remunerative power, the allocation of material resources, such as salaries, commissions and fringe benefits, is likely to be the most effective means of achieving compliance (Amitae Etzioni, 1961).

16.7 It can be inferred that the various suggestions assume availability and timing of the release of funding to the agency as factors that hinder or foster project implementation, therefore, the implementation framework will strive to consider the following of the organizational structure, the socio-economic conditions, the political conditions, the legal aspect or standards that are expected to be met, resources, the need for communication, enforcement and the individual actors in the administrative system. The interaction of these variables is illustrated in Figure 16.1.

FIGURE 16.1: MODEL OF POLICY IMPLEMENTATION adapted from Carl E. Van Horn and Donalds S. Van Meter (Nagel (ed.) 1977, page 106). Policy Studies - Review Annual Vol. 1, 1977.

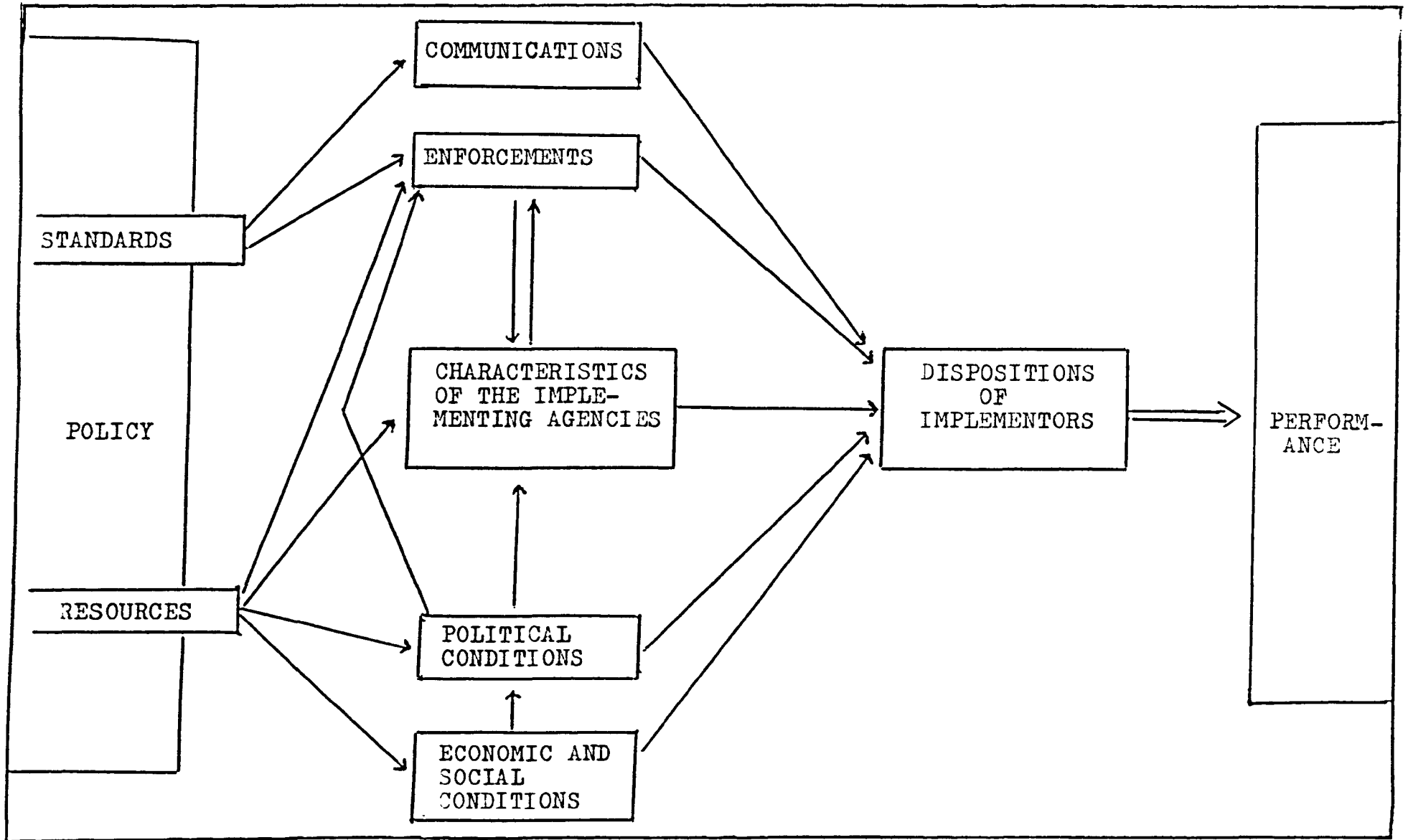
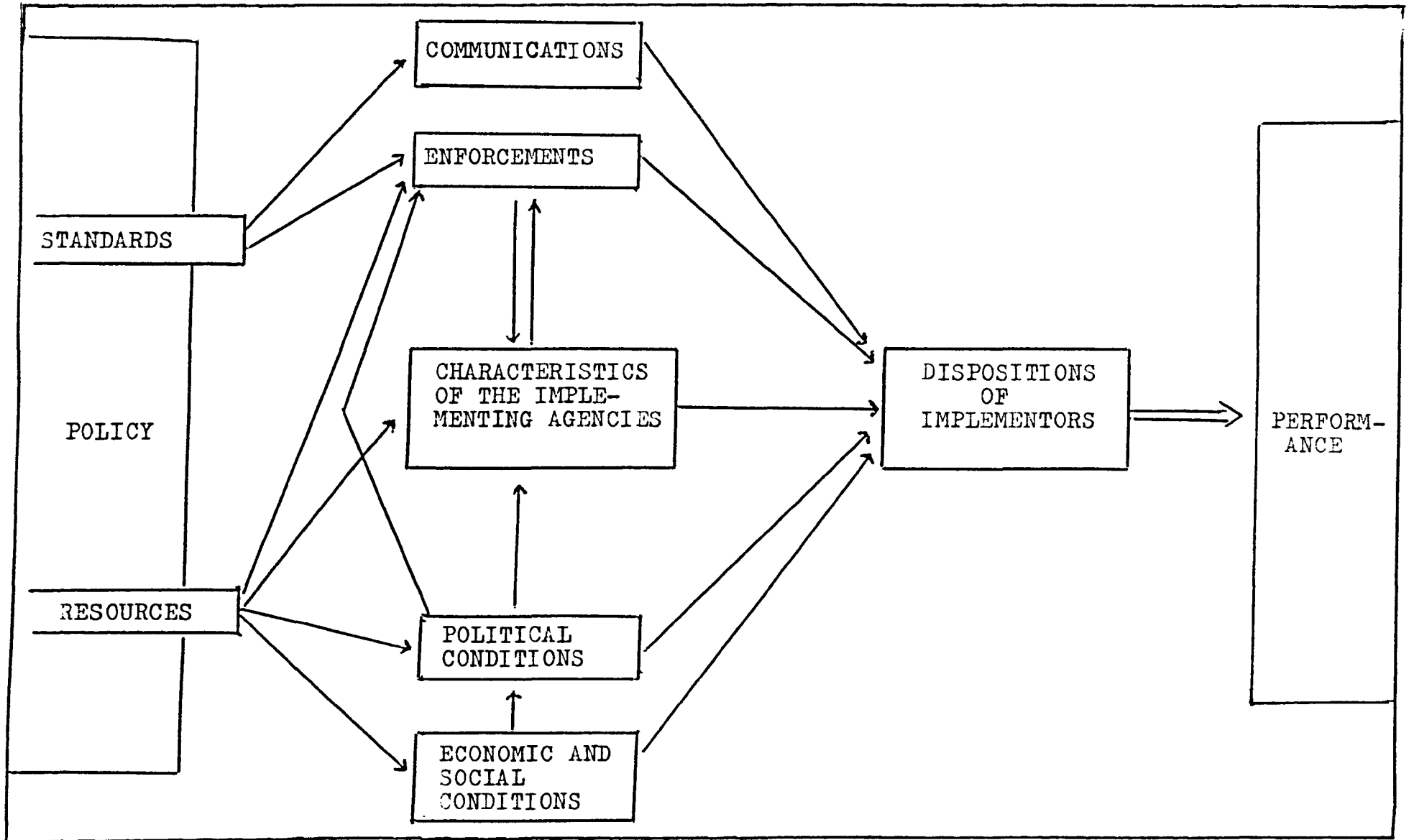


FIGURE 16.1: MODEL OF POLICY IMPLEMENTATION adapted from Carl E. Van Horn and Donalds S. Van Meter (Nagel (ed.) 1977, page 106). Policy Studies - Review Annual Vol. 1, 1977.



16.8 The definition of the focus of this chapter is important. A distinction must be made between policy implementation, policy performance and policy impact. Though related somehow, policy impact studies examine the linkage between specific programme approaches and observed consequences, for example, the impact of a housing loan on accommodation problems in Nigerian urban centres. The study of policy implementation, on the other hand, highlights one of the forces that determine policy impact by focussing on those activities that affect the rendering of public services. Dolbeare (1974) observed that impact studies typically ask "What happened?", whereas implementation studies also ask - "Why did it happen this way?" (Nagel, ed., 1977, page 103).

16.9 The policy implementation studies address questions on the sets of variables and their inter-relations that determine policy performance. The policy performance asks for output of policy. Even when the objectives have been achieved, for instance, providing a number of dwelling units for 2000 population, the impact on the beneficiaries may be positive or negative depending on their needs. The chapter, therefore, focuses on policy implementation that seeks to explain reasons why the policy performed as it does. This would involve reviewing the administrative structure and its environment and their interactions with those engaged in transforming the policy objectives into public services; the policy performance and assessing why performance is different from expectation.

Administration:

The Policy: Resources and Standards.

16.10 Two elements of policy decision influence the implementation process: policy resources and policy standards. The policy to build a New Federal Capital City provides financial and other resources for the programmes, their administration and enforcement. The Federal Government of Nigeria (FGN), therefore, sees itself as the responsible authority for providing the necessary fund for building the new towns. The provision of social amenities is not to be left with market forces in order to avoid a fall in quality, quantity and spatial spread.

16.11 The Abuja Multicity project is funded from two principal sources:

- (i) Grant from the Federal Government. In this context Abuja is treated as one of the Federal Capital projects which should be financed from funds allocated for the Federal Government Capital Expenditure. The 1982 grant to Abuja, for example, was N271.0 million;
- (ii) By the new Federal Government of Nigeria Revenue Law, Abuja is treated as a state and this entitles it to a share of the funds allocated to all the States and their Local Government Areas. The method of sharing states' allocation is not an issue to be discussed here; and
- (iii) Money is realizable from the allocation of plots to private developers. This money is called

layout fee. Initially the revenue that accrues from this source is minimal. Layout fees (or premiums) payable per plot within Government Layouts are shown in the figure below:

FIGURE 16.2: LAYOUT FEES WITHIN GOVERNMENT LAYOUTS

(i)	Places of Worship/Agriculture/Schools, etc.	N250.00
(ii)	Mining/Quarry	N500.00
(iii)	Residential Area	
	(a) Low Density Area	N1000.00
	(b) Medium Density Area	N 750.00
	(c) High Density Area	N 500.00
(iv)	Commercial Area	
	(a) District and Sector Centres	N2500.00
	(b) Central Area	N5000.00
(v)	Petrol Filling Station	N5000.00
(vi)	Industrial Area	
	(a) Light Industry	N5000.00
	(b) Heavy Industry	N2500.00

16.12 The monies provided by the Federal Government are not treated as loans and, therefore, no refund or interest is expected from the Federal Capital Development Authority and the Federal Capital Territory Administration as the implementing agencies or similar Authority in the country. Perhaps if loans are necessary for the implementation of the programmes, it is the responsibility of the client government to borrow and make the money available to the implementing authority as grants.

16.13 The Development Areas within the Federal Capital Territory were not financially viable, and were not expected to contribute to the building of schools and providing other infrastructural services.

16.14 However, further contributions to the development of Abuja were made by other government agencies which had their different budget allocations and were meant to locate at Abuja, private organizations and companies who build hotels, factories, offices, clinics; private owner-occupiers who build their own houses, private developers who develop housing estates, and religious agencies which build mosques and churches.

Capital Expenditure:

16.15 Capital expenditure is based on the approved Estimates of the FCDA. The approved capital Estimates of the Board authorise the issue of funds for expenditure on capital projects, as contained in the approved annual estimates, and authorises the officers controlling the votes to incur expenditure on those projects. Such authority will be deemed to be conveyed after the capital expenditure estimates have received the approval of the Board. The transfer of expenditure (revote) from one financial year to another must not exceed the unspent balance of the original approved project vote (cost) after all other expenditure authorised for the year has been provided for. Applications for additional capital provision, may, however, be made to the FCDA Board stating, in respect of each project concerned:

- (i) the estimated total costs as shown in the current Estimates;

- (ii) the total expenditure incurred up to date on the project;
- (iii) the provision in the current approved Estimates; and
- (iv) the amount of additional funds required and reasons for same.

Recurrent Expenditure:

16.16 The FCDA's approved Annual Estimates authorises the Permanent Secretary/Executive Secretary to issue funds to pay for the personal emoluments and services provided in the Annual Estimates as well as to incur expenditure under the relevant votes on this purpose. There should be a continuance of the services of the Authority in the succeeding year at a level not exceeding the level of those services prevailing in the current year's approved Estimates, for a period of four months or until the Authority's subsequent Annual Estimates are approved, whichever is shorter.

16.17 As a result of certain unforeseen circumstances when the annual estimates were framed, and additional provision is required under a particular subhead or a new subhead is required, a "Virement Warrant" may be issued to effect it. Approval for Virement will be sought for from the Chairman of the Board only if it is certified that the approved additional expenditure is necessary and subject to the limitations that:

- (a) the approved additional expenditure comes within the ambit of the head of the Estimates concerned;
- (b) the total expenditure originally approved in the Estimates for the head is not exceeded;

- (c) the re-allocation is not required to give effect to a new principle or policy which had not been cleared with the Board, or so to alter the amount provided under subheads as to raise doubts whether the intentions of the Board in approving the head of estimates concerned would not be violated;
- (d) the authority conveyed to the Executive Secretary/ Permanent Secretary by the approved Estimates is limited to the amounts provided under each subhead in the recurrent expenditure of the approved estimates. No expenditure on any subhead of the recurrent estimates in excess of the provisions in the approved Estimates or Supplementary Estimates will be authorised by any officer controlling a vote without the prior approval of the Board. Such approval will be sought by means of an application to the Board for supplementary provision;
- (e) Any unspent balance of recurrent expenditure vote lapses at the end of the financial year;
- (f) Finally, officers controlling votes are personally responsible for ensuring compliance with the above regulations.

16.18 The Federal Government grant to the FCT programmes and, to some extent, the money realised from the layout fees were considered adequate to finance the public investment in Abuja and the FCT (at least up to 1982).

16.19 The FCDA was unable to meet its staff requirements locally, therefore, experts were recruited from all over the world, including the Americans, Japanese, Britons, Indians, Phillipinos and Ghanaians.

16.20 The other important element of the policy decision is its standards. The standards demand how goals shall be implemented. Besides standards derived from legal instruments, technical standards for the implementation of the FCT and Abuja projects are contained in the FCDA Technical Reports Number 5 and the Development Control Manuals which provide guidelines for development. The Executive Secretary or Permanent Secretary issues circulars and directives from time to time in respect of programme implementation or staff conduct in the Authority. Standards are meant to help in the assessment of the quality, clarity, consistency and accuracy of the FCDA and FCTA level of direction.

Communications:

16.21 The standards need to be communicated to those in charge of executing the policy. Policy standards cannot be complied with unless they are communicated with sufficient clarity so that the implementers will know what is required of them. In the FCT/Abuja context two levels of communication exist - between the Federal officials in the Office of the President and the FCDA authorities and between the FCDA/FCTA authorities - the Ministers, Permanent Secretary and Directors - and the implementors - the staff, consultants and contractors. Though the two levels of communication are important, the communication that goes on between the FCDA/FCTA authorities and the implementors is discussed here. Communication between the authorities and the implementors depends on a number of factors - the knowledge of the standard being communicated, the relationship between the communicator and the implementor, and the interpretations of the standards, advice and orders to the

implementors. The advice is expected to be in a two-way direction, from the heads of departments to their subordinates or vice versa on what is expected to be done to effect implementation. Orders are usually from the Ministers, Permanent Secretary and Directors of Departments to their subordinates, contractors or consultants. Demolition of unpermitted development, allocation of plots, proper accounting and others could be such orders.

Enforcement:

16.22 Successful execution of the FCT and Abuja programmes requires mechanisms and procedures whereby the federal government on the one hand and the FCDA and FCTA on the other may increase the likelihood that implementors would act in a manner consistent with the policy standards. Norms,¹ incentives and sanctions are used as mechanisms for enforcement. But their application differs according to different contexts in order to achieve adherence to the organizations' rules and objectives.

16.23 The implementation of the FCT programmes by the Federal Government headed by the NPN political party is an act of faith. This explains the relationship between the Federal Government and the authorities at the FCT. The Federal Government has not so far employed any coercive form of power on the FCDA, except in the issue of a fraud of N15.0 million (E12.75 million) involving the Administrator of the FCTA and some of his staff (Section 16.44 below).

1. Norms are defined as incentives for socialization, persuasion, cooptation of officials either from the Federal, State Ministries or the Local Areas.

16.24 The President and some members of his government in 1982 used on-site visitations, and consultations, to determine the areas the authorities at the FCT were required to make improvements. Public opinions, newspapers, radio and television have become vital instruments to force public agencies, such as the FCDA, to react. The Federal Government had been able in the past to reassign some of the Federal Ministries' staff to the FCDA and intervene on behalf of the authorities at the FCT in cases like boundary delimitation between the FCT and the adjoining states and compensation for the displaced people in the Territory.

16.25 At the level of the FCDA/FCTA norms have been used to encourage implementation. Murphy (1971), Lazin (1973), and Pressman and Wildavsky (1973) agree that norms are a common form of enforcement. The FCDA holds coordination meetings and plan review meetings attended by the consultants, contractors and officials of the FCDA to discuss problems and areas that require attention.

Dispositions of Implementors:

16.26 The success or failure of the FCT and Abuja programmes was attributed to the level of support enjoyed within the Authorities responsible for implementation. Therefore, the implementors must possess the knowledge to enable them to carry out specific assignments. In most cases the required knowledge was not there. The FCDA recruited the implementors without clearly ascertaining whether they possessed the required knowledge and experience to execute the assignments. Retaining the Contractors and Consultants who could not perform the

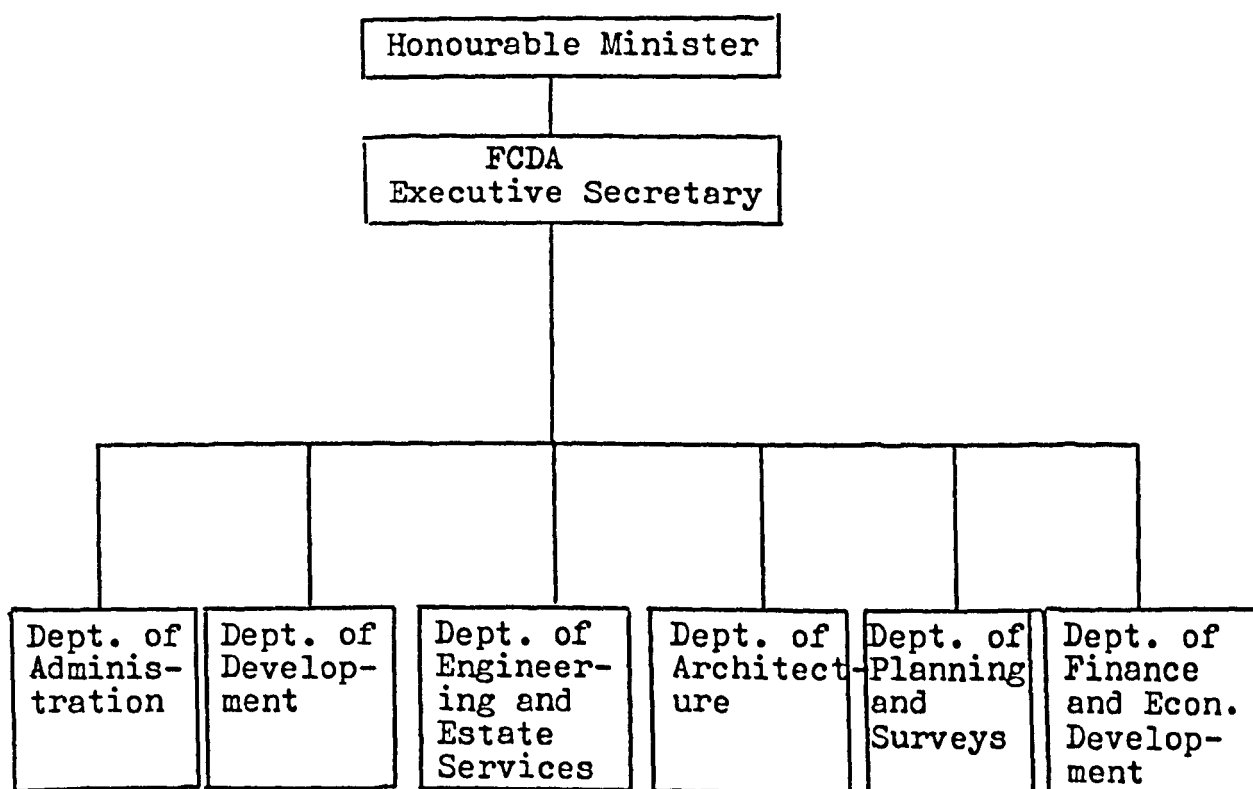
assignments was explained by two possibilities - either the Consultants and Contractors paid their way to be retained, or they were retained by the Authorities for personal reasons which often worked against the agencies' probability of achieving the policy objectives.

Characteristics of the FCDA and FCTA:

16.27 The formal and informal attributes of the FCDA and FCTA influence their ability to execute the policy standards. In spite of the attitudes of the staff, certain features of the agencies' staff, such as appointing directors from one ethnic or cultural group, agency, structure and relations with other officials and units of the federal or state governments affected the implementation of the FCT and Abuja programmes. One immediate factor was that the two agencies lacked experience and competence of the staff to perform the task of building a capital city. Foreign expertise employed did not provide solution. The Nigerian staff was ill-managed because of ethnic and cultural differences. Perhaps one cannot expect a high level of performance from a geography graduate being appointed the chief engineer or a health planner appointed a principal physical planner, for example. The law (Decree No. 6, 1976) defined the responsibilities of the FCDA which included selection of site for the Capital City, preparation of a Master Plan for the Capital City, provision of municipal services, establishment of infrastructural services and the coordination of the activities of all ministries, departments and agencies of the Government of the Federation within the Capital Territory. The Federal Capital Territory Administration was not covered by the provisions of this Decree. However, it was delegated with the responsibility of providing for education, agriculture, administration, health, works and finance to the rest of the Territory.

16.28 Based on Section 5 of the Decree, the FCDA was subdivided into six departments including the Department of Administration, Department of Engineering and Estate Services, Department of Architecture, Department of Planning and Surveys and the Department of Finance and Economic Development. Land matters were transferred to the office of the Executive Secretary whose duties at the moment are being performed by the Permanent Secretary of the Ministry of Federal Capital Territory Administration. These are illustrated in Figure 16.3.

FIGURE 16.3: THE ORGANIZATIONAL STRUCTURE OF THE FEDERAL CAPITAL DEVELOPMENT AUTHORITY



16.29 Each department is headed by a director who might be recruited from outside the FCDA or promoted from the personnel. Formally specific assignments were to be made

to specific departments and specific officers depending on their expertise and experience, to ensure effective implementation. The interrelationships between the FCDA and other federal government departments and neighbouring states were also guaranteed by the Decree.

Political environment:

16.30 The FCT programme enjoys a healthy political environment under the NPN federal government administration. The doubt is, if any other political party comes to power, whether it will continue to enjoy it.

16.31 Nonetheless, the situation does not rule out the political pressure on the FCDA/FCTA to carry out some actions which may be detrimental to the overall achievement of the plan objectives. Contracts were awarded on political patronage, not on ability to perform efficiently. Plot plans were amended without reference to the original concept of the plan, either to satisfy political pressure or for personal aggrandisement. However, in most circumstances of the political pressure, idealists had to comply with those who could determine their continued stay in office, even though such compromise would not help the orderly implementation of policy objectives.

Economic and social conditions:

16.32 To succeed, the FCT and Abuja programmes require economic conditions which would make money available for project implementation in time. Such conditions were present between 1979 and 1980. However, they had the effect of attracting two groups of people, first, the high calibre of personnel that were available who would

like to earn money for good services and, secondly, otherwise the negatively oriented officials who saw in Abuja the opportunity to enrich themselves. The only check to financial mismanagement in the FCT is through the internal auditing. The responsibility of the unit is to check payment vouchers, payroll, physical verification of supplies, revenue receipts, stores, and accounting books, general accounting and other management procedures. The responsibility of all payments is placed on the Director of Finance or his representatives or from petty cash imprests authorised on his behalf. In addition, there are the banking arrangements. All arrangements with the Authority's Bankers shall be made through the Director of Finance or his representative. Any instructions given to the Authority's Bankers on the opening or operating of accounts shall be accompanied by a certified resolution of the Executive Management Committee. Lastly, where banking facilities are arranged by the Authority's staff on behalf of the organization or projects in which the Authority is involved, the advice of the Director of Finance and Economic Development or his authority representative shall be sought.

16.33 The existing mineral resources in the FCT are limited to building stones which are evenly distributed throughout the Territory. Mining is limited to those that would not degrade the landscape. The types of economic resources within the community influence the kinds of services that are offered and their importance. For example, in hilly areas animal husbandry is encouraged while in fertile areas farming is being developed. Quarrying has been allowed in localities that have building stones.

The Policy Performance up to 1983:

16.34 Many agencies engaged in large scale federal programmes follow various methods of implementation consciously or unconsciously because the initial decision failed to make them a part of the process of achieving the plan goals or they are allowed to be affected by lack of regularity or comprehensivity. It is easier to find out when agency does not internalise a comprehensive method of solution primarily through the type of problems it encounters and how easily those problems are faced. If a method becomes part of the development process an agency can hardly be caught unaware by uncertainties.

16.35 The degree to which the observed variables are internalised in the day to day implementation of the FCT programmes has effect on the outcome of the planning action which is illustrated in Figure 16.4. Various people hold different opinions about the outcome of the implementation of the FCT/NFCC programmes so far. To the optimist, it will be a laudable achievement, for instance, once a "poor" planning officer at the FCDA boasted at the end of his coordination assignment for one of the district planning projects, that nobody in the department could have done the work better than he did - a very efficient job indeed. But within a few months it was discovered that the schedule which he used and originally prepared by the planning consultants, was superseded with another on which the final allocation of plots was made - the latest being prepared by the land surveyor - as a consequence there were double allocations and a confused documentation. If both planner and surveyor had coordinated their assignments aimed at achieving the policy objectives, the planner would have appeared to people what he considered himself to be.

16.36 The problem of understanding those variables that affect implementation of planning action is that of the head of the agency, department or a unit of implementors. It would be dangerous to wait until the problems start to affect the outcome of implementation before a solution is found. A number of questions would be necessary for any leader of a group of implementors to find out what measures he would employ to counteract unanticipated negative outcomes of human behaviour. These include:

- (i) What are the objectives of the policy?
- (ii) Is the structure of the organization adequate enough to bring out the best in the staff to achieve the policy objectives?
- (iii) What type of individuals are found in the organization? (This question is important for the leader to adopt various methods of dealing with different cases).
- (iv) What relationships will the organization have with other organizations?
- (v) What must be done in the event that there is a persistent breach of orders and regulations?
- (vi) What are the likely pressures an organization or a unit of an organization will have in carrying out its functions?

Not until a leader of a group is able to answer all these questions and many others pertinent to a particular situation, will he be able to organise and motivate his subordinates to strive toward the achievement of the plan objectives. The end product, as in Figure 16.4, is no precise formula that can be employed to explain (in any strict sense) the observed results; rather it can be

used to extract a better understanding of the process and of those factors that facilitate or hinder policy performance.

FIGURE 16.4: PLANS' ACHIEVEMENT AT THE END OF 1982

Level	Responsible Authority	Project Title	Performance
FCC	FCDA	ADCP	500 dwelling units, infrastructure construction, site clearance and earth-work, drainage, road, footways, car parks, water service, electrical power work, post and telecommunications. By the end of 1982, 1000 d.u. were ready.
	FCDA	N.W. District	3,208 dwelling units, infrastructure construction, site clearance and earth-work, drainage, road, footways, car parks, bridges, water service electrical power work, post and telecommunications, etc. By the end of 1982, 500 d.u. were ready for occupation.
	FCDA	Presidential Guest House	Completed and it provides accommodation for the President and his staff and his visitors.
		Presidential Complex	To be completed by September, 1983
FCDA	Nyanya Labour Camp	500 low cost housing for junior workers were completed and occupied.	

FIGURE 16.4 (Contd.)

Level	Responsible Authority	Project Title	Performance
FCC	FCDA	Life Camps	75 dwelling units originally meant for staff on the site, but were now occupied by the FCDA top officials.
	FCDA	Karu New Town	One district is being developed, infrastructure construction, site clearance and earthwork, drainage, road, footpaths, car parks, water service, electrical power works, post and telecommunications; 200 d.u. to be ready by October, 1983.
FCT	FCDA	Gwagwalada New Town	522 dwelling units were started in 1980; and by 1982 only 200 were ready.
	FMHE	"	598 d.u. None was ready by the end of 1982.
	FCTA	6 Development Area Headquarters (excluding Gwagwalada)	500 dwelling units were proposed. Only Bwari and Kwali had completed 28 d.u. each by the end of 1982.
FCC	FCDA	FCDA Office Complex (ADCP)	Completed by 1982
	FCDA	NWD Office Complex	Being constructed by 1982.

FIGURE 16.4: (Contd.)

Level	Responsible Authority	Project Title	Performance
FCT	FCTA	Office Complex	Completed by 1982.
	FCTA	Court Houses	Court complex being constructed in each Development Area headquarters - will be ready by the end of 1983.
FCC	FG & Private	Sheraton Hotel	650 beds nearing completion. 1983 was the target date.
	Nikon Hilton	Hotel	1000 beds being constructed.
FCT	FCDA	General Hospital at Gwagwalada	2,300 bed hospital being constructed in 1982.
FCC		Health Centre ADCP District Centre	25 bed health centre to be ready by 1983.
		Post Office at ADCP	District Centre Post Office being constructed 1982.
		ADCP Landscaping	Tree planting completed by the beginning of 1983.
		Abuja International Airport	Completed and started operation in 1982
		Jabi Dam	A N14.9 million (E11.9 m) dam completed and was commissioned on 6 June, 1982. It has a capacity of six million cu.m.

FIGURE 16.4: (Contd.)

Level	Responsible Authority	Project Title	Performance
FCC	FCDA	Lower Usman Dam	Being constructed and to complement the Jabi Dam up to 1995. It is a much larger Dam than Jabi Dam.
		Airport Expressway	Completed in June 1982.
		Outer Northern Expressway and Ring road 1 North	Completed May 1983.
		ADCP and NW Districts Local Roads	Completed June 1983.
		Central Mechanical Workshop	Started functioning
	Grumstag Engineering Ltd.	Industry	Industrial Precast Factory started operational 1981
	K.Chellarams	Industry	Industrial Manufacture of Refrigerators, Air conditioners, being built.
	NICOHO	Industry	Assembly Factory by the Nigeria Constructions and Holdings Company - being built 1982.
	IMFD	Industry	Industrial Manufacture Flush Doors - by Trade and Finance Exchange (Nigeria) Limited located in Industrial Area 1A.
	INNOKO	Industry	INNOKO (Nigeria) Limited started producing building blocks
	ACI	Industry	Industrial Manufacture of pipes located.

FIGURE 16.4: (Contd.)

Level	Responsible Authority	Project Title	Performance
FCC	Systems Metal	Industry	Industrial and the Manufacture of Aluminium Metal
FCT	AIC	Industry	Industrial (Furniture Factory Carpet) by Afro-International Construction Ltd. located at Gwagwalada
	SCOATRAC	Industry	Industrial - Heavy machinery and servicing located
	Alfonso and Co. Ltd.	Industry	Precast Concrete Plant - started to function in 1981
	ALUKU	Industry	Industrial Concrete Products by Aluku Nigeria Enterprises started production.
	Alhaji Z.K. Mala & Sons	Industry	Furniture Factory located at Gwagwalada
	Obasi Brothers	Industry	Aluminium sliding doors and windows - by Obasi Brothers Merchant Co. Nigeria Limited - located at Gwagwalada
	EXCEL	Industry	Plastic pipes and fittings and other plastic products located at Gwagwalada
	A.G. Ferrero & Co. Ltd.	Industry	Manufacturing of pipe culverts, sandcrete blocks - located at Gwagwalada
	Alhassan Dantata & Sons	Industry	Manufacturing of blocks and building materials - located at Gwagwalada
	AMRCN	Industry	Manufacturing of Aluminium building components located at Gwagwalada

FIGURE 16.4: (Contd.)

Level	Responsible Authority	Project Title	Performance
FCT	Mafdo (Nigeria) Company Ltd.	Industry	Manufacture of concrete pipes, poles, etc. - located at Gwagwalada
	Nigerian Bottling Company Ltd.	Industry	Bottling Plant for soft drinks, offices and depots located at Gwagwalada - being constructed
	ELDORADO	Industry	Erecting Factory - located at Gwagwalada
	MF(NIG.) Ltd.	Industry	Expansion of metal furniture industry and electro plant and other steel industry located at Gwagwalada
	Supreme Group of Company Ltd.	Food production	Bakery located at Gwagwalada
	Dywidag	Industry	Precast Factory - located
	Messrs. NABIICO Ltd.	Industry	Block moulding - located at Gwagwalada
	Mustafa Danrak & Sons	Industry	Block moulding - started operation at Gwagwalada
	F.G.N.Okoye and Sons	Industry	Located at Gwagwalada
FCTA	Agric. Division	Workshop and Extension Service - being built at Gwagwalada	

Source: The FCDA Official Record on Land Use Allocation 1981.

Critical Analysis:

16.37 Given the outcome of the implementation of the FCT and Abuja programmes after five years (1979-1983) the principal question is why the performance of the FCDA and FCTA differed from expectation? After one of such on-site visitations by representatives of the National Assembly, the National Concord Newspaper of June 6, 1982, had this to say:

"But after a tour of the foetal city, the initial rush of surprise mingled with euphoria dims perceptibly and a creeping feeling of whether the scheduled September movement by the President from Lagos is realistic sets in gradually. This is because of the fact that nothing that has been put on the ground that bears out the optimism of those who stoutly defend the September target".

Horn and Meter in their study of intergovernmental relations in the United States, identified cognition (comprehension) of the policy standards, the direction of their response towards standards and the intensity of their response. Petrick observes, "this stems from the fact that human groups find it difficult to carry out effectively acts for which they have no underlying belief" (Nagel, 1977 (ed.), page 113). Judging from the Nigerian press and public criticisms and supported by the author's field experience, a number of factors were identified within the system and which could affect the results of the implementation of the FCT and Abuja programmes. These included: lack of adequate knowledge of policy standards, selfishness and love to get rich quickly and indifference. These compare favourably with Horn and Meter's findings and will, therefore, form the criteria for further analysis.

16.38 In reflecting the federal character of Abuja, efficiency was sacrificed for equality. Initially, lack of qualified Nigerian staff led to dependency on foreign experts. Subsequently, the number of staff of the FCDA and FCTA had been increased substantially by recruiting Nigerian personnel. Local recruitment and appointment to posts followed the existing institutional arrangement. Obvious developments within the Authorities showed lack of adequate utilization of the available human resources. Assignments to duties requiring high level of expertise were made to inexperienced and incompetent officers. The foreign experts were quite helpless to effect any change of policy. The consequence was a poorly led and incapacitated staff organization which could hardly conduct effective programmes. Incompetent staff cannot communicate standards to subordinate staff who might be more experienced than they or even comprehend standards when they are communicated to them. Abuja's experience negatively supported the hypothesis Number 3 in Chapter 2. The messages can be well transmitted or distorted intentionally or unintentionally and can affect the implementation of such advice, or orders. Messages are expected to be made accurate, clear, consistent and timeless. Not every person is able to do this, that is the problem. Even with full knowledge of the standards, successful execution was undermined when some of the officials were not aware that they were not in full compliance with the law. For instance, the Land Use Decree (Chapter 11) specifies the amount of land a Nigerian is entitled to be allocated in an urban area. Many Nigerians demanded more and got more. The irony was that the Authority that was meant to protect the law through its officers helped to break it.

16.39 In most of the accelerated developments in the FCT and Abuja the standards were disregarded. Plot sizes were disregarded in the ADCP and North-west District. At Gwagwalada sites were misappropriated for religious purposes without reference to the number of people per religious site, or even in disregard of the land uses the sites of which were misappropriated. In the ADCP inexperienced builders were employed who could hardly read plan dimensions or determine quantities of component units for the preparation of mortar. The result was poor finishing of the houses. The Nigerian public rightly place emphasis on the poor conditions of much of the housing stock in the ADCP and also remind the FCDA officials of the need to improve them.

16.40 The FCDA and FCTA attempted too many programmes at the same time to be efficient. As from 1981 the NFCC, Gwagwalada New Town, Nyanya Labour Camp, various Life Camps, and Karu New Town were started to be implemented. Various scales of housing developments were carried out in each of the seven Development Area Headquarters. Surely the Authorities' effectiveness was affected.

16.41 Selfishness and desire to get rich quickly of many of the project implementors form the second factor militating against the policy implementation in the FCT and Abuja. To many Nigerians money has become an end and not a means to an end and, therefore, should be possessed by whatever means at their disposal. The tendency to get rich fuels their instinct of self-possession, selfishness and fraud. However, by 1983, the FCDA with five years to its credit should by all accounts stand to be judged with every amount of scrutiny on how it has handled the taxpayers' money entrusted into its care. The Abuja Multicity Project cost has jumped

from the initial estimate of N9.5 billion (£8.08 billion) to N11.0 billion (£9.35 billion), an increase of 23 per cent within five years. The Minister's press report in June, 1982, put the total expenditure so far to N717.00 million (£609.45 million).

16.42 During the period under review (1978-82) the main function of the Authority had been planning and administration which might relatively cost less than the full scale implementation of the projects.

16.43 Both well-meaning individuals and the opponents of the FCT programmes had expressed concern about the management of the Federal Government grants for the implementation of the programmes. A recent case of financial mismanagement involving the staff of FCTA is a striking revelation of the inadequacies of the financial arrangement for the development of the FCT.

16.44 A fraud of N21.0 million (£17.85 million) was alleged to have been uncovered in the office of the Administrator, but the Minister, Ero Dan Musa, in charge of the Ministry of Federal Capital Territory Administration admitted a fraud of N15.0 million (£12.5 million). In addition to the Administrator, several networks of officials of the MFCT and contractors were alleged to have colluded with the Federal Pay Office officials in Kaduna to embezzle over 150 million naira from the estimates approved by the National Assembly for the development of the new federal capital within the last two years (Sunday Triumph, 19 December, 1982).

16.45 While the investigation into the fraud charge was going on, the building housing the Audit Department of the FCTA was burned down by fire on 14th December, 1982, and

on 27th December, 1982, the salary section of the Accounts Department of the FCDA at Suleja was razed to the ground by fire.

16.46 These two fire incidents might not have been caused by the same people, but questions arise as to why all the burning down of houses affected only the financial units and why did they occur at no other time than when investigations on mismanagement of funds were going on? Investigations by the Sunday Triumph revealed that files of documents had been reduced to ashes. All drawers of cabinets had been thrown open indicating that every single document, including those in safes, had either perished in the fire or had been removed before the conflagration. One can argue that destruction of the accounts offices by fire was intentional.

16.47 Over N1.0 million (E.85 million) was reported to have been discovered in the bank account of one of the suspended accountants of the Federal Capital Territory Administration who was on a salary of Grade Level 12 (N8034-N8682 p.a.) or (E6828.9 - E7379.7 p.a.) and had only worked for the FCTA since July, 1982. Also a Higher Executive Officer with the same department was allegedly involved in the fraud and had already been suspended from work (Sunday Triumph, 19 December, 1982).

16.48 In the FCDA where a loss of about N14.00 million (E11.9 million) was being investigated, a bank account of an officer of Grade Level 03 (N1572 - N1824 p.a.) or (E1336.2 - E1550.4 p.a.) in one bank at Suleja who worked with the Accounts Department was said to read NO.3 million (E0.26 million).

16.49 A walk across the Territory would reveal hundreds of useless culverts built at an estimated cost of N4000.0 - N5000.0 (£3400 - £4250) each. A 45 kilometre Airport Road was constructed at the 1981 price for N41.0 million (£34 million), a 90 hectare plot of land was cleared with N180,000.00 (£153,000); and N6.0 million (£5.1 million) was alleged to have been used for bush burning for resettlement purposes. The most unfortunate thing was that no standard was referred to at any time of contracting these jobs, but surely there ought to be one.

16.50 The cause of all this financial mismanagement of monumental dimensions is likely to be from the type of financial system which is operated in the FCT programmes. Nobody takes the responsibility to call for a check. In consequence, many of the FCDA and FCTA contractors could no longer be paid easily and because of that many of the projects are either suspended or abandoned by the contractors. With the poor economy in Nigeria, and the Federal Government commitment to implement the programmes at the FCT, what are the possible alternative sources of fund?

16.51 Finally, indifference among the FCDA and FCTA staff is traced to reaction against discriminatory promotion of officers and assignment to duties which were allegedly based on places of origin of individual officers or political patronage. Less intense attitudes may cause implementors to attempt surreptitious diversion and evasion (Lazin in Nagel (ed.) 1977, page 113).

16.52 The official attitude has great impact on the contractors and their performance. Officers in the FCDA who had in the past complained against actions of some contractors and received in return a rebuff or rebuke from the Authority or been reassigned to a much lower job became cautious and indifferent to subsequent attitudes and performance of the contractors and Consultants. When an officer of the FCDA was asked why he should allow a contractor with poor quality work to be paid, he said: "Brother, if you say all you see at Abuja, you will be sent packing".

16.53 To some of the expatriate staff, much depends on their assignments with respective departments. For instance, in 1981, a team of Phillippino engineers, surveyors, architects and planners who were recruited by the FCDA, remained undeployed for more than six months while they were duly paid. That had its cost effect on the FCDA. The experts, no doubt, suffered personal costs of feeling underemployed. No wonder some of them went back to their country without having to complete their contract periods.

CONCLUSION:

16.54 The performance of the FCDA and FCTA at the first five years was considered as a failure by many Nigerians because housing production output and quality were poor, much more money was spent for much less investment and the obvious financial mismanagement brought to the focus all the criticisms of the Federal Government's role at Abuja.

16.55 The internal performance of the FCDA and FCTA has not been considered encouraging by some of the staff. To them appointments to senior posts have been based not on experience and qualification, but on place of origin and political patronage. Rewards for efficiency or punishment for offences were influenced by institutional considerations. The apparent failure to match performance with expectation is seen as not the failure of the physical plan, lack of resources, inadequate standards, lack of communication between the Federal Government and the FCDA or inadequate number of implementors, but the institutional weaknesses of the Nigerian society which have been allowed to influence actions at Abuja. Because of the internal weakness of lack of adequate knowledge, selfishness and desire to get rich quickly by most of the staff and indifference of most of the highly experienced and qualified staff, anticipation of and reaction against uncertain occurrences in planning and implementation were different from expectation. Therefore, there is great doubt that the policy objectives will be realised in the year 2000 unless there is a re-thinking not only by the Federal Government, but by all Nigerians engaged with the implementation of Abuja programmes. The change will first come from the Federal Government's realisation of the present weaknesses of the FCDA and FCTA and then to seek concrete ways of changing the structure of the two agencies.

17 UNCERTAINTY AND OTHER CAPITALS

The assessment of the handling of uncertainties draws examples from various capital cities, identifies common characteristics of the plans, assesses how those plans had handled the various uncertainties and lessons to be learnt for reducing them, namely, through improvement in the decision-making techniques and diversification of sources of revenue. Particular attention is directed to the capital plans of Chandigarh, Brasilia and Islamabad.

17.1 In the past, studies of capital cities have focussed on the objectives of the plans¹; on the planning process²; on the factors leading to the creation of the capital cities³; on the social aspects⁴; or on the architecture and urban design⁵. Few attempts have been made in studying cases of uncertainty in the planning process; case studies exist of Milton Keynes (Marsh, 1979), though Milton Keynes is not a capital city, and of major planning decisions (Hall, 1980). Some of the decisions studied by Hall were implemented, such as the Anglo-French Concorde, the San Francisco Bart System and Sydney's Opera House, while others do not exist like the Third London's Airport and London's Motorways.

17.2 It is surprising to find that little attention has been given to the uncertainties that surround the planning and implementation of contemporary capital cities, although the long history of new towns might have indicated many lessons of the dangers of blind faith in physical master plans.

17.3 This chapter will focus on the agencies that are involved at each stage of decision-making, the extent each agency influences the development process as a whole, the resources and the socio-economic assumptions at the various levels of complexity of the planning process. The main concern will be on the created capital cities of Chandigarh in India, Brasilia in Brazil and Islamabad in Pakistan. Examples will be drawn from other newly created capital cities or other cities as much as information is available.

1. Robinson, Albert J., 1973.

2. Doxiadis, C.A., 1965.

3. Stephenson, Glenn V., 1970.

4. Epstein, David G., 1973; Sarin Madhu, 1982.

5. Evenson, Norma, 1973.

17.4 The selection of the case studies has been based on the fact that the decision to develop Abuja resulted from similar decisions by the three nations to shift government functions away from older and more settled regions to lesser developed regions in the interior. This is an attempt to comprehend the uncertainties which characterise the development of capital cities.

17.5 Chandigarh, Brasilia and Islamabad incidentally are found in the Third World Countries where undeveloped economy and low technology have complicated the consequences of uncertainties in development processes.

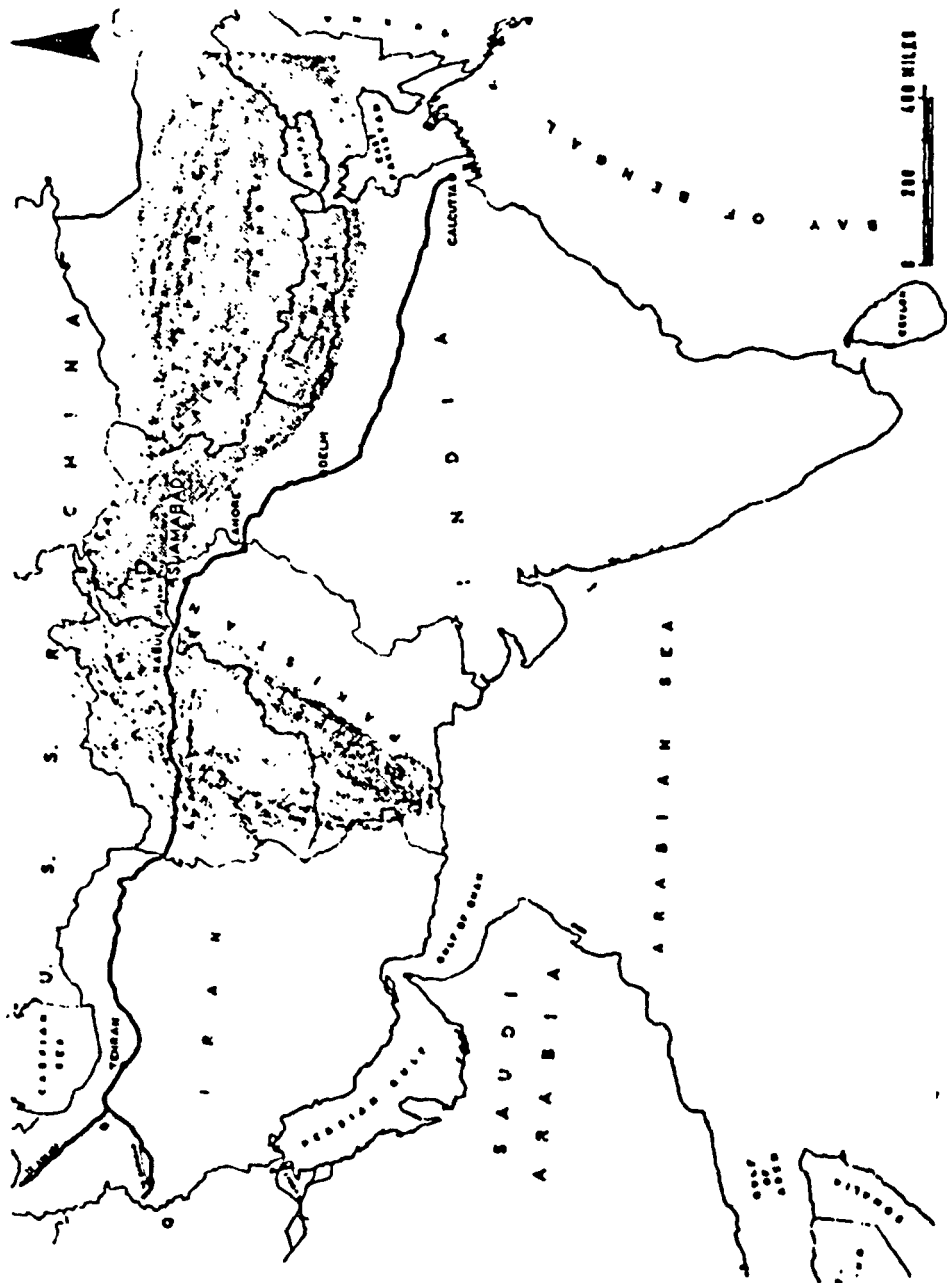
17.6 Secondly, the various ways these capital city plans, including Abuja's, handled uncertainties will be compared, and finally, possible solutions to uncertainties that surround the development of newly created capital cities will be reviewed.

The Case Study 1: Chandigarh

17.7 Chandigarh new city was a creature of circumstance. The new independent state of India had yet to find its feet after so many years of British colonial rule when the country was torn within by religious and political conflict. As a result of political instability, a new state of Pakistan was carved out of old India. The immediate problems were to resettle displaced people after the province of Punjab was split between India and Pakistan. Among those to be resettled was the provincial government itself, which was uprooted from the provincial capital of Lahore now enclosed within the borders of the new state of Pakistan, as shown in Figure 17.1.

APRIL

FIGURE 17.1 INDIA AND PAKISTAN



17.8 Secondly, on the Indian side there was the problem of inadequacy of existing facilities and, therefore, a new place where adequate facilities could be provided was required to meet the demands of the migrants. India itself had pride to protect as well as an image to project after the newly gained national consciousness. Sarin (1982, page 13) observed that the building of a new city took on additional significance; not only could it provide a suitable seat for the displaced government, but it could become a symbol of the new national consciousness and thus a focus of hope and reassurance for the suffering refugees. Much of the impetus for the new city project came from the enthusiastic support of the prime minister, Nehru, who said of Chandigarh:

17.9 "Let this be a new town, symbolic of the freedom of India, unfettered by the traditions of the past, an expression of the nation's faith in the future", (Evenson, 1966, page 6).

17.10 What this means is that the development of the city of Chandigarh received political support from the outset. This also assured its financial support from central government.

17.11 Considering the circumstances of its creation, the resettlement of the displaced people and government were perhaps the only terms of reference on which Chandigarh could have been established.

The Agency:

17.12 Initially two Indian officials were in charge of the project: P.N. Thapar, a former member of the British Civil Service in India, and P.L. Varma, the Chief Engineer of Punjab. The first task of these two men was to choose a site for Chandigarh. This was literally done by flying over various tracts of land, and finally a site which situates close to a road junction and a railway line was chosen. Another site advantage was the availability of building materials, such as sand, cement and stone.

17.13 The next concern of these men acting for the provincial government of Punjab and the Government of India, was to appoint planning consultants. The planning of the town was originally entrusted to Albert Mayer of Mayer, Whittlesey and Glass of New York. In December, 1949, the contract of the first Master Plan of Chandigarh was completed, but the death of Albert Mayer's architect, Matthew Nowicki, made it necessary for Thapar and Varma to search for other architects who could implement the Master Plan. The problems experienced with having the planner based in New York when a local technical organization barely existed, led to a change in the terms of agreement with the second team (Sarin, 1982, page 39).

17.14 The new team which was recruited from Europe consisted of Le Corbusier, as the Architectural Adviser, and Jane Drew, Maxwell Fry and Pierre Jeanneret; all of these were architects. This might imply that the planning input must be insignificant.

17.15 A contract with the new team was signed on December 19, 1950, which marked the end of Mayer's plan

for Chandigarh. It is easy, therefore, to see in the shortcomings of Chandigarh the reflection of a too limited approach to city planning, one which from the beginning conceived of the task of founding a new community only in terms of site layout and architecture. The abandonment of Mayer's Master Plan had also cost implications for the Government of India.

17.16 The new team was temporarily settled at Simla, the hill station, which was not considered sufficiently central for a permanent site and was accessible only by a long and tortuous ascent, especially difficult when the roads were blocked by winter snows (Evenson, 1966, page 6).

17.17 As activities increased, the Capital Project Organization (CPO), a semi-autonomous development authority, was created by the Punjab government to develop and manage the city of Chandigarh. The first function of the CPO was to control and regulate the growth of the city in accordance with the Master Plan. This implied the control of speculative purchase of land and to assure this, a condition was attached to the sale of all private plots that construction must be completed within three years of the date of purchase.

17.18 The second function concerned public intervention in the urban land market. This involved the modification of a situation in which land prices went beyond the reach of large sections of the population, to control unearned incomes from increased land values going to property owners without any benefit to the community. (Sarin, 1982, page 59). However, the way the CPO could do this was not spelled out.

17.19 Thirdly, the CPO had to certify house plans before development could begin and no occupation of premises was allowed until a 'completion certificate' had been obtained from the CPO. The grant of this certificate would occur only after the premises had passed the desired standard of construction and services specified in the bye-laws.

17.20 According to the Chandigarh Development and Regulation Act 1952, the Chief Administrator of the CPO was vested with powers to frame bye-laws and issue instructions regarding building, land use, sale of developed plots, preservation of trees, regulation of outdoor advertisements, peripheral control and other related matters.

17.21 The CPO was not an elected body and, therefore, was not accountable to the people, but to the Punjab Government which appointed it. In view of that, decisions relating to local concern had to be left in the hands of far away central authorities.

17.22 The reorganization of the erstwhile State of Punjab into the states of Punjab and Haryana in November 1966 led to dispute over the ownership of Chandigarh. As a temporary measure, a Union Territory of Chandigarh was created where the two states as well as the central government of India could locate their administrative functions.

17.23 This temporary change in the status of Chandigarh led to two significant changes, first, the development, financing and administration of the city were transferred from the State of Punjab to the central government and the CPO was replaced by the Chandigarh Administration, a

part of the central government service. This meant changes in the levels of interaction between the implementing agency and other interested bodies, viz., the central government, the States governments of Punjab and Haryana and the local communities.

17.24 The delay in electing a municipal government left the Chandigarh Administration the function of both development and local government. The centralization of decision-making meant that even local issues were handled by officials not directly answerable to the public, neither did they have to depend on the popularity of their policies to remain in office. Minimum local participation was allowed through appointed local representatives, whose decision the Chief Commissioner was not bound to accept. This might not always mean that democratic processes were not allowed in Chandigarh's administration.

17.25 The Chandigarh Administration, like its predecessor, depended on the sale of land for over 50 per cent of its funding. Its semi-independence of either the Punjab State, Haryana State or the central Government for funds, was an advantage to its autonomy. For instance, according to projections in the late 1970s, the Capital Project was expected to be 'completed' by 1987. On its 'completion', it was expected to have cost Rs 950 million, out of which receipts from the sale of plots were estimated at approximately Rs 550 million (57.9 per cent), the balance being financed largely by central government (Sarin, 1982, page 81).

17.26 Still there were checks, for instance, most of budgetary allocations had to be in agreement with central government policy guidelines and had to be approved by the Planning Commission.

Resource assumptions:

17.27 Thapar doubted that the city would actually be built, a natural attitude in view of the many much more promising projects with which he had been associated and which had never been realised (Evenson, 1973, page 25).

17.28 In the context of Chandigarh city, land sale became the main source of revenue (about 57.9 per cent). The guiding principle in the financing of Chandigarh was the avowed belief of Le Corbusier that "city planning is not a way of spending money, but of making money and bringing in profit" (Sarin, 1982, page 59). In addition to the rehabilitation loans from the Government of India during 1950 to 1953, assistance from the Government of India during 1953 to 1956 and contribution by the Government of Punjab, the authorities adopted the policy of using the sale of land to finance the building of the new city.

17.29 Other infrastructural facilities such as water and electricity supply schemes were not added to the development costs as these were to be run on a self-financing basis. Sarin noted that the picture presented by the CPO, and which one Bhogal, H., an Indian on the staff of the FCDA and who had worked also in Chandigarh, confirmed in 1982 when interviewed, had continued to be projected with considerable force, was of Chandigarh, being in the main, a self-financing city. It was understood that the self-financing aspect was limited to the private sector, whereas such projects as government housing, were financed through the government subsidy. The estimates for such civic amenities became the basis for calculating the price of the developed land allocable to private developers. The irony is that private

financing was used to subsidise government spending, instead of the other way round.

17.30 In Chandigarh, all land within the plan area was acquired, and to be developed (provided the basic infrastructure) and sold by the Authority. Initially this involved 3611 hectares for 30 sectors and for the first phase. The second phase was slated to provide additional 17 sectors.

17.31 The financial strain of continuing the development compelled the Authority to change the land sale policy. The practice of selling residential plots at fixed prices was given up in favour of auctioning them to the highest bidder. Commercial plots had been auctioned more or less from the beginning. In 1972, the sale of both commercial and residential plots was changed from freehold to ninety-nine years leasehold and an annual ground rent of $2\frac{1}{2}$ per cent of the premium for the first thirty three years, $3\frac{1}{4}$ per cent for the next thirty-three years and 5 per cent for the last thirty-three years was introduced. In addition, 50 per cent of the 'profit' of the leaseholder (increase in value of the plot above the auction premium) through resale was to be paid to the Administration (Sarin, 1982, page 80).

17.32 The Chandigarh Administration's reliance on land sale as the main source of revenue is understandable. India has no oil resources yet and its GDP is so very low relative to world standard, that it could not depend on any other source under the prevailing conditions for an alternative source of revenue for financing its new city development.

Socio-economic assumptions

Population:

17.33 There were 24 existing villages or hamlets housing 9000 people at the site of Chandigarh for whom compensation was arranged and land set aside for resettlement. In turn, Chandigarh became a resettlement centre for people displaced from Lahore and other towns in Pakistan after the creation of the State of Pakistan.

17.34 Chandigarh was planned to accommodate 500,000 people, but no date was set to realise this size target. The planned population per sector varied from 5000 to 20,000, resulting in a hierarchic disposition from the rich to the poor downwards from the capital. The average population density for the whole city was 16.8 persons per acre, varying from 7 persons per acre for low-density sectors to almost 100 in the high-density ones.

Economic assumptions:

17.35 Albert Mayer observed that "Chandigarh was neither a centre of natural resources nor of a large purchasing area, nor was it at a natural and much used transportation crossroads or river confluence....." (Evenson, 1966, page 76). This showed that any economic proposal could hardly be based on the existing economic activities in the area.

17.36 On the other hand, Chandigarh was to serve as the seat of the Punjab provincial government. The government presence in the city would generate rapid and

largely spontaneous immigration and, in addition to the resettled population in the city and the large population would generate commercial and industrial activities.

17.37 Based on these considerations employment assumptions for all major sectors of the urban economy were made. These are illustrated in Figure 17.2 below.

FIGURE 17.2: PLANNED DISTRIBUTION OF EMPLOYMENT

Type of employment	No. of persons dependent on it
1. Punjab Government employees	50,000
2. Municipal employees	15,000
3. Domestic servants	20,000
4. Large concerns such as the railways, power house, transport, banks	15,000
5. Professionals such as medicine, law, building and teaching	15,000
6. Industry	15,000
7. Trade and commerce	20,000
Total	150,000

Source: Madhu Sarin, 1982, Urban Planning in the Third World. The Chandigarh Experience, page 57.

17.38 The distribution shows that 43.3 per cent of the labour force (categories 1 and 2) would be concerned with administration. These were followed by categories 3 and 7 with 13.3 per cent each. It is interesting in

a class conscious society that such a high percentage was allowed for domestic service. The majority of people (those employed in categories 1, 2, 3, 4 and 6, representing over 75 per cent of the total population) were to be dependent on fixed salaries, a large proportion with meagre ones. Little else was mentioned on how these figures were arrived at.

17.39 Le Corbusier located commercial activities at the central area and along the three V2 road networks which formed the major avenues of the city. The provision of local consumer goods and services was located in the residential sectors in a linear form. Similar to the location of the industrial site at the southern periphery of the plan, the University was located on either side of the grid iron and the capitol complex, the major employment centre, actually outside the main centre of gravity of the planned area, as illustrated in Figure 17.3 No information on the labour force requirement of the University was provided.

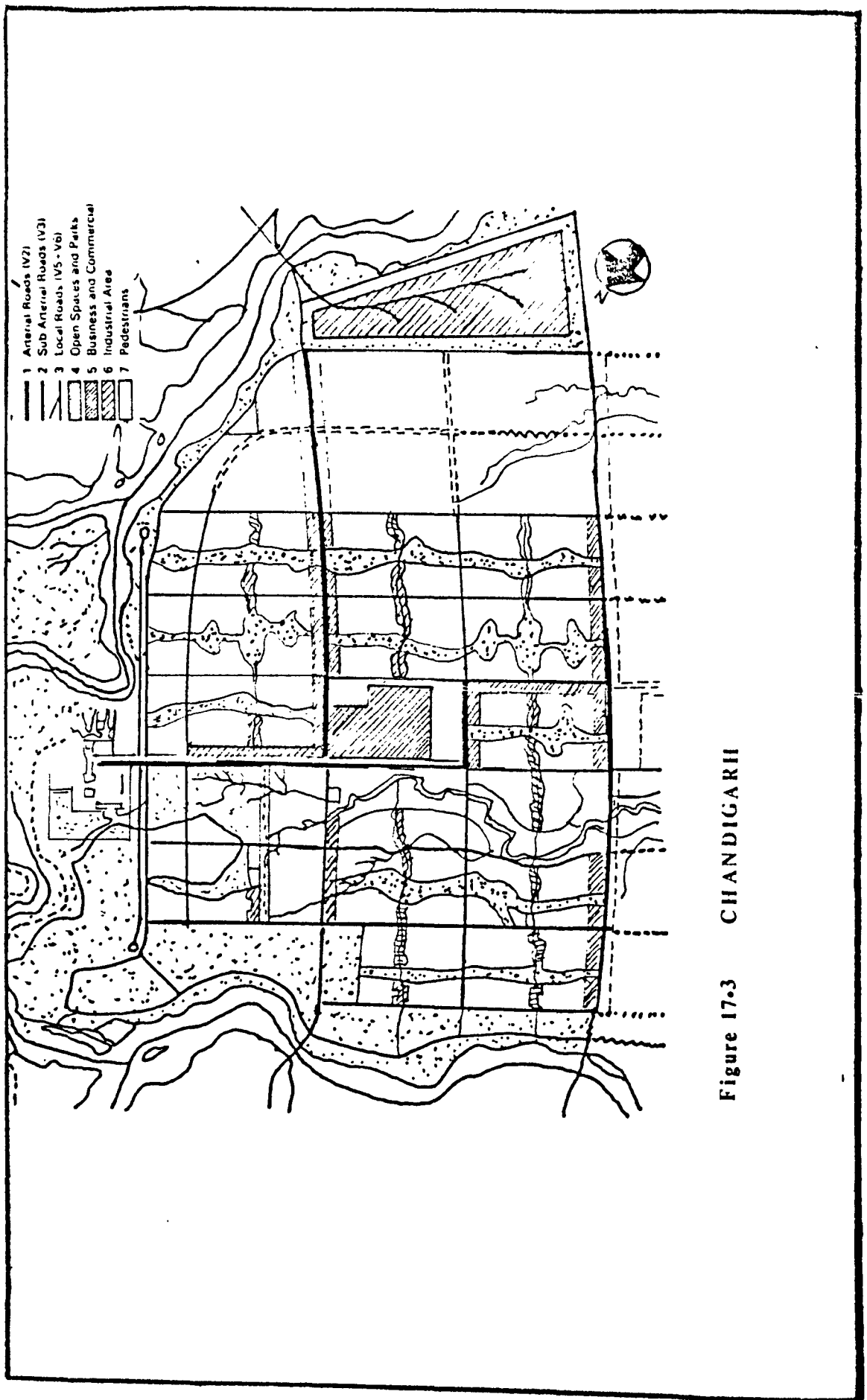


Figure 17.3 CHANDIGARH

Housing assumptions:

17.40 The responsibility of providing housing in Chandigarh was divided between the public and private sectors. Public housing laid emphasis on the provision of housing for government employees who occupied them on rental basis. In addition, housing was supplied on the basis of non-market criteria which differentiated it from private housing, which was expected to conform to the economic demands of the housing market.

17.41 The government adopted as its minimum standard, even for the poorer sections of the city, of a dwelling unit consisting of two rooms, a verandah/kitchen and a courtyard, equipped with piped water, water borne sewerage and electricity. The plan assumed that by adopting this minimum standard, conditions of overcrowding prevailing in most of the urban areas would be eradicated.

17.42 The type or cost of houses allocated to an individual was determined by his status in the government service, not by need. These varied from houses built for messengers at ₹244 (1982 prices) to houses for senior government officials valued at ₹4875.0.

17.43 The first group of public houses built were 3208 that represented 90 per cent of the permanent government employees. The rest of 10 per cent had to make private arrangements.

17.44 In addition, it was the government practice to rent the houses at a fixed rent of 10 per cent of the salaries of its staff. For a building to be classified as productive, it was necessary for it to fetch at least

6 per cent of its total cost. Since the cost of construction had risen considerably without any corresponding increase in the salaries of government employees, it was considered impossible to restrict the cost of houses to the capitalised value of 10 per cent of the pay of the occupant and, at the same time, provide him with 'reasonable accommodation consistent with his status' (Punjab Government, undated).

17.45 Furthermore, the maintenance costs of these houses were defrayed by the government and the calculation of economic rent was based on the 1927 formula, which meant that it did not reflect price and interest changes in the prevailing housing market in the 1950s.

17.46 The unit of land made available to the private developer was called a plot. However, plot sizes varied from 125 to over 5000 square yards, and the allocation to private individuals depended on how much the individuals wished to pay at competitive prices and the types of plots offered for sale.

17.47 Initially, a total of 20,251 private plots were made available to the public and were sold at a fixed price by means of lottery, in which the displaced people were given preference. The fixed price was based on the cost of development plus Rs 375, a down payment. For instance, a plot of 125 square yards would cost at a fixed rate $\text{Rs } 1500 + \text{Rs } 375 = \text{Rs } 1875$.

17.48 When the policy changed, allocation by lottery changed to allocation to the highest bidder and fixed prices changed to prices dictated by the market forces.

17.49 However, to promote private development, government loans on easy terms were made available to plot-holders. This means that loans were given on the condition that one had acquired a plot, but being in possession of a plot might not confer one with the right to government loans.

Non-plan settlements:

17.50 In 1971, according to the Chandigarh census report¹, the number of people who lived in 'non-plan' settlements was 23,864, which formed 10.91 per cent of the total population of Chandigarh in that year.

17.51 Sarin (1982, page 103) tried to distinguish 'non-plan' from 'unplanned, uncontrolled, or squatter' settlements. Whatever differences, if any, people attributed to each one of them is schismatic, however, and their common origin must be insisted upon. They emerged from people's response to a situation in which they cannot find themselves an authorised shelter.

17.52 The authorities in Chandigarh adopted a number of measures² to get rid of these unauthorised settlements, starting with demolition, then temporary accommodation and then to compulsion on squatters to acquire rented accommodation.

17.53 One of the largest of such settlements in Chandigarh was the area adjacent to Bajwada village to the south of sector 22.

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1. Census of India, 1971, Series 25 - Chandigarh, District Census Handbook, part X-B.
 2. P.L. Varma, Chief Engineer of the project, said that the 'squatters', and unauthorised developments on the periphery of the city, were serious problems requiring stringent action from the outset. (1958).

17.54 The CPO's attitude towards the non-plan settlements was based on the assumption that people can be moved around at will, irrespective of the effect of such action on community life, employment and costs. It also assumes that the Administration and the Housing Board together would be able to continue a massive construction programme over a long period and that, in each move, each household would have economically improved its position as costs would be greater each time a move was made.

17.55 The reason for lack of consideration for the people could be attributed to the structural influence of the Indian society. India is basically divided into social classes and usually the lower class elements formed the poor and squatters of the urban centres. Thus any official consideration is seen as a privilege instead of a right, and sometimes such considerations are resisted by the privileged classes who see their position threatened.

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- (a) In 1959, the authority ordered a forceful demolition of all the huts in the city; the settlement residents prevented this by lying in front of the bulldozers.
 - (b) In compromise, temporary allocations were made.
 - (c) In 1964, after the destruction of a number of settlements by fire, the inhabitants were moved to a fourth 'labour colony'.
 - (d) In 1965, all new settlements were demolished.
 - (e) During 1972-73, 6000 pucca one-room tenements were built and temporarily allocated to settlers at a monthly fee of Rs. 30.
 - (f) By 1975, 600 tenements were ready but no move took place - the authorities had lost the nerve to enforce relocation.
 - (g) In April, 1979, over 700 huts were destroyed in six different fire incidents of unauthorised settlements and Authorities organised relief on the affected families conditional on their moving to one of the transit camps for 'rehabilitation'.
 - (h) During April, 1980, a similar mystery fire hit another unauthorised settlement in Sector 25 and hundreds of residents were rendered homeless. This time the residents suspected the police and the fire brigade of having a hand in the matter.

The Case Study 2: Brasilia

17.56 The decision to transfer the Brazilian capital from Rio de Janeiro to the interior was a realization of an idea which had persisted almost throughout the history of Brazil since 1789, while the country was still under the colonial rule of Portugal. The decision occurred in legislative proposals in 1822, and following the proclamation of the republic in 1889, it became incorporated in the Constitution in 1899.

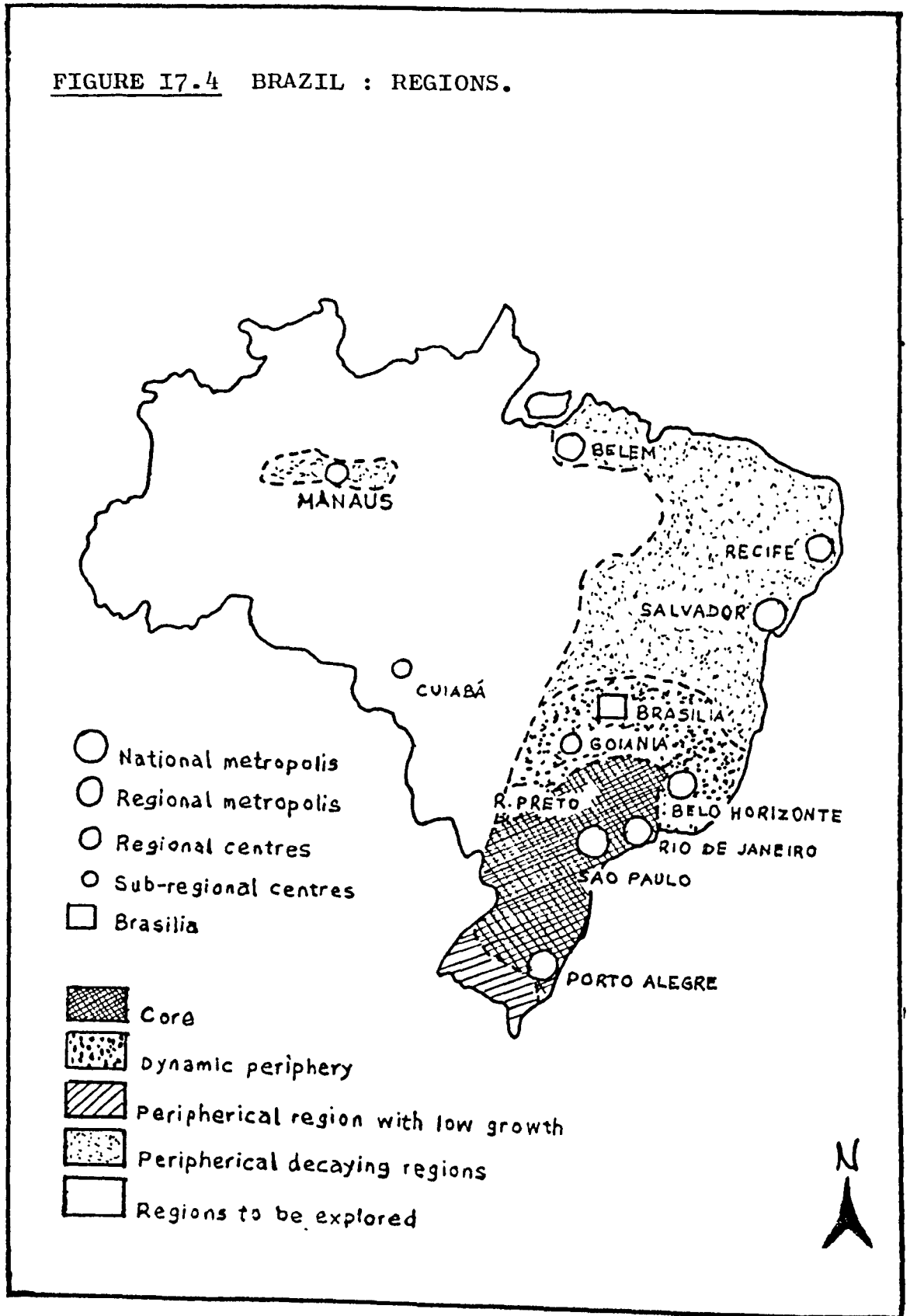
17.57 The reasons behind the decision at that time included, first, an attempt to erase reminders of Portuguese domination symbols, such as the city of Rio de Janeiro; secondly, as an attempt to transform Brazil into a unified country rather than a set of enclaves, as it really was; thirdly, for national defence reasons, since the capital located on the coast was highly vulnerable; fourthly, as a way of encouraging new patterns of efficiency in the state services; fifthly, as a growth centre, to promote national and regional development through the enlargement of the economic frontier and the creation of a market capable of generating a self-sufficient process of production, respectively; sixthly, as an ideological device, creating among the masses a spirit of national identity (Vera Cruz, 1956). A further reason was that Rio de Janeiro, like Lagos in Nigeria, is a city crushed by a series of urban problems, some seemingly insoluble, and the city has seen its growth choked and distorted

by the very geographical circumstances that give it its magnificent pictorial charm.

17.58 Miller (in Jones, 1975) estimated that by 1984 the population of Rio de Janeiro would reach 13.3 million. Escalating demographic growth in Rio de Janeiro was undoubtedly a primary factor in the eventual decision to proceed with Brasilia.

17.59 The original motive in the late 18th century was to challenge the authority of the Portuguese colonial masters, whose power was centred in Rio de Janeiro. Other major considerations were politico-economic: huge regions of Brazil lay undeveloped, as shown in Figure 17.4, and hence potentially vulnerable to occupation by bordering states. The population was expanding at an alarming rate without a commensurate growth in the national economy. Associated with the new capital project was a very ambitious programme to open up the hinterland by the building of various important highways - Brasilia-Belo Horizonte, Brasilia-Anapolis (connection with Sao Paulo) and the most spectacular, the 2276 kilometre Belem-Brasilia highway or Trans-Brasilian, which for the first time provided an overland route to the vast underpopulated Amazon Valley from the demographic and industrial heartland of Brazil to the South. Hence, Meira Penna (Epstein, 1973, page 26) regarded Brasilia "as a means towards fulfilling Brazil's continental destiny". Juscelino Kubitschek, the President of Brazil, said: "the construction of Brasilia was symbolic of our efforts to provide the nation with a foundation on which to build the future" (Epstein, 1973, page 31).

FIGURE I7.4 BRAZIL : REGIONS.



The Agency:

17.60 In 1956, the President authorised the creation of NOVACAP (Companhia urbanizadora da Nova Capital do Brazil) a development authority, to plan and implement Brasilia (Epstein, 1973, page 48; Evenson, 1973, page 154); and Dr. Israel Pinheiro was appointed the President of the new body. Oscar Niemeyer, an architect under Pinheiro, was named to be in charge of the architectural development of the city.

17.61 NOVACAP established its base in a nearby town of Luziana for the drive to build Brasilia. The initial tasks of the Agency were those which did not depend on the details of the Pilot Plan of Brasilia, which was only selected on March, 2, 1957. Before then, NOVACAP had started soundings for the Paranoa Dam, which would create an artificial lake and provide electrical energy, the water and sewage system, and the transportation network which was to link Brasilia with the rest of the nation.

17.62 In the context of planning, Lucio Costa's plan only provided the form of a full-grown city, not for the process by which it would grow. Planning the process eventually became the responsibility of NOVACAP. Normally one would expect that in the course of implementing, the shape of the city would alter. Who knows what the situation would have been if Costa had detailed his design?

17.63 The Brasilia Working Group (Grupo de Trabalho de Brasilia (GTB)) composed of the President of NOVACAP and representatives of the Armed Forces General Staff and each of the civilian ministries, was appointed to be responsible for the assignment of apartments which depended on the political influence or connections.

17.64 NOVACAP supervised the building of the city. However, much of the building enterprise was carried out by large private contractors who provided their own engineering staff, specialised workers and construction experience. The participation of such firms, one would expect, reduced the problem of supervision from NOVACAP, but firms, like any economic man, seek opportunity to maximise their gains.

17.65 The initial development of Brasilia heavily depended on the personal dedication and administrative support of Juscelino Kubitschek. The loss of his leadership, following his departure from office in 1961, had an immediate effect on the morale of the planning staff (Evenson, 1973, page 164). João Goulart, who succeeded Kubitschek, was more concerned with internal social reforms than the development of Brasilia.

17.66 With the exit of Goulart in 1964, General Castelo Branco assumed the Presidency. His reign was marked by an administrative reorganization of Brasilia. A municipal prefecture took over the major planning responsibility for the city. NOVACAP - though still a planning agency - was subsumed in the municipal system and became subject to the authority of the Secretary of Transport and Works. Israel Pinheiro left NOVACAP to become the first Prefect of the Federal District. Under the municipal prefecture were three other departments, the Coordination of Architecture and Urbanism, the Department of Roads and the Coordination of Works and Services. Furthermore, the Society for Housing of Social Interest came under the authority of the Secretary of Social Service who was responsible for directing the programme of subsidized low cost housing, primarily in the outskirts of the city.

17.67 In 1967, another government agency was created with planning powers subject to direct federal authority - the Coordination of the Development of Brasilia (CODEBRAS). It replaced the GTB. Originally its function was administrative, but with the reorganization its work extended to design and construction of housing.

17.68 With the fractionalization of the Agency and its responsibilities, one would expect an overlap of responsibilities and redundancy of function. The reorganization made the Coordination of Architecture and Urbanism (CAU) the most powerful as well as the responsible coordinating body. One can attribute this supremacy to the leadership, because Niemeyer continued to be the Director of CAU after the reorganization.

17.69 The progress of Brasilia was dependent on political vagaries and especially on presidential support; the idea of the city appeared politically acceptable to the succeeding leaderships. Costa e Silva succeeded Castello Branco and continued the support offered by previous presidents, announcing as he took office in 1967 that he was determined to complete the transfer of the government to Brasilia during his administration. Costa e Silva was succeeded by Emilio Garastazu Medici in October, 1969. In his assumption of office, he pledged the same commitment to promote the development of Brasilia. Though Brasilia, after Kubitschek, continued to receive political support, no timetable was set for the completion of the city. One can argue that Brasilia lost the tempo of rapid implementation with the departure of Kubitschek from office.

17.70 The administration of the satellites was established during the 1964 governmental reorganization in which the Federal District was divided into eight regions. Brasilia

and Nucleo Bandierante were grouped into one region, while the other satellite towns each constituted a region.

17.71 Contrary to Brasilia's process of moving from one single semi-autonomous body to multi-functional units, Canberra moved from the use of civil service departments to a single semi-autonomous body, the National Capital Development Commission (NCDC) to be responsible for the planning and implementation of capital city projects. Given the political context of capital developments, the administrative structure and processes are fluid, and it would be naive to draw comparisons. But the two cases support our earlier hypothesis that when an organization becomes inefficient, there is a tendency for the government to abandon or reorganise it (Chapter 2).

Resource assumptions:

17.72 An area of 5,850 square kilometres was designated as the Federal District. The area was very large but possessed a poor resource base for industrial development. Besides the major constraint of being far away from other urban centres, it had an inadequate water supply and a scarcity of cheap power, at least under contemporary technological developments. These reinforced the determination of the decision-makers to restrict the role of Brasilia to the administration of the government of Brazil, much in the manner of Washington, D.C. and Canberra.

17.73 The infrastructure and major government buildings were to be financed through NOVACAP. Direct congregational appropriation in addition to an initial endowment of

Cr \$500 million were assumed to be used to effect these. The residential construction of the city was to be implemented by government pension institutes. Also to be involved in the construction of housing in Brasilia were the government savings bank (the Caixa Economica Federal) and the Foundation of People's Housing (Fundação da Casa Popular), together with the National Bank of Brazil. Part of the cost was to be off-set by sale of land to private owners. Finally, U.S. aid funds were to be mobilized to create distant neighbourhoods composed of tiny individual houses for the former residents of several favelas (squatter settlements). (Epstein, 1973, page 90).

17.74 The sources of financing were diversified, but what the planners left unanswered was the question of whether funding would be continuous or was meant only for the early stages of capital development. The total cost of Brasilia from initiation of the construction to the dedication of the city had been calculated as \$600 million, with estimates of additional expenditure up to 1966 to \$1 billion (Evenson, 1973, page 156). There is lack of information on the future cost or how much more of the city remains to be implemented.

Socio-economic assumptions

Population:

17.75 The Federal District of Brasilia prior to its acquisition of this status, included only two small settlements - Planaltina, a county seat, and Braslandia, a small rural nucleus which in 1959 had only 350 people. Planaltina was the home of some 2000 souls.

17.76 Brasilia was planned to grow to 500,000 population and, although no date was stated for Brasilia to realise this target population, the city depends on immigration and consequential natural increase to reach the target. It was assumed that most of the immigrants would be drawn from eastern cities like Rio de Janeiro and Sao Paulo, including the civil servants who would be transferred from Rio de Janeiro, the former capital.

17.77 The Brazilian Government, in their belief that the national interest would be better served if political policies were made in a small capital city, far removed from direct contact with any of the major centres of urban settlement, predictably favoured the plan of Lucio Costa. For he, above all other planners, captured the imagination and the goals of the government in power by designing Brasilia 'as a rigid, integrated whole, rather than as an organism which could be permitted to grow by accretion, as the historic city has done' (Snyder, 1964, page 35).

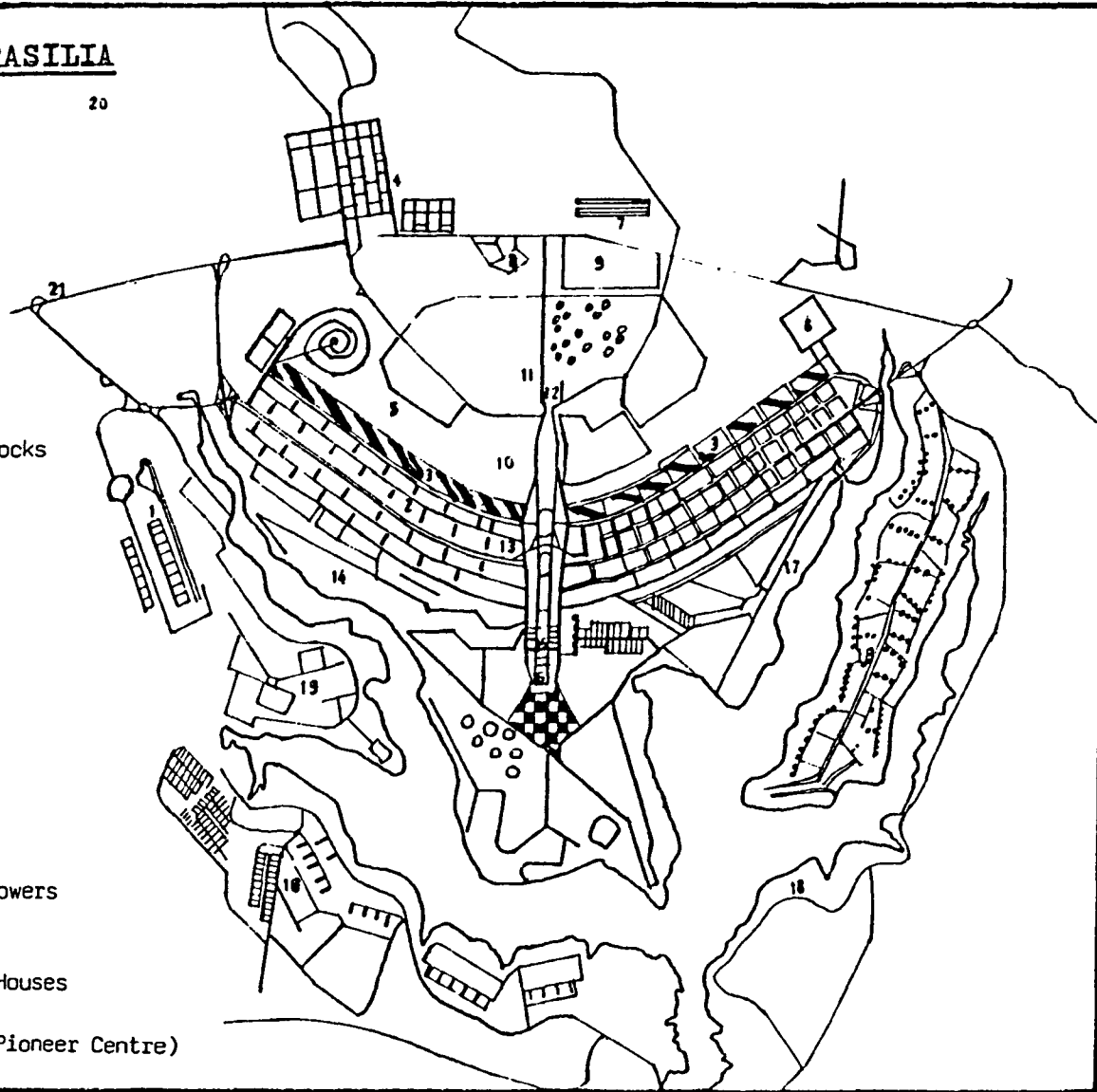
17.78 The concepts of size and function helped Costa decide what form the city would take. The desire to design a city of deliberate and recognizable form, fitted in well with the government's desire for a small political capital, in spite of the earlier assumption (Section 17.57) that Brasilia would be a growth centre.

17.79 Brasilia's form has been described by commentators variously as an airplane, a bird, or a dragon-fly, as illustrated in Figure 17.5. The monumental axis constituting the fuselage or body of the city was to concentrate the official-political-administrative functions, while the other axis was to contain the residential and

FIGURE 17.5: BRASILIA

20

1. Airport
2. Residential Superblocks
3. Row Houses
4. Industrial District
5. Industrial Use
6. Cemetery
7. Waterhouses
8. Low-cost Housing
9. Military Centre
10. Sports Centre
11. Hall of Justice
12. Municipal Square
13. Business District
14. Embassies
15. Ministries
16. Plaza of the Three Powers
17. Sports and Clubs
18. House Plots
19. Large Single-family Houses
20. Suburban Lots
21. Nucleo Bandierante (Pioneer Centre)



associated sectors in its two wings. At the junction of the two axes was a great multi-level highway interchange, including the bus station. The railway station was proposed to be located at the end of the Monumental Axis. One of the characteristics of the plan was the monumental emphasis on government building.

The economy:

17.80 Costa's plan of Brasilia did not reveal much about the economic prospects of the city. Brasilia, of course, possessed a poor resource base for industrial development. It was built on the assumption that, together with physical capital investments in other areas and highways, it would contribute to the achievement of one of the basic prerequisites of the programme: the continuous growth of internal demand in order to allow the continuous growth of the capital accumulation process. In other words, the ability of the periphery to absorb growing and diversified industrial production made it evident that, in order to guarantee the continuity of national development (i.e. that of the core), it was necessary to enlarge the internal market (Farret, 1983, page 146).

17.81 Brasilia as a growth centre (so assumed) constitutes a very peculiar case, both because of its size and functional characteristics. To create a market for the consumption of industrial products from the industrialised east requires a large population size. It would also be expected that it would have to diffuse modernisation and economic development in the surrounding region. These two goals are not easily assessed because, first, regions (particularly 'empty' regions) are open economies, thus

making it hard to detect cause and effect relationships; secondly, modernization and development probably need more than twenty years to display objective outcomes. The usual question arises in the face of a poor economy as to the likelihood of the population earning enough to create the required market in Brasilia.

17.82 Albeit, the Paraiba Valley industrialization made Brasilia possible (Evenson, 1973, page 180-181). Should this be regarded as adequate for a city of 500,000? Similarly, in an effort to create local sources of food supply, the Federal District was planned with a series of rural centres each consisting of a group of small family farms, ranging from 60 to 150 acres in size. The conclusion on the agricultural proposal is also not encouraging. The absence of industrial emphasis and the uncertain agricultural future of the lands surrounding the capital, might hinder Brasilia's appointed role of being responsible for ushering in regional economic growth. Relatively little has been done to stimulate regional growth in ways other than providing highway systems linking Brasilia with other metropolises in Brazil.

Housing:

17.83 The adopted principle of solution for housing and related functions - schooling, local commerce, some kinds of recreation, church going - were the superblocs, "so called not so much because they pretend to be superior as because they are so large". Each superbloc was to form a single neighbourhood unit, 96 in all and 14 superblocs of double area whose elevatorless buildings were to be limited to three stories as opposed to six in the single blocks.

17.84 Some changes have been made in Costa's original idea of a rigidly created capital. In housing, he envisioned that everyone regardless of means would be housed in democratic, economically integrated super-blocks, which would neither change in form nor in standards, since each superblock would be made up of people of divergent socio-economic backgrounds.

17.85 Limited provision was made for low cost housing for low income workers. Many of the immigrants of impoverished means who came to Brasilia to work were forced to live in "Cidade Livre", or "Free City", which was several kilometres outside the capital.

17.86 In addition to apartment housing, two districts near the lake were set aside for large detached houses, although in subsequent modifications of the plan, such single family housing would be restricted to the peninsulas and the far shore of the artificial lake. Principally, the land along the lake front was to be left as natural parkland providing sites for Sport Clubs, restaurants and playing fields.

17.87 Near the railway terminal is a district of low-cost housing serving the industrial district along the tracks. Also included in the western district are several hospitals, a prison, a water treatment station, and the municipal garages.

17.88 Costa did not say who should pay for the social facilities. If the residents were to pay for them, in spite of the city's limited financial capabilities, Costa did not consider either the criteria for selecting the beneficiaries of such largesse or the need for control

of the influx of benefit-seeking lower-income migrants, which was almost sure to result in view of lack of similar programmes in other parts of the country.

Satellite new towns:

17.89 Brasilia's satellite new towns were an aftermath of combined forces, first, the migration of low income group to Brasilia to work and then the failure of Costa's plan to provide for the immigrants.

17.90 Costa dismissed the problem of squatters or, perhaps, imagined that he had dealt effectively with it by prescribing types of buildings and their locations (Epstein, 1973, page 58). When their number in the Free Town and Vila Amauri about 8.49 per cent of the Federal District (268,315 in 1964) proved Costa wrong, NOVACAP had to buy the consent of the squatters to relocate by providing them with wood, nails and zinc for construction at the Taguatinga and Cruzeiro new sites. The population growth of the Free Town is illustrated in Figure 17.6 below.

FIGURE 17.6: POPULATION OF THE FREE TOWN COMPARED WITH THE FEDERAL DISTRICT (Census Data 1959, 1960, 1964 and Estimates 1957, 1958 and 1961).

Date	Free Town Population	Federal District Population	Free Town as percentage of Federal District
June, 1957	2,200	12,200	18.03
April 1958	7,000	28,800	24.30
May, 1959	11,600	64,314	18.03
Sept. 1960	21,033	141,742	14.82
Sept. 1961	15,000	199,188	7.53
Nov. 1964	22,772	268,315	8.49

Source: IBGE, 1959: 4, 79; IBGE 1961: 2; FDF - SEC 1965: 4 (Epstein, 1973, page 76).

17.91 The fluctuation of the rates of growth might be due to the following reasons. In 1958 the rates of immigration and settlement in the Free Town were highest; these coincided with the initial stage of the construction work in the New City. In 1961 the rates were lowest; the reason was that in 1961 there were moves to dismantle the Free Town, such as the withdrawal of the bus line serving the area and the police threat to one of the squatter settlements known as Mercedes Sign. Before legalising the existence of the Free Town, the problem of where to settle without official harassment would naturally affect the immigrants' desire to move. In 1964, after legalising the existence of the Free Town, the rate of population growth in the Free Town showed some improvement.

17.92 The transfer of the squatters of the Free Town, a shanty town, to Taguatinga, 25 kilometres away from Brasilia, set the precedent for the creation of satellite towns outside the watershed of the artificial Lake Paranoa (Epstein, 1973, page 70). Sobradinho, 22 kilometres away, was designated a satellite town in 1962; Gama, 38 kilometres away, in 1964, and Planaltino, the oldest existing settlement in the Federal District in 1967. These towns accounted for 54 per cent of the total population of the Federal District in 1964. Others include Nucleo Bandierante (Pioneer Centre), formerly intended as a temporary settlement, but made into a permanent satellite town and renamed; Paranoa and Brazlandia have been given satellite status. It was only Sabrodinho which enjoyed the orderly growth that characterised Brasilia. In 1980 the total population of the Federal District was 411,305.

The Case Study 3: Islamabad

17.93 The Government of Pakistan's commitment to establish a created capital city - Islamabad - in a region with no distinctive claim to individuality is by no means a unique political act.¹ Like all Federal States, Pakistan has several regional centres as a result of regional interests which are commonly so divergent that no single centre has a clear-cut claim to political superiority. Hence, Spate pointed out, "The device of forming a neutral district, abstracted from the control of any of the states of the federation, and the building therein of a new city devoted specifically to federal administration, is an obvious answer to the problem" (Spate, 1956, page 1).

17.94 Kureshi (1950, page 13) and Tayyeb (1966, page 178) opposed the idea of transferring the capital from Karachi. The former based his opposition on the emotional grounds that Karachi was the birth place of the father of the nation and Karachi had not been the seat of government for any kingdoms in the past; its freedom from past political involvement, were accordingly factors that would make it suitable for any new political centre for the future. Tayyeb insisted that Karachi was a youthful primate city able to offer several inducements as a capital during the early stages of statehood, such as a nucleus of administration buildings, room for expansion and locally available building stone. Another point for opposing the development of Islamabad was whether Pakistan as a newly independent country could afford the cost of developing a new capital city. However, in political issues it becomes the responsibility of the government in power to decide.

1. Washington, D.C., New Delhi, Canberra, Brasilia, Abuja, etc. are all 'created' capitals.

17.95 The choice of an interior location for the new capital was motivated by many factors; the chance to start over again in a morally-healthier environment, the question of the desirability of having Army headquarters and the national capital in close proximity to each other, and the possibility of enhancing social cohesion by the symbolic gesture of constructing a new capital, were some of the more important reasons for the development of Islamabad (Stephenson, 1970, page 320).

17.96 Furthermore, the advocacy of an interior location resulted from fear of a possible naval attack or blockade from an enemy. Pakistan having seceded from India in 1947 and having established a state of its own, would naturally guide its independence by whatever means. Islamabad's location alleviated the fear more than would have Karachi along the coast, or Lahore at the border with India.

17.97 The immediate cause - contrary to the views of Tayyeb - for rejecting Karachi was that it proved to be over-congested (having overnight become the only port town in West Pakistan, with its forty million people), and the proper functioning of the administration would have meant the construction of public buildings, residences and facilities of a certain magnitude (Doxiadis, 1965, page 5). Doxiadis was of the view that if such investment took place in a new non-developed area, the increased land value of the surrounding area would go to the government - which would initiate action and investment - and not to those who happened to be land-owners near the new government developments.

17.98 Thus the location of the new capital was decided to be in the northern part of the Potwar Plateau, 15 miles east of the existing city of Rawalpindi. The Rawalpindi -

Islamabad region is located at the junction of the main roads to Afghanistan, Gilgit, and Kashmir which are all border areas where Pakistan is in the process of developing strategic functional relationships.

The Agency:

17.99 The Government of Pakistan commissioned Doxiadis, a Greek Architect and Planner, to plan the city of Islamabad from 1959 to 1963, entering the implementation phase in 1961.

17.100 The Capital Development Authority of Islamabad - like those of Chandigarh and Tema in Ghana - was modelled on the Development Corporations of British new towns. Its main function was to act as a link between the Pakistani Government and the Consultants, organizations and private developers on the one hand, and on the other hand to form a bridge between the federal government and the local inhabitants.

17.101 The Authority saw its main function as to build houses for the workers on the site and for the rest of the community. Rawalpindi provided the initial base for the administration.

Resource:

17.102 The site was of 898.6 square kilometres and was described as the centre of gravity for the Pakistani people. Doxiadis defined the centre of gravity as a point of interaction between population, economy and activity; he did not, however, specify the sources of revenue to finance the development. To Doxiadis and

Corbusier "the creation of a new city is a means of making money". Doxiadis (1965, page 5) said that the functions of a capital were determined by the size and organization of the country. A capital city meant so many square feet of office buildings, so many square feet of residences of certain classes and so many corresponding facilities, from shopping and entertainment to roads and sewers. What these mean is that private investment should be concentrated in construction and in the purchasing or leasing of land, dwellings and shops, which the government had developed. The argument is that they (offices, residences and others) have to be provided (and their provision cost money) before they can earn money for the city.

17.103 Islamabad has a local water supply from the Margalla Range augmented by a dam under construction at Simly, 20 miles from Rawalpindi, which will supply 27 million gallons of water per day. Additional power supplies will come from the gas deposits at Dhullian. These provide sources of funds or reduce expenses on the administration.

Socio-economic assumptions

Population:

17.104 Unlike Brasilia and Chandigarh, Islamabad had no population target. Doxiadis (1965, page 20) maintained that in all normal cases in our era of development, no size can be fixed - only a growth prediction for a certain given moment in time. He said, "We cannot condition the size of Islamabad. It started with one inhabitant.... then it reached the thousands; it is increasing to hundreds of thousands and will reach millions".

Accordingly, in the Master Plan a population of 400,000 was projected by 1980.

17.105 Doxiadis' plan also assumed that Islamabad was going to be linked with other settlements into major groupings, then move towards a population of tens of millions. In view of this optimistic view, he recommended continuous projections, in order to allow the capital city to adjust to an evolving humanity in the area of its greatest development.

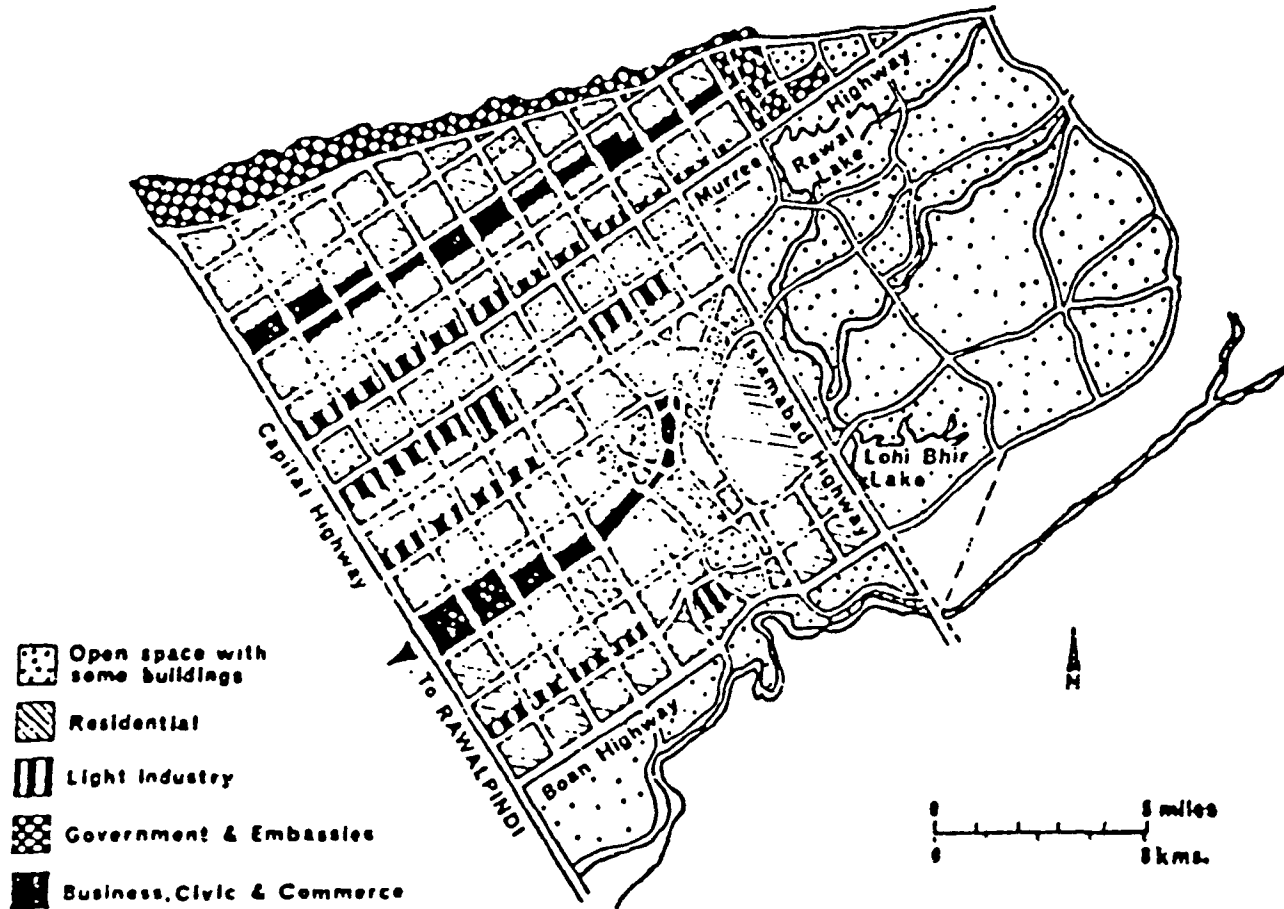
17.106 Islamabad's plan takes an opposite view from the normal procedure, which requires a prefixed size which acts as a control for determining the provision of facilities in a particular planned area.

17.107 An analysis of the two concepts - the concept of population targets and the concept of organic growth - and of the problems encountered in bringing each to full realization, provides an opportunity to analyse the relationship between political decision-making and governmental perceptions of resource potentialities in each state.

17.108 Further, the plan (Figure 17.7) divided the city into sectors, each of which would have an average population of 35,000 with its administration and civic buildings including a mosque, office blocks, department stores, secondary schools, parks, and health and recreational centres. Each sector is divided into four subsectors and these again are divided into lower level subsectors, so that the basic planning unit is a community of approximately 2,200. While the population will range from 10,000 to 40,000 persons in the various sectors, all would have full range of social amenities and housing types. Doxiadis

FIGURE 17.7:

ISLAMABAD



hoped that in this way, pitfalls caused by building monumental areas and high income dwellings first could be avoided. However, he did not say how the central government functions would be decentralised to all these sector centres and, at the same time, achieve efficiency.

Economy:

17.109 The Islamabad plan proposed two separate industrial zones (which have been implemented) - a Manufacturing Industry Zone emphasizing building materials and a light Services Industries and Handcrafts Zone. The former zone is located in close proximity to Rawalpindi, which enables it to serve both cities. The amount of labour to be employed by the manufacturing sector was not estimated. However, the size level of a labour force will depend on whether the industries are light or medium to large industries and, also, on whether they are labour or capital intensive industries. A city which is expected to grow to millions will undoubtedly be inhibited by policies such as adopted for Islamabad, not only as discriminating against industrial types required to provide enough jobs but also to effect balance in its manufacturing productive sector. But in this respect, the Islamabad plan limited its proposal to light industries.

17.110 Doxiadis's plan also failed to show any relationship between population growth and food production. One would have expected a definitive proposal on the agricultural prospects of the metropolitan area, but this was not made by the plan.

Housing:

17.111 In contrast to the usual preoccupation of planners and administrators, which is the building of monumental buildings for the government, Doxiadis declared:

"I have an obligation to follow only that road ahead of me that is not obstructed and cluttered up with monuments, a road whose largest shadows will be cast by simple plain human buildings" (Doxiadis, 1963, page 194).

17.112 Within this convention, Doxiadis proposed the housing first of the builders and the low income groups who will build the city. "This means a proper conception and creative control of the overall development, not a negative attitude towards the real needs, but full recognition that we must start by covering needs, and not by building monuments" (Doxiadis, 1965, page 17).

17.113 It might be necessary to get a clear definition of who are the builders? To some people it implies skilled and semi-skilled workers who put mortar and bricks together in order to produce buildings. To others, it will also include the administrators and executives who plan and implement the projects. This was not explained by Doxiadis.

17.114 Secondly, the planner's proposals must agree with political decisions. For example, when a new state is created and its original capital city remains in another country (as was the case with Pakistan and New Delhi, which was left in India) or, perhaps, where there is no obvious capital city in its territory with the necessary

facilities for its administration (as was the case in some newly created states in Nigeria), there is a necessity to provide accommodation for the government officials who in their own capacity can be regarded as builders of the city.

17.115 It may be necessary to limit Doxiadis's proposal to a case where there is an existing capital city, where there is need to transfer the functions of the capital city to an area not inhabited yet. Governments require people before they can function, and in that case the settlement of people first becomes primarily important.

17.116 It might not be right to infer that the non-consideration of the problem of squatter settlements in Islamabad by the planner, was evidence of their non-existence or attributable to the impact of the proposed housing policy. Obviously, we shall agree with Sarin that what is lacking in the preoccupations of all these 'great' planners is any direct consideration of the material reality of the people for whom they were designing these splendid creations (Sarin, 1982, page 56).

Comparison with Abuja

Political uncertainty:

17.117 Much of the impetus for the development of the new capital cities came from the enthusiastic support of their political leadership. Nehru, the Prime Minister of India, supported the building of Chandigarh; Kubitschek, in a political rally before his election to presidency in 1955, promised to implement the Constitution, and he did.

This promise was no less true for the former President of Pakistan and Islamabad and for President Shehu Shagari of Nigeria and Abuja, than it was for Kubitschek and Brasilia.

17.118 Though the implementation of Brasilia received political blessing from Kubitschek and his successors, this interest did not last. Every succeeding leadership proclaimed its commitment to complete Brasilia, but those promises were only rhetoric because the pace of development in Brasilia slowed down after Kubitschek's reign. There was a general paralysis of construction activity at the order of Janio Quadros when he took office as the President of Brazil in 1961. The annual population growth rates of the Federal District between 1957 and 1980 provide clear evidence of slowed growth after Kubitschek's reign, as illustrated in Figure 17.8.

FIGURE 17.8: POPULATION GROWTH RATES OF THE FEDERAL DISTRICT (BRASILIA) BETWEEN 1957 AND 1980

Date	Federal District Population	Growth Rate per cent
June 1957	12,200	-
April 1958	28,800	136.1
May 1959	64,314	123.3
Sept. 1960	141,742	120.4
Sept. 1961	199,188	40.5
Nov. 1964	268,315	34.7
1970	272,002	1.4
1980	411,305	51.2
Average annual increase		22.1

Source: The author's computation.

Between 1960 and 1961 the growth slowed by nearly 80 per cent as against the period between 1970 and 1980 when the growth picked up again (51.2 per cent increase), probably because of renewed political support and stability. The pressures for rapid construction which governed the initial phases of Brasilia no longer existed, although many of its original engineers, architects and planners continued in their devoted enthusiasm for the city (Evenson, 1973, page 166). Who knows what would have happened to Brasilia if Kubitschek had continued in office longer than he did?

17.119 Judging from Brasilia's experience, one can infer that the continued leadership of President Shehu Shagari after the 1983 election ensures continued political support for the implementation of Abuja. It may not ensure support after the next election, nor even funds enough beforehand, but it leads us to hypothesise that political uncertainty surrounding capital city developments increases with changes of leadership and, correspondingly, is reduced by political stability and continued political leadership.

Management uncertainty:

17.120 At the dedication, it was expected that 30,000 government employees would move to Brasilia from Rio de Janeiro. In the context of Abuja, it was expected that by 1986 over 20,000 civil servants would be working in Abuja. Brasilia did not achieve the task of housing all 30,000 employees in 1961. Both Brasilia and Abuja's plans had no thought of the transportation costs of transferring staff from the old capital cities to the new ones. In both cases, the distances and dislocations were considerable.

17.121 On the question of efficiency of civil servants, the Pakistani President had the conviction that civil servants in Karachi were too exposed to political agitators, corrupting influences, and control by the strong business community (Stephenson, 1970, page 320). He saw a transfer to Islamabad as a solution to these ills. The likelihood of success of this panacea is low, in view of the fact that civil servants at Islamabad would be equally exposed to political agitators as they would in any other capital city. Furthermore, the location of the government seat near the Army Headquarters lost sight of the constant potential for military coups in developing countries. Some may argue that the government would be in a strong position when located nearby, able to check some of the excesses of the military; this argument, however, does not consider the overspill of military barrack mutinies to other parts of the city, which can disrupt government functions.

17.122 In Brazil, critics of civil service inefficiency associated the cause with the location of the seat of government in Rio. The civil servants were reputedly reluctant to work either hard or continuously. This can equally be said of most Nigerians. While the creation of Brasilia might have helped repudiate that view of Brazilian civil servants, that improvement could not be attributed to Nigerians at Abuja in view of recorded mismanagement of men and materials.

17.123 To the authorities in Brazil, the efficiency of NOVACAP was short-lived. In 1964, President Branco reorganised the development authority and instead of one agency six were created. NOVACAP was allowed to continue to function as a planning agency, but under the Secretary of Transport and Works. The other five agencies were

responsible for different aspects of the work which were previously performed by NOVACAP. The reorganization tended to be somewhat confusing and characterised by overlapping agencies and redundancy of function.

17.124 In 1950, the Australian Parliament adopted an opposite step. The Australian Parliament became convinced that traditional civil service departments in whose hands the development of Canberra was placed, were unable either to provide office accommodation, housing and urban services at the rate required, or to plan the city with the aesthetic qualities appropriate for a national capital. It was decided to set up an independent body - the National Capital Development Commission (NCDC) - with wider powers just in line with the British new towns Development Corporations or the FCDA Abuja. The performance of this latter body in Canberra is yet to be assessed.

17.125 In Ciudad Guayana, though not the capital city of Venezuela, the President of Venezuela in 1960 established the Corporacion Venezolana de Guayana. The presidential decree gave the Corporation the status of an autonomous institute, responsible directly to the President of the Republic and entrusted with the planning, promotion and coordination of the development of the Guayana region. In effect, the new Corporation consolidated the functions of previous bodies interested in the area, such as the privately sponsored Iron and Steel Syndicate, the Research Commission for the Electrification of the Caroni, the government owned Venezuelan Iron and Steel Institute and the President's Commission for Guayana (Penfold, 1966, page 230). Even though the creator of this Corporation did not foresee the problems of coordinating such multi-functional units,

it represents a different way of tackling the problems of management.

17.126 An attempt to decentralize the FCDA, Abuja, in 1981 by the President was not accepted politically and legally, nor had the various units (the FCDA, FCTA and MFCT) justified the confidence reposed in them by the public. The probability of any reorganized administration achieving better results than the existing ones is very low with the present staff and system of administration. A high performance might not emerge from fissioning or fusing of these organizations but, rather, by isolating national interests from ethnic and religious interests and by finding dedicated men and women to plan and implement the programmes.

17.127 In most of the capital city programmes, political interference is very high and the degree of local participation is low. Chandigarh has a highly centralized decision-making structure. Most issues are settled by senior administrative and technical officers under the overall charge of the Chief Commissioner. A minimal semblance of local 'participation' in the decision-making process is achieved through monthly consultative meetings with the "Local Advisory Committee". This consists of a number of selected individuals, nominated by the Chief Commissioner and considered representative of different sections of the population. The Chief Commissioner is not bound to the recommendations of the Committee, and his own decisions are final (Sarin, 1982, page 99). With this highly centralized administration (referred to in Chapter 14 as ego-uncertainty), what probability is there for the Chandigarh Administration to achieve the greatest benefit for the greatest number, if the people are not allowed to air their views in matters that concern their

welfare? The situation is not very different in Brasilia. The military intervention was such that the interest of the public was not seen as fundamental. For instance, in respect to the scheme developed by Niemeyer for the expansion of the airport, he claimed that "the airport, which would provide the principal entrance to the city", would be designed "fundamentally in the architectural spirit of Brasilia", but the newly appointed director of engineering of the Ministry of Aeronautics, Brigadier General Castro Neves, disapproved, and the design soon became a matter of public controversy. Niemeyer made energetic efforts to keep the dispute before the public, issuing published statements in justification of his design and enlisting considerable professional support (Evenson, 1973, page 168). Yet Neves continued his influential opposition and supervised the creation by his own agency of an alternative plan for the airport. At the end of the day, Neves had his way.

17.128 In Abuja, a board was created comprising people appointed from different sections of the country, but whose appointment was based on their political allegiance. Political patronage is seen as most important, forgetting the main issue, which is to hand over to the nation a fitting city with no extra costs attributable to corruption.

17.129 Given the political and military influences in capital city programmes, the probability of achieving equality of opportunities is doubtful.

Resource uncertainty:

17.130 The development agencies of the capital city programmes adopted different methods to ensure continued financial resources. Chandigarh's main source of revenue outside government grants was the sale of land. The CPO initially adopted a standard rate to calculate the prices of land and later changed to auctioning the land. There was little regard for the interest of the low income groups who formed 90 per cent of the Indian population, who could not afford to pay for the land, nor to other land uses which perhaps do not provide direct monetary gain, such as open spaces which contribute to aesthetics and the urban environment. Neither was the CPO aware of the limit to the continued supply of land. It was only in October, 1979, that the Chief Commissioner came out with a startling statement that after a summary survey, it had been realised that "there are just no more residential plots for sale to the public" (Sarin, 1982, page 81). What alternative source of revenue is left for Chandigarh's Administration?

17.131 On the other hand, in addition to the revenue derived from the sale of land, central government grants, and loans, the NOVACAP administration in Brasilia mobilised the financial institutions of the country for the development of the Capital. These included savings banks, the Foundation of People's Housing, National Bank of Brazil and government pension institutes which provided alternative sources of revenue. In effect, the institutional contributions could reduce the burden of developments accrued from complete dependence on a single source of revenue. In Brasilia, however, little was said about possible alternate uses of the human and material resources employed in the project. The absence of an industrial

emphasis and the uncertain agricultural future of lands around the capital would hinder Brasilia's appointed role of being responsible for triggering a regional economic boom (Stephenson, 1970, page 329).

17.132 The government of Pakistan assumed that private investment should be concentrated in construction and in the purchasing or leasing of land, dwellings and shops which the government had developed. There was no mention of other sources of funding to effect development. Similar to that in most Third World Countries, the financial arrangement was very poor and could hardly sustain massive urban development. However, the leisurely approach which the city authorities have adopted has resulted in an evolving dynapolis which has no completion date. Even at that, it is uncertain how much extra cost the authority has to face with such leisurely approach. The planners of Islamabad did not consider the opportunity costs in regard to such other necessities as food, health, services, education and social infrastructure, by concentrating on a single project which has no completion date or size target. The planners should have known the cost of "putting all one's eggs in one basket".

17.133 Unlike Pakistan and India, Venezuela is an oil producing country like Nigeria. In addition, it realised that to achieve the target for Ciudad Guayana with declining growth in oil production would require the manufacturing sector to expand at the rate of at least 12 per cent every year. "The shift to a more diversified economy is now happening quite rapidly" (Penfold, 1966, page 228).

17.134 Nigeria seemed not to have read the writing on the wall as did Venezuela. Its economic advisers were too optimistic as to the continued growth rate of the

dollar-earning petroleum sector; they did not see the need to advise on alternative sources of revenue for the Federal Government programmes. Abuja depends on Federal Government grant and revenue allocations. The Federal Government, on the other hand, depends on the revenue from oil. Unlike India and Brazil, Nigeria cannot opt for the sale of land to supplement the fund from oil for the NFCC and the FCT implementation because the Land Use Decree, 1978, makes sale of land in Nigeria illegal. There was no arrangement to mobilize the financial institutions as at Brasilia and existing industries are mostly import substituting. The existing financial base is weak. Now that oil money is no longer coming as before, the likelihood of completing Abuja's programmes on schedule is very low. To achieve this target with a declining growth in oil revenue, requires other parts of the economy to grow at the rate of 8.3 per cent per annum to reduce reliance on oil revenue, the mobilization of existing and development of new institutional (local and modern) sources and diversification of the industrial sector.

Socio-economic uncertainty

Population and employment:

17.135 Chandigarh's plan projected the city population to 500,000, although no target date was assumed. Between 1961 and 1981, the population increased from 89,000 to 219,000 after 30 years of the city's existence and 20 years between censuses.

17.136 Similar to Chandigarh, Brasilia has a population target of 500,000, but no target date. It grew from 12,200 in 1957 to 268,315 in 1964 after only five years'

existence and the population rose to 411,305 in 1980 including populations in the satellite towns. Islamabad is planning an open-ended city, with no maximum size - only a growth projection. Ciudad Guayana was planned to accommodate a population of 600,000 and, between 1950 and 1975, it had grown from 4000 to 350,000, although as a regional city it does not offer a fair case for comparison. Abuja's plan assumed both a population target as well as a temporal target.

17.137 It becomes obvious that Chandigarh and Brasilia adopted similar concepts for dealing with size problems; Islamabad and Abuja each adopted a different approach. The three opposing planning concepts provide us with a basis for assessment of the likelihood of attaining the target population growth. By implication, the Brazilian Government had the belief that national interest would be better served if political policies were made in a small capital city far removed from direct contact with any major centres of urban settlement. The question is, would not a city planned for a population of two or three million be a greater symbolic impetus for inland development than one of only 500,000? In the context of Islamabad, we argue that Islamabad is likely to be in danger of becoming too large. The pertinent questions are - is there an ideal size for a created capital? A city that ranks first in the nation in population or a city small enough to be free of congestion, pollution and other problems of metropolitan areas, but large enough to offer a full range of social amenities? Easy answers might not be expected for these questions since the capital cities with varied size concepts are still undergoing processes of development.

17.138 Doxiadis tried to justify his approach on the grounds that the question of size had upset many efforts and led many new or existing cities to failure during the last few generations, as people's minds had stuck to the old notion of a static city, they tried to specify its size (Doxiadis, 1965, page 18-20). The view must have been based on the fact that there is no acceptable optimal city size. The ranges of sizes vary, possibly dramatically, according to the functions and the structure of the cities in question. It is not surprising that estimates should vary from country to country and over time as the components of urban development service mix and relative cost conditions alter. Most empirical work has looked at how expenditures per head change with increases in population, but this throws light on scale economies only if demand is inelastic; what is really needed are measures of the influence of scale on unit costs of homogeneous output (Gupta and Hutton, 1968)*. Very little has been discovered about the relationship of private costs (that is producers' costs and consumer costs) to city size, and the evidence is inconclusive (Alonso, 1970b)*. The existence of divergent city size optima for different interested groups blurs any meaning attached to the concept. Whatever the size of any city, its efficiency depends as much on the quality of the transport and communications networks linking the city and its region as on the balance between agglomeration economies and urban costs within them. City size structures and the spatial layout of cities vary with the level of urbanization; they are a function of the level of economic development and they have to be considered in the context of the overall historical development of each particular country (Edwin von Boventer, 1973, page 145).

* Harry W. Richardson (1972) "Optimality in city size, systems of cities and urban policy: A sceptic's view". Urban Studies, Volume 9, 1972, p. 29 - 48.

17.139 However, there is strong evidence that productivity (as measured by output per capita) increases with city size, primarily as a result of agglomeration economies. Presumably there is also some point on the curve when it stops rising and turns down again as diseconomies predominate over economies, though this point may not yet have been reached in most cities. Diseconomies of scale may begin to set in at a population of about one million for special socio-economic classes, such as the low income workers. The deterioration of public transit tends to confine the poor to a sub-market of the great city and renders them captive to small neighbourhood stores, the big city counterparts to the local monopolies of the small town, made especially pernicious by the more impersonal and more exploitative nature of insulated "absentee" ownership (Thompson, 1972, page 100). With great city size, spill-over costs of air pollution and congestion-delay begin to mount and can come to outweigh first economy and ultimately even variety.

17.140 Doxiadis had the view that it was not proper to determine in advance when a city would be complete; by his own reasoning, he assumed that it would grow to tens of millions before it was complete. His approach to an unlimited size for Islamabad did not take into account the uncertainties that would arise from it. It would be useful to ask whether Doxiadis was illogical for his successors adopted size and temporal targets for the FCT as a good practice?

17.141 Brasilia, Islamabad and Abuja assumed a diversion of migrants from the former capital cities or other parts of their countries. Figure 17.9 illustrates city size distributions of old and new capitals of Brazil and Pakistan.

FIGURE 17.9: CITY SIZE DISTRIBUTIONS OF OLD AND NEW CAPITALS OF BRAZIL AND PAKISTAN

Date	Rio de Janeiro	Brasilia	Karachi	Islamabad
1961	3,223,408	199,188	1,912,598	N.A.
1964	N.A.	268,315		
1966	3,909,000	N.A.		
1970	4,252,009	272,002		
1971			3,442,000(E)	N.A.
1972			3,650,000(C)	77,000
1980	5,093,232	411,305	N.A.	400,000(E)

E Estimate

C Census

N.A. Not available

SOURCE: United Nations - Demographic Year Book
New York, 1961-1980.

The statistics suggest that city size distributions within Brazil and Pakistan were remarkably stable between 1961 and 1980. Mills (1972, page 118) observed that the persistence of particular city size distributions through time is one of the most remarkable regularities in the social sciences. The evidence and literature on the stability of city size distributions suggest that public policies can alter distribution, but that the task is likely to be very difficult. Measurable changes in the distribution within a period of a decade or two are likely to require massive public intervention in location and land use decisions. Relatively minor policy changes such as residency requirements for public welfare recipients, diversion of federal grants from large city

governments or locating a few federal facilities in small cities or towns are unlikely to have noticeable effects. Given the massive developments in the FCT and Abuja, Brasilia and Islamabad, the uncertainty that surrounds the realization of the population targets are dependent on the speed of economic development, on the sectoral structure of the economy, on the quality and quantity of the countries' international economic relationships, on sociological factors such as inter-regional and intra-regional mobility, on political decisions and stability and a host of other variables. It might be that the experience of Brasilia, for example, would have provided a lesson for the planners of the FCT and Abuja. In view of the population growth trends of other capital cities, we must hypothesise the prospect of Abuja achieving its growth targets as "moderate".

17.142 In Chandigarh, the percentage of workers to total population in the city in 1971 was 33.5 per cent. Compared with an all India average of 29.5 per cent for urban areas, Chandigarh might be regarded as successful, superficially at least. Brasilia in 1971 with a population of 500,000 achieved 100 percent (made up of 17.8 per cent for public sector, 29.6 per cent for industrial sector and 52.6 per cent for service sector); Canberra in 1966 with a population of 100,000 achieved an overall total 99.6 per cent (made up of 29.7 per cent for public sector, 25.9 per cent for industrial sector and 44.3 per cent for service sector).

17.143 The likelihood of Abuja's success in providing employment would depend on the availability of private financing in the economic sectors of its activities. The likelihood of private investment is "low to moderate" in view of the downward trend of the national economy.

Housing:

17.144 A principal aim of housing policy is customarily to provide a self-contained dwelling unit per household. In the context of Chandigarh, in 1974 Government houses numbered 12,110 and these were allocated to 13,821 employees. The increase of Chandigarh's administrative functions due to the creation of the states of Punjab and Haryana, both formerly in Punjab province, brought more employees to the city and at the same time exacerbated the housing problem. The population on the waiting list rose to 18,000, more than the number already accommodated. Even with the available dwelling units for 13,821 employees excluding dependents, the objective of self-contained dwelling units was put aside. Furthermore, equality of access to housing was also set aside in view of the number of government employees who had to rent private accommodation or remain on the waiting list (Sarin, 1982, page 86). Those who were not government employees were excluded in the government's calculation for housing provision, but as citizens they had the right to demand government accommodation.

17.145 In Brasilia on the day of dedication, 94 apartment blocks, 500 one storey and 222 two storey houses accompanied by schools and shopping facilities were completed. The failure of the housing sector to match demand with supply created its problem of delay in transferring civil servants to Brasilia, as well as leading to squatment and eventually satellite towns. Costa's plan for Brasilia never contemplated the creation of satellite towns and, when the inevitable occurred, both Costa and Niemeyer did not want to be associated with them. The carnival

song reflects the situation:

"You've got a palace to live in,
 I've got just a shack and love, ai, ai
 It's the fear of turning poor that terrorizes"
 (Epstein, 1973, page 111).

17.146 The housing provision in Abuja on the day of dedication did not show that the implementors had learned any lesson from previous experience of capital city development. Judging from the performance in the housing sector up to 1982, the probability that Abuja will achieve its housing targets by the year 2000 is low.

17.147 The approaches to settlement processes in the various capital city programmes varied. Chandigarh's plan failed to provide for the ordinary Indians who migrated to the city, but the problem remained - what Sarin (1982) called non-plan settlements. In Brasilia, the creation of satellite towns became an aftermath of the problem of squatment. In Islamabad, Doxiadis proposed building first for the builders and made no mention of the squatters and their social problems; the effects of the plan proposals on the problem of squatment had not been assessed.

17.148 The creation of new towns in the FCT was part of the Regional plan's strategy; first, to decongest the NFCC from the outset and to give residents of the FCT alternative choices of settlement and, secondly, to effect economic exploitation of the entire territory. They were not meant for the settlement of the homeless. However, Abuja, unlike Chandigarh and Brasilia, built workers' camps at Nyanya for its junior workers, which must have reduced the number of people that should have been found in shanty towns; yet, still the problems of

squatment were not solved. The idea might have been that with the creation of an additional 27 new towns, everybody must have found a home in one of the towns. But what probability exists to develop 27 new towns simultaneously with the Capital city, before the year 2000? The likelihood of achieving that fit is very low indeed.

17.149 In Chandigarh, Brasilia and Abuja, the provision of services for squatters (non-plan population in Sarin, 1982) has been viewed from the perspective of providers rather than recipients. Assessments of the impact of the social services on people's welfare are rare and are often based on impressionistic evidence, hence each of the cases assessed above are found to be encumbered with social welfare uncertainties.

CONCLUSION:

17.150 The study of uncertainties underlying other capital plans provided another opportunity to confirm the restated hypotheses in Chapter 2. The hypotheses were reinterpreted in the light of subsequent information. The information that is found consistent with the initial impression is attributed to corresponding dispositional factors and information that is inconsistent is attributed to external forces or to chance. This mechanism is analogous to what Koziellecki (1966)¹ terms the mechanism of self-confirmation of hypothesis.

1. H.J. Grabitz and J. Haisch - "Subjective Hypotheses in Diagnosis Problems" (in Irle, ed. 1982, page 245), Studies in Decision Making, Social Psychological and Socio-Economic Analysis.

17.151 The results provided a support for hypotheses 1 and 2 and were in the predicted direction (though of only borderline significance) for hypothesis 3. The findings support the restated hypothesis 1's claim (Section 2.76). Thus in Brasilia construction work was paralysed in 1961 after the overthrow of Kubitschek's reign contributing to the delay in the realization of the plan's objectives on target. The disapproval of Niemeyer's plan for the Brasilia airport expansion by Brigadier General Castro Neves and its replacement with a new plan were an example of an 'ego' influence on policy (Section 14.18). Lack of resources affected Brasilia's plan to divert emigrants from the Eastern Cities. Inadequate knowledge of the available land resources in Chandigarh affected its plan of using land sale after 1979 to continue development. Similarly, the location of Islamabad in the hinterland was aimed at ridding the civil servants of the bad influences of political agitators in Karachi, but little did the decision-makers realise the uncertainty of locating the capital near the Army Headquarters and the coming into power of the military which they would like to get rid of. The involvement of many factors and their complex relationships made it impossible to establish a cause and effect relationship with a "plan" and any one variable; thus supporting the restated hypothesis.

17.152 The findings also support the restated hypothesis 2's claim (Section 2.76).

17.153 Dissimilarities in economic and institutional structures implied, in most cases, different policies. Chandigarh and Canberra established smaller development authorities. Authorities in Chandigarh restructured the CPO when the scope of its activities had increased

(Section 17.23). However, Brasilia's reorganization of NOVACAP was seen as a correction of ineffectiveness of the organization. The decentralization which the reorganization entailed created confusion, overlap and inefficiency which were not anticipated (Section 17.68). Ciudad Guayana established a multi-functional body, not only to develop the city but to be responsible for other unrelated institutions (Section 17.125). Brasilia's adoption of a smaller population target of 500,000 could be traced from previous experiences of Washington, D.C. and Canberra. Nonetheless, differences in the roles of these cities should have dictated different approaches. Brasilia is meant to function as a growth centre for a sparsely populated region which it can hardly achieve with a small population. Islamabad in an attempt to avoid Brasilia's predicament, opted for an unlimited size concept and no target time for completion. Given these factors, Islamabad is likely to be faced with uncertainties of air pollution and congestion problem. Though the policies varied with each city, they could be seen as an attempt to improve on the experiences of others.

17.154 There were few evidences within other capital plans to support Hypothesis 3's claim (Section 2.27). Chandigarh provides few examples. The CPO was a highly centralized body. Even with the reorganization, local participation was limited (Section 17.24). It can be argued that lack of local participation was responsible for the October, 1983 disturbances in Chandigarh by the Sic extremists who were demanding autonomy. Probably if the base of the administrative structure were broadened to include many people from all social classes in the city, it might be possible to anticipate through interaction and communication the problems before they result in a revolt.

17.155 Similarly, the analysis showed the identifiable uncertainties that related to the capital city planning and implementation. They are outlined under:

- (i) Ego uncertainties - These relate to uncertainties emanating from individual decisions. For instance, the role of Castro Neves in respect of Brasilia's airport plan and the role of Janio Quadros in ordering a stop to further construction work in Brasilia in 1961. One can argue that they constitute a political uncertainty, however, they become "ego" when the individual actions are executed outside the mainstream of the government policy (Section 17.118).
- (ii) Uncertainty about the relevant planning environment (Jessop and Friends, 1969) is identified with uncertain problems of funding in Chandigarh, Brasilia and Islamabad; outcome of the reorganization in Brasilia; the reasonableness of population target for Brasilia and, unlimited size for Islamabad.
- (iii) Uncertainty about decision in related decision areas (Jessop and Friends, 1969) is identified with the problem of squatter settlements in Chandigarh and Brasilia and the diversion of emigrants in respect to Brasilia and Islamabad.
- (iv) Uncertainty about value judgements (Jessop and Friends, 1969) relates to a choice of types of development authorities - small or large organization, multi or specific functional organization - in Chandigarh, Brasilia and Ciudad Guayana; and priority housing for the builders of the city in Islamabad.

- (v) In addition, uncertainties that relate to institutional arrangement were identified with the implementation of capital plans in the FCT and Abuja.

17.156 Jessop and Friend's framework deals principally with uncertainties arising from forecasts, decision-makers in groups and organizations, and client sub-population values. The framework, however, omits uncertainties that arise from individual decisions which could be imposed on the public and those arising from the institutional arrangement of the community being studied. Such uncertainties could be identified with most of the pluralist societies.

17.157 The assessment of the various approaches adopted by other capital cities' plans in uncertainty has exposed a lot of similarities and few differences. The similarities have shown a great deal of insensitivities to uncertainties, especially in areas of financial accumulation, diversification of resources and to some extent in areas of handling social problems. The capital cities show the necessary tendency of having continued political support of their central governments. Support, however, is more evident at the initial stage of planning and implementation and few governments maintained continuous support towards the completion stage of the plans. This is not surprising, because most of the actions at the initial stages of these capital cities were executed hurriedly so that only a few took note of the weaknesses of the administrative systems. There is doubt whether the most recently developed capital cities have availed themselves of the knowledge of previous experiences in an attempt to correct the past mistakes.

17.158 Differences in approach had not been much and have been noted in areas of city size concepts, management and sources of revenue. These have been dictated mostly by varying backgrounds, for example, the use of oil revenue by Nigeria instead of land sale or private institutional financing. None showed a high degree of awareness of financial uncertainty except Ciudad Guayana, itself not a capital city.

17.159 There have been few successes and many failures of most of the assumptions of the capital plans. But the degree of success can always be improved on if there is improvement in the techniques of decision-making aimed at reducing uncertainties as well as including in the framework of analysis such areas as those dealing with individual decisions (ego uncertainty) and institutional arrangement.

18 ADAPTING THE CAPITAL TO UNCERTAINTY

This chapter focuses on the institutional context in which Abuja is planned and being implemented. It considers problems underlying the identified uncertainties of the plans and policies for Abuja and examines the scope to control them. It indicates that there are significant means by which uncertainties can be reduced and development of the Federal Capital be better managed.

18.1 The uncertainties and risks underlying Abuja's programmes start with the cultural experience of the individual Nigerian, the institutional framework and the style of administration of the Federal Capital programmes. They are compounded by forces outside Nigeria which are beyond its control. Given the background framework of Nigerian society, ethnic differences were fostered by colonial policies, exacerbated by the civil war and are perpetuated by the progressive policy of creation of states. Yet, it is expected that a physical project can be used to enhance national unity. Against the earlier analysis of induced and extraneous uncertainties, the present situation will be discussed and means of managing the uncertainties facing Abuja will be presented.

The present situation:

18.2 Attack on risk and uncertainty has to be systematic, therefore, the task here is to summarise the problems associated with risk and uncertainties of Abuja's projects and upon which action to improve the programme must be considered.

18.3 First, the starting point is the role of an individual Nigerian. A typical Nigerian is conditioned by socio-psychological forces from his environment and what he or she learns. Biological conditioning is a force but cannot be discussed here. It is difficult to imagine how many centuries it will take a Nigerian to extricate himself or herself from his/her cultural environment. People cannot readily forget that recently they had their king and queens, their own language, were culturally and geographically located, but are now governed by a king, or president who would have centuries

ago been regarded as a stranger. Cohen, Chesnick and Haran in their conclusion in 1971 and 1972 said that there is a relationship between age and efficiency in performance of search tasks. Equally, it has been demonstrated (Chapter 2) that the level of awareness is improved by learning. The FCDA has among its staff highly trained professionals, but most of the experts were not involved in decision-making because of institutional reasons. Perhaps a Nigerian could be exculpated from behaving as he does because it is not his fault, but that of the institution which influences his mental reaction to both familiar and unfamiliar situations. The institutional framework which is defined as the particular patterns or social relationships affects an individual Nigerian as it does to the New Federal Capital City which he has to adapt and might modify if there was a will.

18.4 Second, one aspect of the institutional arrangement is the kind of communication by which people learn about people from people. It has its particular hazards. The understanding is that organizations like the FCDA and FCTA should reflect the Federal character, but the management still act on "knowledge" of "the facts" as contained in the application forms for employment. They know that some people are better at the kind of work wanted in the Authority. Hence, there are biases on who should be appointed and who should not and, even when the appointment is made, assignment to duties is equally based on facts. This is so because people identify others not with what they are capable of doing but by naming one another. Cultural uniformity is no longer a goal as it was during the 'Jihad' in Northern Nigeria or Christian conversion in Southern Nigeria.

18.5 Third, Abuja was chosen partly as a response to the problems associated with Lagos. Among these problems was that Lagos was dominated by one ethnic group, as all State Capitals in the country are dominated by one ethnic group or the other. Although the NFCC is located in one of the minority tribal areas, the influence of the Hausa-Fulani dominant in the former Northern Nigeria is persistently felt. Continued immigration facilitated by proximity will no doubt give the Hausa-Fulani tribes a dominant population in the FCT, so repeating the situation for which Lagos was discredited. While this state of affairs would tend to modify and weaken the likelihood of achieving a detribalised capital city at Abuja, the Federal Government has not demonstrated how it will fulfil its expectation that Abuja would achieve the task of de-tribalisation.

18.6 Fourth, prior to the civil war, ethnic calm was unknown in Nigeria. Ethnic problems were a national issue on which the major political parties were divided. Protests in the past, as at present, had taken the form of riots, killings, arson and destruction of properties belonging to opposing tribes. The issues had been fanned by political sponsored newspapers. The creation of national parties after the military regime has provided an uneasy calm. It is uncertain whether current trends will continue and how widespread they will be. If politics continues to be translated by use of force, it will affect Abuja's growth.

18.7 Fifth, political questions are being judged within the context of religion, without recognising that many Nigerians are not religious, in the sense of being Moslems or Christians. Religious and non-religious pluralism has been institutionalised over the years. Religious

cultural activities have been multiplied, and these have been manifested by the expanding volume of publications issued every year on the Moslem or Christian philosophy and general religious affairs. Religious education has been diversified. The most outstanding are the Christian seminaries and Moslem arabic schools for men and women. These educational frameworks combine old with new forms and aim to produce a person who is both a religious scholar and a modern man or woman. Their graduates are more orthodox in thinking and practice, more secularised in certain aspects than their parents or uneducated Christians or Moslems. There had been controversies between religious faiths in the past; some had resulted in crisis, such as the religious disturbances in Kano, and Borno in 1982. The question is whether similar crisis will occur again in future and what will be their geographical spread in respect to Abuja.

18.8 Sixth, socio-economic dualism in Nigeria has produced social classes over the years. The Moslem dominated cities in the North of the country and cities in the West faced inequality which exists between the rulers (emirs and obas) and the masses, and between the rich and the poor. Dualism and inequality among the people in Northern cities is striking; the sharpest differences between traditional and modern and between poor and the rich are within the Northern cities. Most of the cities and settlements in the Eastern part of Nigeria are republican and lack identifiable leaderships.

18.9 Seventh, in earlier new towns in Nigeria, people were segregated according to races and classes, through the official policy of land zoning and land rent. In Abuja, population mix is advocated, at least theoretically. But in practice, land is allocated to people who can afford

the development within the specified length of time. The inability of low income people to afford residential development and the official reluctance to allocate land to those who cannot develop, means that only one class of people would tend to settle in the NFCC and the subsidiary new towns. The certainty of a balanced community is in question.

18.10 Eighth, provisions for the financing of the NFCC and the FCT new towns are equally important, although here the Federal Government have relied upon existing mechanisms rather than instituting a new system. Thus, much of the infrastructure, all the transportation and communication networks and public building are to be implemented through federal government grants and funds. Limited action on housing in both the NFCC and the FCT would be taken by the FCDA. Much of the housing and industry would be implemented by the private sector. Certain innovations have been made, however, notably to simplify the processes by which an individual could obtain loans from the mortgage banks and also by providing housing loans to government staff to build their own houses. Finally, to assist in and expedite the process of development of the new city and subsidiary new towns, low interest loans were promised. But this has not become operational. The Federal Government was conspicuously dependent on the revenue from oil (the petroleum subsector accounted for 89 per cent of the value added of the mining and quarrying sector, whereas the sector itself accounted for one-quarter of GDP in 1979-80). With the fluctuations in oil markets, funding of the FCT and Abuja programmes has inevitably run into problems.

18.11 Ninth, while Nigerians are said to be mobile, there are plainly obstacles to the realization of the population target of the NFCC and FCT (over 3 million people) in the year 2000, apart from institutional rigidities. These obstacles include movement costs which place a positive cost on the migration required. Transport costs may be relevant in another way; Foster (1972, page 85) noted that when families change their location, they may have to change some of their regular trips - for example, shopping - to new places as convenient as the old; but there may be other trips they continue to wish to make to their old destinations - for example to work, and trips for social and family purposes. This is both likely to impose an additional cost on a new location as well as discouraging people from moving far. There is also subjective attachment to the old location that might affect their expected surplus when they migrate, and citizens may derive positive externalities from staying in a neighbourhood - either from their neighbours or from other communities. Faced with these constraints and many others in respect of housing and employment, one would ask whether assuming a population of 3 million is not assuming too high a target for a new urban focus?

18.12 Tenth, the Capital Plans assumed that a total of 204,000 manufacturing jobs would be provided by the private sector in 2000. The FCDA have agreed to offer incentives to investors, but Oyebanji (1982, page 361-375) noted that during the peak of the oil boom in Nigeria in the 1973-78 period (1982, page 364) only in Benue, Kaduna and Niger did the industrial sectors change from negative to positive performances. He saw this as a modest change, especially when no state sustained its positive performance during the period of analysis (1982, page 373). He further observed that Nigeria as a whole

had a weak net total shift. Both industry mix and competitive component effects were also weak.

Movement of industry was essentially intra-regional (1982, page 373), whereas the FCT expects inter-regional investments to sustain Abuja. Oyebanji (1982, page 373) concluded that a well diversified position requires inter-regional movements of industries. Lack of inter-regional and international industrial investments and depression in the oil market are powerful constraints to the creation of industrial jobs at Abuja and in the FCT. Furthermore, the competitive nature of state governments for industrial investments, local and international, make the whole country homogeneous. No part of the country is seen as less attractive than others and, as a result, the situation in the FCT is indeterminate.

18.13 Eleventh, the performance of the housing sector in urban centres in Nigeria has been appalling. Between 1975 and 1980, the Federal Government proposed to build 46,000 houses but at the third quarter of 1979 it was only able to deliver 8,616 houses (that is 18.5 per cent); the States' Housing Corporations proposed to build 156,000 housing units and were able to deliver only 15,781 units in the same period. In the private housing sector, rent control measures have been disregarded by landlords as well as many tenants. Other tenants have been punished by their landlords by using illegal means such as the removal of roofs, hiring the services of debt collectors or setting thieves or beggars to harass them out of the premises. The performance of the FCDA in housing delivery between 1979 and 1982 at Abuja was not encouraging. Therefore, any Nigerian who had experienced a long wait before he secured a house in any of the urban centres, or had lived in a shack or under a bridge because of non-availability of official accommodation would naturally be cautious about a move to Abuja without being sure of having secured a house there.

18.14 Twelfth, the Abuja Multicity project involves enormous costs of providing urban amenities for the NFCC and the satellite towns. It involves the construction of transportation and communication networks, sewerage and other service systems. It also entails maintenance costs. Population decentralization of the FCT also involves commuting and transportation costs. The problem is that of the contrast between rising urban costs and falling urban incomes. In the context of the NFCC and FCT, rising urban costs are the result of paying compensation for existing development, the high costs of construction, the problems of using foreign contractors and the import of building materials. There is also the problem that the city and the satellite new towns are not yet yielding any revenue to supplement public funding. Therefore, the per capita costs for providing the services are rising with each investment. Both manifestations have been observed already, and they underlie the uncertainty surrounding continued development or phasing of developments in the growth of the city and the territory.

18.15 Thirteenth, another source of cost was the recruitment of a large staff without complementary tasks. In addition, a large army of Consultants and Contractors is retained by the FCDA and FCTA. The question is whether the agencies really want the services of large staffs as well as Consultants and Contractors, when most of the staff remain practically idle for most of the time?

18.16 Fourteenth, the FCDA receives grants and shares from the Federal Government. The FCDA and FCTA have not been required to repay the money they received, as would be expected from British New Town Development Corporations. This financial arrangement in Abuja was seen by the Nigerian public as a means of shovelling the

money away without considering the interests of the Nigerian tax-payers. This problem underlies the uncertainty of the continuity of the method of implementing Abuja's programmes.

18.17 Fifteenth, uncontrolled costs within the FCDA and FCTA have complicated the situation in the form of:

- (i) failure to adopt standards in determining costs of contracts; this has given rise to varying fees paid for similar contracts. For example, a single contract for clearing bush cost the FCTA N6.0 million and another bush clearing cost N150,000. The bushes were left to regrow, and perhaps the task of clearing it would be reawarded to other contractors. The preparation of master plans varied from N850,000 to N4.5 million. Construction of a two-lane carriage way varied from N800,000 to N1.0 million per kilometre. Although costs could vary depending on the nature of the site, the problem is there was no yardstick for measuring such costs.
- (ii) approving expenditures has been based on physical presentation of receipts, without cross-checking whether the specified goods were delivered. In one instance, an officer who had already taken delivery of household furniture for the FCDA collided with the contractor and diverted the goods and sold them.
- (iii) Consultants' fees, called "refundables", have been approved without ensuring that services for which the expenditures were made were reasonable and genuine. Refundables have been made on tours, lodging and hotel bills of the Consultants.

- (iv) Formal and informal costs too numerous to quote had been incurred on behalf of the FCDA and FCTA.

With unregulated costs and decreased revenues, one wonders how much of the city and the FCT programmes could be implemented at a time when lower urban standards are prevalent elsewhere in Nigeria.

18.18 Sixteenth, decisions about administrative arrangements always have to be made. After the determination of policy objectives, the selection of policy instruments - which determined the institutional form - was made. The contention was that policy instruments were not designed on efficiency grounds. There was a reorganization of the FCDA which brought into being the FCTA and Ministry of Federal Capital Territory Administration. The FCDA on its own reorganized its departments, but the functional separation of duties of the administration and professional departments was not clear. For instance, the administrators and professionals disputed as to whose duty it was to recommend Consultants and Contractors. Albeit, the Nigerian public blames the professionals for any problem arising from design and construction activities. Even within departments, assignment to duties has not been based on efficiency grounds but on ethnicism. The consequences of these by 1982 were seen in poor building and inadequate supervision. Political and tribal forces in the FCDA are extraordinarily strong, and efficiency has been compromised with favouritism and perpetuation of ethnicism. Thus, the likelihood of realising the Federal objective of a "befitting city" is in doubt.

18.19 Seventeenth, the creation of states has led to the creation of new state capitals as well as new towns in Nigeria. However, there is no federal government

policy on new town development. Unco-ordinated policies on new town development have been implemented by various state governments. The Rivers State Government designated six new towns at a time, Sokoto designated two, Oyo designated four, and there have been many others. With the constant demand for new states, the urge to propose more new towns arises. The uncertainty of funding the new development in the various states is also being experienced by the NFCC and the satellite new towns in the FCT.

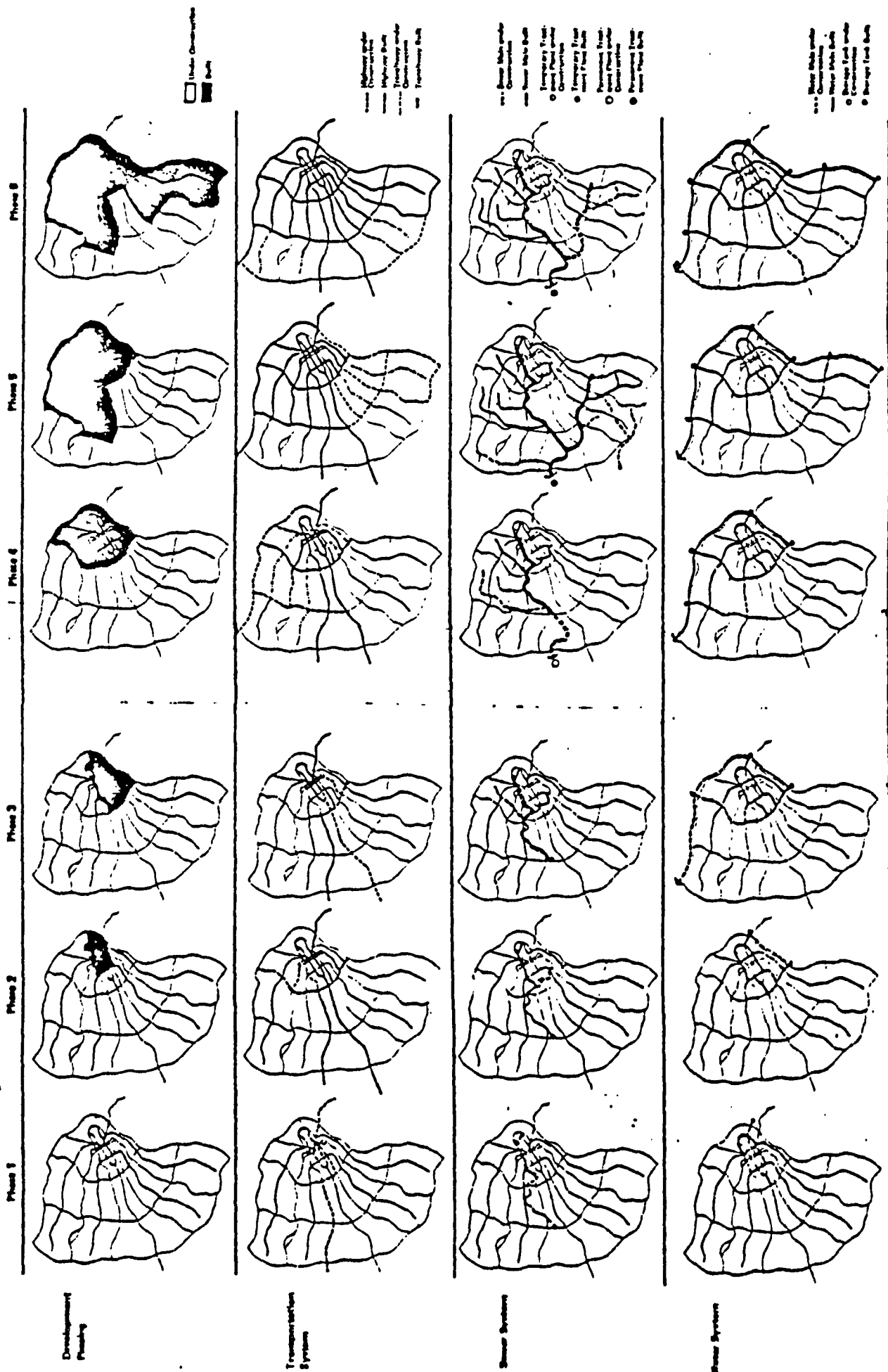
18.20 Eighteenth, the creation of satellite towns and the NFCC could result in the depopulation of rural areas in the Capital Territory. Depopulation of rural areas should at least on theoretical grounds lead to higher returns per worker, and to higher levels of money income and well-being. This could leave rural areas not only with fewer farmers but also the worst farmers. The rapidly growing gap between incomes in declining rural areas and the rapidly growing urban centres could induce further migration. Thompson (1972, page 115) suggested that the cumulative disequilibrium process set in motion seemingly can only end with the abandonment of remote small rural settlements. The NFCC and satellite new towns would not benefit much either, because the demand for their services would be overstretched. The uncertainty is in how to reconcile the interest of an individual migrant, the retention of rural areas and sufficient food supply from agricultural activity, and saving of the NFCC and the satellite new towns from overcrowding of people moving from the rural areas to them.

18.21 Finally, the proposed phasings of the Capital plans were mostly insensitive to uncertainties. IPA proposed six phases for implementing Abuja but the phases

were not timed, as is illustrated in Figure 18.1. The principal characteristics of the schedule include, first, the developmental stages of land use, transportation and the sewer and water systems; second, it was concerned with physical aspects with no regard paid to population, manufacturing jobs, and timing. The growth of the city was seen in physical terms and, even at that, the plan did not anticipate the development of Nyanya and Karu outside the city boundary. Nyanya's development was seen as a means to provide accommodation for low income workers; Karu was a product of political pressure from Plateau State, which saw in the spatial location of satellite towns in the FCT a way of distributing national assets among the three states that contributed land to the FCT. While IPA identified two factors which guided the preparation of the phasing - to minimise the front end capital costs to support an orderly development sequence, and to avoid the need for temporary infrastructure facilities which in long term result in costly duplication or revision; - the planners assumed the availability of funds and the FCDA's capability of implementing the programmes without anticipating shortage of funds.

18.22 On the other hand, Doxiadis Associates' plan was completed in 1982 when the vision of sustained economic growth in Nigeria had started to dim, but it only expressed concern over rather than discounting for the financial uncertainty which could affect the implementation phases of the plan. Still, the plan assumed that 1981 to 1990 would be very important as an "immediate action" period for the implementation of some of the most urgent projects proposed by the FCT Regional Development Plan, including many of the necessary basic studies. Doxiadis Associates anticipated that the influx of population and activities would later take place at an accelerated pace, a large portion of the committed construction projects and some of

FIGURE 18.1 THE N.F.C.C. MASTER PLAN PHASING



the newly proposed ones, and many long-term construction projects proposed by the regional plan must have commenced. Doxiadis Associates assumed less certainty in the second phase which would fall between 1990 and 2000 than in the preceding one. In view of previous expectations, Doxiadis Associates believed that the programme would by the beginning of this period enter its natural course and developments could proceed in an orderly fashion. The planners believed that the population estimation was the most likely for the FCT under uncertain financial resources. As a counter balance to this uncertainty, Doxiadis Associates proposed the implementation of transitional measures such as providing basic infrastructure and facilities, utilizing the components of the existing settlements and minimising or, if necessary, abandoning all "luxurious" elements of the Regional Plan as well as extending the planning period beyond 2000 (Doxiadis Associates, 1982, page 443-446). Doxiadis Associates did not, however, anticipate uncertainties on the provision of manufacturing jobs and housing which was delegated to the private sector. Nor did they anticipate the consequences of urbanization in other parts of Nigeria or of political instability that might occur before the year 2000. Neither of the Capital Plans foresaw that the financial uncertainty would be realised immediately. The fact that the Federal Government had to revert to Lagos in 1983 for the celebration of Independence Day when, in 1982, it was celebrated at Abuja, was indicative of the crystallisation of the uncertain occurrences that were not identified by the decision-makers in 1979-81.

18.23 After reviewing the problems facing Abuja and the FCT, it turns out that enormous uncertainties face the realization of the capital plans. The reason is

that either the planners did not think of the problems or they dismissed them as unimportant. Hence, the plans had to face many uncertainties and had fewer problem resolving frameworks.

Toward a Change: What Action is Possible?

Nigerian Pluralism: The Starting Point

18.24 During the 1979-1983 period, the FCDA and FCTA operated within this uncertainty ridden environment, and the question now is: How might the FCDA or a reorganised agency or agencies better manage development between now and the year 2000?

18.25 Given the difficulties, the starting conditions upon which the recommendations should apply are: (i) for the Federal Government to recognise the factors that affect the realization of policy objectives; (ii) to implement the recommendations, and (iii) to recognise that implementation should start with conditioning individual Nigerians.

18.26 The instability of the statistical base in Nigeria was mainly due to the dynamics of change in the political, economic and social spheres. This problem may be better appreciated from the fact that since Independence in 1960, the country's political structure changed three times - from the three region structure of 1960 to four region set-up in 1963, then through a twelve-state structure in 1967 to a nineteen-state structure since 1976. Already, twenty more states have been approved by both the National Assembly and the Senate. Changes have also occurred in the traditional institutions, for example, the traditional role of the emirs, obas and chiefs in local decision-making has changed from that of

dominance to an advisory capacity in which they are nominally insulated from partisan politics. The gap between the rich and the poor or between the rural and urban centres is increasing. In urbanization processes, the concept of new towns has been changing from zoning primarily based on racial to zoning based on social classes. Redistribution of population and jobs has been intra-regional rather than inter-regional.

18.27 What has not changed is the perception and application of the "concept of tribe" by Nigerians. Pluralistic and inequality structures augment the potentiality for authoritarianism and instability (Smoocha, 1978, page 258). Against the background of undemocratic and pluralistic tendencies, Nigeria's goal is to enhance national cohesion through the implementation of Abuja's programmes. The case of Switzerland is striking, though the method by which it achieved consensus despite pluralism is not clear to us. For over a hundred years, social solidarity has not been shattered despite a fairly high degree of ethno-linguistic pluralism. The Swiss exception may prove the rule but, more important, by its mere existence, it suggests that under certain conditions peaceful co-existence among pluralistic groups is a viable possibility (Smoocha, 1978, page 258).

18.28 To ensure support for Abuja, sufficient Nigerians should be convinced of the need for national unity. The Federal Government has actually started on the right foot by adopting a federal system and building federal colleges for young Nigerians to attend. Furnivall (Nicholls, 1974, page 39-40) suggested two courses of action; first, the conversion of a plural society into a federal state; secondly, the encouragement of nationalist feelings among the capitalist groups and of capitalism among the natives. This would lead to the gradual reintegration of the society,

he said. The early association of Nigerians from all over the country in these federal colleges intends to broaden their horizons, and to instill the notion of belonging to a wider community than their respective homes and states. The education system should emphasise the study of Nigerian languages in schools so that children might speak at least two languages other than their mother tongue. All the mechanisms that remind a person of his or her bias against other tribes should be de-emphasized, such as requiring an applicant to a school system or for a job to state in the "forms" his or her tribe or religion before they are considered. The implementation of these proposals might not involve any extra cost to the government.

18.29 The situation where urban Nigerians cannot live on equal grounds should not be allowed to recur in Abuja. The development of Abuja must be monitored to prevent a repetition of the situation in Lagos, where one tribe has dominated almost all the means of production in the city. The implementation of the land allocation policy, of administrative arrangements and of the staff structure of Abuja which might influence the realization of the objective of letting Nigerians live in equality must be monitored, and where necessary corrected as early as faults occur.

18.30 The causal forces generating urban immigration include provision of high and low-skilled jobs, housing and security of life and property. There are also other considerations of individuals. Since these forces can hardly be assured in the FCT and Abuja, the FCDA must be prepared to recognise that a reduced population growth rate implies concentrating on essential facilities and, furthermore, that contingency planning is a central element of strategic design.

18.31 Analysis of Abuja cannot avoid attention to the Nigerian pluralistic and dualistic structure, which has become the main source of conflict and instability in its political, social and economic life. None of the existing tribal kingship systems in Nigeria is capable of being employed in the Capital City because the indigenous population have been relocated and their erstwhile chiefs cannot claim any suzerainty over any part of the city and, also, since the kingships are modelled on tribal patterns none is a good representation of other systems in the country. Considerable differences exist among religious groups too; even within a religious institution there are various subgroups. Their unity is not an essential criterion for their co-existence and therefore can be allowed to operate, provided none constitutes a danger to the peace of the land. The age grades on the other hand remain a traditional institution whose adaptation to modern urban systems is an essential marriage between traditional and modern systems. The establishment of an age grade institution in the NFCC neighbourhoods need not undermine any sectional interests. In a pluralistic society, age grades or similar institutions can act as a unifying influence as a modern Nigerian society develops. The age grade is unique in its bias on the developmental aspects of society. However, initially, the institutional goal might prove a difficult task to achieve in a society which is presently pluralistic in thought and need, but as the neighbourhood matures its institutional goal becomes increasingly realizable.

18.32 Equality of all persons is enshrined in the Federal Republic of Nigeria Constitution (Section 17 of the Nigerian Constitution). How can kingship as practised in Northern and Western states of Nigeria, republicanism in Eastern states and an individual

equality be reconciled in Abuja since it is the goal of the Nigerian government? Though low income elements enabled by education and recent acquisition of wealth have been able to penetrate all centres and positions of power, more equality is still desirable. In Abuja, the chieftaincy or rulership must not be a hereditary one. It should be an elective post such as that of mayor in other countries, based on individual merit and not on birth or origin. Capital cities should be seen as a class within new towns and not a proper place to transfer all the stereotypes of traditional settlements. The chief of Abuja - or whatever is the chosen designation - should be removed from the conception of tribal leadership, to reflect the status of the holder as the patron of all Nigerians inhabiting the FCT.

18.33 Religious tolerance is the Federal Government goal. Therefore, in Abuja and other cities religious groups should limit their propaganda to expounding their faiths and not criticise other religious sects. The diversification of interests and a willingness to commit resources to different issues are an indication of religious groups added strength and self-assurance. It is likely that a shift towards a multi-issue pressure group might detract from the centrality of the religious issue and thus promote moderation and tolerance. Thus, it is recommended that in Abuja in addition to age grades other social groups be encouraged, such as youth clubs, social clubs, environmentalist organizations and others.

Investment Sources:

18.34 The financial arrangement at Abuja requires resource diversification to reduce uncertainty. Following the current situation where foreign countries and international financial organizations are increasingly

unwilling to lend money to developing countries (see Section 15.45-49 above), even when loans are made imported capital is hardly ever adequate, perhaps only useful to supplement domestic savings and resources in the short run. Or given a situation where a country depends mostly on one source for external capital and where the factors that affect the source are beyond the control of the host country, domestic savings and management are necessary.

18.35 Economic development results from such factors as investment, entrepreneurship, training of workers, proper public administration, political stability and so on; it is nevertheless true that developing nations are unlikely to develop without an increase in their stock of capital. Capital accumulation may be regarded as the core process by which economic development will be made possible.

18.36 This involves the steps of increasing the volume of real savings, collecting and then channelling of savings through appropriate mechanisms to investors and priority areas.

18.37 "Capital" is defined as physical capital, that is long-lived producer goods that are the end result of investment such as machines, equipment, buildings, infra-structural capital, inventories and so on. This excludes human capital (the embodiment of investment in human beings) and financial capital (those liquid assets which can easily be exchanged for goods but are not physical goods in themselves) (Kindleberger, et al., 1977).

18.38 However, the process of saving and investment requires financial capital and financial intermediation to facilitate both mobility and liquidity. Further

attention is drawn to the importance of human capital since, above all, decisions to save and invest must be made and implementation be supervised by human beings. It follows, therefore, that the best way of breaking the vicious circle of poverty and low resources lies in designing the most efficient and effective systems by which the optimum rate of capital accumulation can be achieved. Gill Richard (1963) argues that capital is important and crucial to economic development since it plays a "many sided role in increasing an economy's output".

18.39 It is necessary to recapitulate that developing countries which have involved themselves in the costly venture of creating capital cities, or those which are in the process of embarking upon similar programmes, must realise that domestic savings are the bedrock of success. Domestic savings may be generated voluntarily or compulsorily through public policies. It is not surprising, therefore, to find most, if not all developing nations adopting either a completely centrally planned financial system or a mixture between a Capital Market and such a centrally planned system, both for drawing upon the available saving potential and for directing investment. The Capital Market is defined as that complex of mechanisms through which intermediate and long-term funds are collected from savers and extended to investors in both the private and public sectors. E.A. Shaw (1977) defines a capital market as "the whole organised financial system" including commercial banks, and all other financial intermediaries, and the short-term as well as long-term primary and indirect non monetary financial claims. It is not a particular place or institution and consists of a host of organizations from investment companies, stock exchanges, pension funds, savings and investment banks, and all similar

savings investment and financial intermediaries. Capital Market is a set of institutions and markets whereby those who are willing obtain capital (equity or loan capital), raise funds through the issue of some form of financial assets, for example shares, stocks, bonds and mortgages.

18.40 Forced savings rely on monetary measures, fiscal regulations, controlled inflation and centralised control, planning, direction and management of economic units. The question of why the savings are made arises and attempts to provide security can be seen in the saving attitude of individuals. A serious dilemma is posed by lack of appropriate institutions, especially where private entrepreneurship is weak and government is inadequately equipped by training, experience, or the use of inadequate personnel to substitute for it. In a situation like that, it becomes difficult to decide as to what areas to invest in and who to entrust with the available capital.

18.41 To foster an increase in total voluntary savings, a host of "saving" institutions are required to attract and collect small savings, act as financial intermediaries and issue a great variety of financial assets.

18.42 The commercial banks that were influential in Europe and America seem to have limited roles in Third World Countries, because many are foreign based and have already established certain guidelines and procedures that, of necessity, have the standard of the developed world. The local economic and political circumstances prevailing in most of the developing countries may not permit an extensive role.

18.43 The government institutions may include (a) government-sponsored development banks oriented towards specific sectors or towards especially designator

regions, (b) thrift institutions on the lines of postal savings and loans associations, (c) Credit and Co-operative Unions based on self-help or service needs, together with (d) traditional financial institutions such as insurance, banks and mortgage houses. Even in the traditional indigenous societies, self-help institutions, social clubs and organizations have been used (see Chapter 4 above). Some of these institutions can provide leadership, though limited in most urban developments.

18.44 Paul Porter (the Director of the Urban Recovery Project at Cleveland State University, Ohio, during his visit to Strathclyde University, 1982) gives examples of how in the city of Cleveland the medical industry has developed a neighbourhood by developing housing and attracting medically oriented social triggers to it; in Indiana, the Insurance Company had to concentrate its investment in the city by redeveloping 200 housing units and, in the city of New Haven, Yale University took the initiative to open classes for those who cannot attend classes in the morning to attend in the evenings.

18.45 Private bodies at local level also play an active part in economic development in France, Germany and America, where Chambers of Commerce, and related organizations composed of local firms have an important role in business promotion. In Germany, Chambers of Commerce and Chambers of Craftmen are powerful bodies who help to direct the formation of local economic policy, with large firms becoming members of the Chamber of Commerce and smaller and craft-based firms becoming members of the Chamber of Craftmen. Chambers of Commerce have also been active in America, where the local business associations have frequently been concerned with economic

regeneration and helping to arrest central business district decline, after an increasingly large number of commercial concerns moved from the central business district to suburban shopping centres in the late 1950s (Hart, D.A., 1980, page 18-19). Although there is extensive political criticism of these developments, in those which have been publicised as successful, the city authorities had to make known what resources were available in the city in order to attract private investors or institutions. In addition, they had to let people see some vision of what the city could be. Lack of confidence in cities is a contributory factor as to why some people hardly identify themselves with city development.

18.46 Comparatively, Brasilia to some extent made use of financial institutions to implement the new city projects. Chandigarh did not. Abuja with present financial constraints may not be able to continue to go the way it had started by depending on centralised financing, but must look to new institutional mechanisms. Given effective leadership, visible and continuing political support, good operating relationships with other public and private bodies and highly motivated staff (unfortunately Abuja has had few) institutional financing could function as a significant vehicle for local economic development with mobilization. These preconditions are asking a great deal, but when they are fulfilled as they have been in Brasilia, Ciudad Guayana, they appear able to provide urban development with economic vigour, pace and initiative.

18.47 The colonial administration and succeeding national governments might have achieved certain controls over land and development, but it was short of the

control provided of the State and Federal Government by the 1978 Land Use Decree. The FCDA and/or Ministry of the Federal Capital Territory has the opportunity and power to collect and use income from property rating to finance new development, without local opposition. While the FCDA cannot generate revenue through the sale of lands, the option is open to it to charge the developers a full development rate on their properties. Alternatively, moderate land rents could be charged if the rent control measures were successfully enforced, implying that houses built by private developers would be delivered to the public at moderate rentals.

Creation of Employment:

18.48 The present trends in investment in the manufacturing sector do not reflect optimism for the future of the FCT and Abuja. Therefore, it is recommended that the FCDA must accept a "predicted risk approach". Every planning decision carries with it some risk in so far as it has consequences that cannot be predicted with certainty. The extent to which this risk is subjectively experienced, that is, the perceived planning risk, is the function of (a) the perceived possible negative consequences of failing to create a sufficient number of manufacturing jobs at Abuja and in the FCT, and (b) the decision-makers' uncertainty concerning these negative consequences. The increasing probability of failing to provide adequate manufacturing jobs could be deduced through careful analysis of the state of the world. It is then the decision-makers who must be able to select from alternative solutions which are less risky.

18.49 In the FCDA and FCTA, about 350 contractors and 250 consultant firms have provided the main sources of employment for the FCT. When the import and foreign exchange restrictions were imposed in 1982, Abuja could not avoid being affected by the delays in delivery of machinery and spare parts. By late 1982, contractors were laying off thousands of workers. Contractors have also been hit by long delays in payments owed to them; early in 1983 they were owed at least N100 million. In spite of the present uncertainty of jobs, rural-urban migration to Abuja and the FCT has continued. In order to regenerate the growth of employment, the FCDA or the Federal Government must inject funds into Abuja in order to minimise mass laying off of construction workers and their eventual emigration to other parts of the country or, alternatively, they might take to illegality in order to earn their living.

18.50 Abuja and the FCT face an uphill task to attract both foreign¹ and local investments. They face competition from other State governments. Muller (Irle, 1982 (ed.) page 422) said that in situations of conflict, competition should become more predominant as bargaining² abilities and bargaining positions become increasingly equal. Deutsch (1973) says that a competition permits only one to be the winner; it implicitly bears the risk of destructive consequences for conflict resolution and

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1. Costain is reported to have recently won a management contract for an ECGD-backed contribution by British firms (The Guardian, November 14, 1983).
 2. Bargaining abilities refer to interactive competence while bargaining positions refer to variables such as threat capacities or social support.

bargaining (Irle, 1983, page 422). According to Siegel and Fouraker, yieldness of one opponent (e.g. a State Government in Nigeria) should elicit toughness of the other opponent or vice versa, while Osgood contends that one opponent's "tempered" yielding should stimulate yielding by the other opponent, thus leading to a process of increasing mutual concessions (Irle, 1983, page 436). The Federal Government would not be interested in the destructive policy of preventing all industrial investments to any State in preference to the FCT and Abuja, though the desire to develop Abuja is a cardinal Federal objective. Competitors with adequate pay-off information tend to act in accordance with Osgood's model. Therefore, how can industrial investment information be made available to the FCDA/FCTA and other competing State governments? Also, what would constitute the pay-offs? The role of the Ministry of Industries should include information giving and receiving which can be processed and made available to both investors and States' ministries of industries. The information should include the potentialities of individual states which should be the bases for industrial locations. In view of the FCDA's determination to save the NFCC from pollution generated by heavy industrial activities, all foreign applications for light industrial investments should be directed to Abuja unless otherwise requested by the investors, whereas heavy industrial investments would be determined by site factors. These could constitute the pay-off for the competing States and the FCT.

18.51 The third option for the FCDA is to introduce incentives in the agricultural sector which might create alternative jobs for the unemployed in the FCT.

Standards:

18.52 The type of houses demanded by the FCDA is very high by Nigerian standards. It would be naive to expect people moving from rural areas to Abuja to be able to afford to buy the type of houses currently being built for the FCDA or, indeed, even to build such houses for themselves. All the same, the Federal Government depends upon poor rural immigrants in order to help the growth of the city and the territory. In the present financial uncertainty, the only way to reconcile rural-urban migration and assumed housing demand, is to lower standards to a point closer to the consumers' incomes. This might not produce as beautiful a city as the IPA and Doxiadis Associates plans had envisioned, but it would enable more houses to be built to meet the desired demand by the year 2000.

18.53 Viewing the situation differently, the Federal Government could choose to no longer pursue the development of Abuja with the speed of 1979-1981. The plan need not be destroyed, but the Government must determine its principal priorities and leave other areas for future adjustment. Also relevant to standards and scales is the concept of four strata of service centres in the urban structure, starting with the central area and moving to the sector centre, the district centre and down to the neighbourhood centre. Already some of these centres have been implemented in the two already developed districts; but the crucial question is whether they would work when completely implemented? Their implementation also entails an enormous cost in public resources. The view of this thesis is that reduction in scale is important. The elimination of the sector centre would not affect the efficiency of the city, but would rather make

development costs more effective. This is an instance of the opportunity to adjust standards on a progressive basis.

Planning Development:

18.54 Given the concept of affordability as a strategy for a land allocation in the new state capital cities, the lower income groups would find themselves edged out of their cities. The consequence would be the development of one class community - the well-to-do. The Government's intervention in low income housing in Nigeria has its limitations. The finished houses which had never met the targets for any urban centre were either distributed on the basis of political patronage, or sold to people who could afford the relatively high costs. The FCDA's intervention in housing at Abuja is limited to the development of the ADCP and Northwest District, in the FCT satellite new towns of Gwagwalada and Karu and about 500 housing units in each of the Headquarters of the Development Areas. The rest of the housing provision for an estimated population of 3 million by the year 2000 is delegated to the private sector. Operating within this policy of limited participation, serviced plots are allocated to private developers made up of individual developers and a few estate developers. The Federal Government has been unable in the past to control housing rents, nor would it be expected to control them at Abuja. The FCDA could not also expect the private sector to provide houses to the masses at standards that would be comparable with public housing provision. The implication is that the prices of over 66 per cent of the houses to be built in the territory would be determined by market forces.

18.55 Another problem arises from the standard of housing the FCDA would like to maintain in the Capital City. To achieve these standards, private developers are expected to submit their building plans to the Planning Department of the FCDA which will satisfy itself that the plans have achieved standards.

18.56 The continued urbanization in other parts of Nigeria creates an additional uncertainty as to whether private developers would prefer development at Abuja to elsewhere. The options available to the FCDA include, first, to introduce institutional participation in housing provision of the NFCC and the FCT. Nigerian social clubs and organizations have been known to involve themselves in public building (halls, schools, hospitals, etc.); they could be requested to invest in residential developments in the FCT and NFCC. This could be done by allocating them serviced plots to build dwelling units. The commitment of such funding to Abuja would have far reaching effects. It would not only provide houses for immigrants, but also influence much needed tribal mix at Abuja. The fact that these organizations and institutions have something at stake would enhance their sense of belonging to Abuja. Also, if the Federal Government and the FCDA could introduce institutional and organizational participation to housing development, it would be necessary to more clearly work and plan with the objective of tribal mix in mind. Any programme which openly introduced tribal based institutional participation should be able to monitor the level and extent of tribal, social and economic heterogeneity that can be supported.

18.57 Alternatively, the FCDA could introduce the site and service approach on plots within an area of perhaps 1000 hectares outside the city boundaries, but near enough

to minimise costs of transportation. The plots could be allocated to lower income groups to build with traditional methods. The plots would be large enough to permit the occupier to improve on his or her building when his or her income improves. The implication is that this would reintroduce zoning in the urban structure. However, this zoning would be differentiated from the type of zoning perpetuated in the Type 1 new towns where segregation of races was legalised. The occupants of traditionally built areas could move into the city when their income improved. The option, if adopted, would reflect the evolution of urbanization processes in Nigerian cities, by combining both modern and traditional methods of house building. Ibadan and Kano combine both modern and traditional areas.

18.58 In the present circumstance of a poor oil market which had become the principal source of revenue in the 1970s, the Federal Government should recognise that traditional Nigerian societies developed viable institutions and organizations which had in the past (and still do in the present) executed development projects. Some of these include the Moslem Youth Organization, Christian Youth Fellowship, Social Clubs, the Ogboni Society and the Age Grade Institutions. These institutions or organizations have in their memberships not only the rich but the elites of the Nigerian society. Their accumulated wealth is rarely taxed. The full recognition of these untapped resources implies that the Federal Government will involve the institutions in the development process, especially at Abuja. First, the Federal Government or its agency must make Nigerians realise what opportunities exist in Abuja and the FCT and introduce shares or financial bonds, which might be open for purchase by both individuals and by social organizations. The life

term of the bonds or shares should be short enough to give the purchasers confidence that the bonds would be redeemed in their life time and long enough to be able to yield dividends to the Federal Government, especially in its bid to provide funds for Abuja projects.

Investment Risk:

18.59 As a rule, consumers make only those choices that carry limited perceived risk (Cox, 1967), with decisions whose risk is too high being either abstained from or altered by strategies for reorganizing information gathering, for example, by augmented or selective information seeking habituation and so on which, after careful analysis, can provide a basis for modification of the policies. Development agencies have to prioritise their projects or postpone their implementation when the economy can no longer cope with them. The need for information of how other capital cities handled such situations is important. The accompanying functional, financial and often social risk of such experiences will stimulate information acquisition behaviour.

18.60 Costs of development are perceived differently by different persons and bodies. An individual thinks on private gains and unless the anticipated gains exceed the costs, the subject would not invest. Firms have different values and might not locate unless they can predict success in future. Firms can more easily quantify the returns derived from investment projects, since the goods they produce are sold to the public; this is not easily possible with bodies that provide social services. However, uncertainties related to changing tastes and technology which affect firms' products can induce them to use a pay-off period criterion for investment.

According to this criterion, if the returns are not likely to exceed the costs after a stipulated number of years (depending on the unpredictability of changes in tastes and technology or any other factor) the project should not be undertaken, regardless of the rate of interest. There are possible precedents here for planning programmes.

18.61 In the same way, development agencies used to the services of private consultants when funds are available can change to "in-house" designing services when funds are in short supply, or, when an organization starts losing value from the services of its staff, it could decide to fire the affected employees and save costs.

18.62 Cost-escalation rules for different classes of project should be developed based on systematic analysis of actual escalation in previous projects. A politically influenced estimate to placate decision-makers or influence opponents of the project should be avoided in costing of major projects. Planners should include some allowance for unforeseen factors termed by the economist, Albert Hirschman, "the Principle of Hiding Hand", (Hill, 1958, page 8), and described by Barrett as the "mark-up approach", (Barrett, 1974, page 243). In both cases we need more research in order to discover dependable information. These may include the knowledge of those factors that affect the budget-making process:

- (i) Size of the national budget - the larger the overall budget, the more money is likely to be available to Abuja programmes.
- (ii) Availability of complementary expenditures or loans from foreign sources. The presence of such funds

facilitates project implementation, especially those that have a foreign bias. Therefore, there is a tendency to give priority to those projects which have partial outside funding as long as it does not cause undue strain on the budget.

- (iii) Changes in the national economic situation (for example, the price of oil in world market, high importation of food, etc.) as expressed in real income, affects overall capital expenditures.

18.63 The success or failure of the projects and programmes are affected by decisions elsewhere, for example, the success of the housing programmes at Abuja could be affected by decisions in the Ministry of Housing and Environment, the Ministry of Steel Development, the Chambers of Commerce - whose members import the major portions of the materials into the country. The resistance of any of these ministries or bodies are likely to affect the plan implementation at Abuja.

18.64 The decision of the adjoining states, Niger, Plateau and Kwara, to demand full compensation of existing development in the FCT cost the Federal Government of Nigeria about N26.0 million (£22.1 million), such payment fundamentally affected the FCDA budget during the plan period. Two five star hotels are being constructed - one at Suleja by the Niger State Government, and another a few metres from Karu New Town by the Plateau State Government. In the way in which most Nigerians think 'no error is too great for the country', one might consider such decisions prejudicial to the economic efficiency of equally important hotels being built at Abuja, especially when demand for beds is not as high as supply. These are administrative problems. The

question is how good are the FCDA's bargainers in its relationship with outside authorities? The FCDA may require to appoint people with abilities to bargain as well as those who might not be selfish in carrying out the assignments.

Financial Management:

18.65 Lack of funds is not the only financial problem of Abuja. There is uncertainty that the money provided will be wisely used. In the decree setting up the FCT there is a provision of internal auditing; but why it could not work and dictate frauds early enough before much harm was done is a question for the FCDA to answer. Abuja's fraud stories have been reminiscent of financial leakages in other sectors of Nigerian society - for example the fire at the Nigerian External Telecommunication building at Lagos, the suspension of the Agricultural Development Corporation (ADC) at Nekede Owerri, the financial mismanagement at the Ahmadu Belo University, Zaria, in 1983, were associated with fraud. While the Federal Government has an adequate capacity outside the relevant agencies to audit Abuja's accounts, or any other public sector accounts, what is lacking is the ability to make the body function regularly and to reduce to a minimum the period it takes to audit public accounts. Such early monitoring of the incomes and expenditures of public agencies has the following advantages, first, to expose financial leakages; second, not inevitably ensuring that funds provided either by the Federal Government or private institutions are optimally used but, to a higher degree than now, injecting confidence in private investors in Abuja.

18.66 Notwithstanding the overall continuity of the existing funding system, several changes ought to be made in view of stories of previous failures. Proven success stories of British new towns, though generally on smaller scale and none of them is a capital city, is enough urge to ask how they were financed. An interview with James A. McIntosh, the Cumbernauld Finance Director, on 26th October, 1982, gave the following information:

18.67 "The New Town Development Corporation secures its finance primarily by way of advances from the Treasury via the Secretary of State for Scotland in respect of the net outgoings of the Corporation. The advances are part of a 'National Vote', the total of which is amended from time to time by legislation.

18.68 The New Towns Act 1980 makes provision for all the United Kingdom New Towns to receive an increase in Net Cash advances from an existing limit of £3,250 million to £3,625 million, or such greater sum not exceeding £4,000 million.

18.69 Interests are charged on the advances but such interests are adjusted from time to time in line with National Loans Fund interest rates. This has ranged over the years from $5\frac{1}{8}$ per cent to $17\frac{3}{8}$ per cent, averaging 10.41 per cent to March, 1980. As each loan is taken up by the Corporation, the rate of interest is fixed and further loans are then taken up and accumulated until such time as the rate of interest changes when all the loans at that rate are consolidated.

18.70 Various checks have been introduced in the financial process. Besides being conscious of the interests to be paid on the advances, each cost is treated

separately. "If you underspend the money granted to you, you lose the balances; if you over-spend, it will be cut off from the subsequent grant", he said. The government does not allow flexibility with regard to finance.

18.71 There are also arrangements for modest bank overdraft facilities (present maximum £750,000) which, however, must be repaid within each financial year.

18.72 As the Town develops, so also does the income from property rents increase, sale of assets including houses and industrial premises provide further sources of income and consequently the New Town is financed by 'Net' advances from the Government, that is the cash requirements of the Corporations Capital and Revenue expenditure programmes less all cash receipts. There was a rent period, say three-year period. But now it is only one-year period and the rent is dictated by the Government. This will compel a New Town Corporation not to overcharge the residents. In Cumbernauld, however, every endeavour has been made to reach a situation where rents, together with subsidies, would meet the pooled costs of interest and principal on loans plus repairs and administration of the housing stock. In furthering this objective, the Corporation was instrumental in introducing in 1963 as a scheme of 'Graduated Rents' for standard housing throughout the town where tenants who were within the scheme could obtain reductions on standard rents; the scheme was subsequently adopted by all the other Scottish New Towns at the time. This takes into account varied income groups in the community. This proved a most equitable scheme and had the benefit of flexibility in some housing areas which were out-with the 'Graduated Rent Scheme' and the tenants accordingly paid standard rent, thus catering for the needs of all sections of a rapidly growing community.

18.73 Thus the British type of financial arrangement is recommended for Abuja. This would require the implementing Authority to be responsible for repaying all future grants which has been made to it. Such requirement is likely to instill prudence where it is lacking and increase it where it exists in Abuja Capital City programme implementation.

18.74 Furthermore, while a lot is gained by maintaining standards that are comparable internationally, Third World Countries should bear in mind that theirs is a developing economy and their behaviour reflects the standard of economic and behavioural development. Therefore, it is seen essential that:

- (i) presentation of receipts for goods purchased for the FCDA must be supported with the accompanying goods;
- (ii) Consultants and Contractors should be required to locate at Abuja before contracts are given to them and the FCDA must scrap off the payment of "refundable fees" to Consultants, especially those incurred on travelling and hotel bills unless those sponsored by the FCDA and FCTA. The measure has the advantage of making the Consultants have more time to study their sites and execute them appropriately. It will also cut down the unnecessary expenditure of the FCDA of having to pay for the transport and lodging bills of Consultants who have to come from one end of the globe to another in the name of executing the Abuja programmes.
- (iii) In respect to man-power consideration, the FCDA has two options to choose from: to retain few core staff and use the services of outside Consultants or to maintain a large staff and the services of

few Consultant advisers. The last option is recommended. It would not only help to produce experienced Nigerian staff who can handle similar services in other parts of the country, but would help to cut down millions of naira being paid to outside Consultants.

However, the development of local staff will depend partly on an effective management devoid of tribal influences and partly on training. Moreover, it would seem unwise to retain the services of most of the "self-styled" Consultants who worked at Abuja between 1979 and 1982. They were businessmen without professional training who depended on the hired services of a few inexperienced architects, planners and engineers. The results were improper execution and to some extent abandonment of tasks.

18.75 Costs for housing can be stabilised by controlling the price of materials. The "kick back" or "back scratching" or "reciprocity" approach can be adopted. The principle is that large customers can demand special services in terms of products. Countries whose citizens are awarded contracts at Abuja can be required to supply her with building materials under special arrangement. Since the bulk of suppliers' business is tied up in the contract, they may have little choice. At Milton Keynes New Town, countries which have relations with the new town were required to build model houses for the new town. Abuja ought to try some of these measures.

Administration:

18.76 Ethnic differences have permeated the FCDA management structure. The effects have ranged from failing to employ people from particular parts of the country when there were vacancies, to refusal to assign to already employed officers duties appropriate to their qualifications and experience. The tendency to assign highly sensitive posts to inexperienced officers on ethnic considerations has increased the uncertainties of achieving a high level of success in Abuja. Considerable inequalities have been superimposed on the various ethnic groups working at Abuja by the political elite which controls the administrative machinery of the Authority since 1979. The consequence of this situation has been indifference among the disadvantaged groups. The existing administrative structure made the disadvantaged groups inconsequential in the affairs of the FCDA.

18.77 The continuation of present trends in administration in the FCDA is not likely to reduce future uncertainties. Equitable representation of all sections of the country is possible in administrative duties where the level of risk is not so high, but in tasks that require expertise a high level of efficiency should be demanded. This view is supported by the fact that aliens are employed in Abuja. The question is which section of the country do they represent? A mix of the two approaches of limiting the application of equality to administrative functions and of making the maximum use of available expertise wherever and whenever it can be found is, one can argue, capable of first helping to raise the level of the FCDA staff awareness and of its capacity to anticipate and reduce uncertainties and, secondly, of giving all parts of the country an equal opportunity to be represented

in federal establishments, without compromising efficiency with equality and ethnicism.

18.78 The effects of the FCDA's style of management on staff vary from department to department. The relationship between different heads of department and subordinate officers will continue unless there are changes occurring on individual levels, since some of these relationships are basically informal. It is difficult to effect a positive change where some groups of officers are disadvantaged on ethnic grounds, where the agency accepts the situation as normal or condones it because it agrees with the institutional concept of the power elite. However, under normal circumstances, good behaviour needs to be reinforced with incentives and bad ones need to be punished. Ferster and Skinner (1957) said that behaviour can be maintained through intermittent reinforcement. Intermittent reinforcement can be either by interval or ratio schedules. In interval schedules reinforcement occurs only when a behaviour is injected after a specified time period has elapsed. These time periods or intervals can be either fixed or varied. For example, reinforcement for good performance can be staff promotions at intervals. Reinforcement in ratio schedules occurs after a behaviour is performed at a specified number of times. The ratio between the number of times a behaviour is performed and the occurrence of reinforcement can either be fixed or varied. For example, a contractor is paid only when he has performed a certain amount of work, i.e. stage payment. This will help the contractor to adjust his work habits. One would have expected some punishment to be meted to contractors that have collected their contract money without having completed their contract, and also to the officials that approved such payment. This is an obvious case, but no punishment has been recorded for

default in the FCDA and FCTA.

18.79 Finally, the concept of discriminate stimuli provides essential information concerning the appropriate and acceptable behavioural patterns to be expected in different situations. Elimination of behavioural patterns depends on punishing a particular behaviour. A punisher helps to decrease the frequency of behaviour that precedes the punishment. Punishers can be classified into positive and negative punishers. Terminating an appointment or reassignment of an official in order to introduce changes into the environment reduces the likelihood of the future occurrence of behaviour; in respect of a building contractor, demolishing the structure that was poorly constructed is a complementary example of positive punishment. A negative punishment could be blacklisting of the contractor by the Authority, and, therefore, refusing him the award of future building contracts. Similarly, an industrialist who pollutes the river could be negatively punished by withdrawing his licence.

New Towns:

18.80 The continuation of the present trends of designation of new towns and new state capital cities into the future will mean that before the end of the century, Nigeria would have comparatively too many to be able to manage the developments as now intended. No comprehensive assessment of their success or failure has ever been made. It might not be long, however, before doubts are widely expressed over the new towns concept, although these might not be directed at its basic philosophy but at the unrealistically large numbers of new towns that are being proposed by State Governments, when there are signs of abandonment and unfulfilled objectives.

18.81 As presently conceived, the NFCC and the FCT satellite new towns were excessively ambitious in relation to the number and overall population size and to their preferred policy of population redistribution, when both the Capital City and the subsidiary new towns are dependent on importing population for growth. These targets were proved untenable from the calculations made in Appendix 14.1. However, the reduction of proposed target populations would restrict the ability of those new towns to fulfil certain of the roles with which they were originally assigned, for example, the policy of decentralization (Doxiadis Associates, 1982, page 59). What is required is management of a new kind which will better match future demand with supply and resources. Certain State new towns have already faced problems of finance, notably Ajoda and Owerri. The phasing of the new towns has lagged behind schedule and because none of the phases had even been successfully implemented, they could neither function effectively as towns free of traffic congestion nor as generators of manufacturing jobs for the unemployed. However, uncertainty of funding will force the FCDA to maintain a priority for the development of the satellite new towns which will consequently reduce their overall population growth.

18.82 The Land Use Decree has specified that each State Government should delineate urban centres. The creation of new States implies that new capitals will be created. Policies have not gone so far as to inform State Governments what roles new towns should serve, the criteria which will determine the need for new towns which could be implemented with the available resources or the method of funding the development of new towns. It has therefore become very necessary for the Federal Government to formulate a new town policy which would form an integral

part of State development policies in Nigeria. The Federal Government should as a matter of urgency set up a group to study the major urban and industrial centres outside the FCT. The principal objective would be to outline the development options for the country. Based on such a study, the Federal Government or any other government could formulate a new town policy.

18.83 No successful policy on rural-urban migration is possible in the FCT as long as there is imbalance between the rural areas and urban centres. In addition to the development of fewer growth centres within the FCT as a preferred option, it is recommended that farm settlements be developed within the context of the Green Revolution Programme in the rural areas, which would ensure both urban amenities, a high income for farmers and a high agricultural productivity. Development of farm settlements would imply that most of the fertile parts of the territory would be put into agriculture instead of designating them as new towns which might not be built; it also implies that jobs are created in rural areas. By and large, giving education and a generalised skill, or training and a specialised skill to those who lack them can help to spatially relocate people. As a result, the remaining few growth centres would be saved from overcrowding, resulting from rural-urban migration. This is a situation where flexibility is greatly required.

Policy Monitoring and Review:

18.84 Uncertainties involving values particularly need policy guidance. The FCDA can advocate reference to the political party in power for clear-cut guidance on policy. Certain issues may even be referred to the National Assembly or otherwise to the President of the country.

The Constitution, Section 263, provides that the Constitution shall apply to the Federal Capital Territory as if it were one of the States of the Federation, and accordingly:

263(a) "all the legislative powers, the executive powers and the judicial powers vested in a House of Assembly, the Governor of a State and in the courts of a State shall, respectively, vest in the National Assembly, the President of the Federation and in the courts which by virtue of the foregoing provisions are courts established for the Federal Capital Territory".

264 says in the provision of 263 in its application to the Federal Capital Territory, the Constitution shall be construed as if -

264(c) "references to the Governor, Deputy Governor and the executive council of a State (however called) were references to the President, Vice-President and the executive council of the Federation (however called) respectively".

An extreme scenario could be if the President were indifferent and the FCDA had resource to refer to the Judiciary. However the judicial system with emphasis in rules and standards can produce rigidity. Excessive adherence to the rules and regulations means inflexibility and increasing tensions within and around the system.

18.85 In his study of flexibility in strategic land use planning, Ian Bracken (1980, page 6) observed that flexibility relates to something which should or should not be achieved; the word in every day use relates clearly to the idea of wanting to creatively accommodate

change. In planning, it must refer to the ability of those Capital Plans and policies to be consciously adapted to remain relevant within changing circumstances. To achieve flexibility, the FCDA will have to match the policy instrument (in this case the immigration assumption) against what the economy is capable to sustain and the inherent uncertainty associated with each function. This, however, must be preceded by detailed study of the implications such an action would entail. Similarly, "robustness" implies that a particular course of action should be chosen partly at least on the grounds of its greater flexibility for future choice than other alternative actions. Because of the similarity of both terms, they are used here interchangeably.

18.86 In strategic choice, the robustness test is one of the criteria for evaluating solutions. 'Robustness' according to Gupta et al. (1968) is defined in terms of the number of 'good' solutions (undominated solutions) on the basis of current information, which are retained by the actions taken in response to pressure for commitment. Therefore, strategic choice implies that full solutions over all the decision areas are not immediate, but implies prior awareness of a set of actions from which to choose only when it is important to do so. For example, building eight neighbourhood centres on the basis of 3000 - 5000 persons for a district of 26,000 persons during the initial settlement of a district may not be important, neither is commissioning the design of all of them at a time when there is no pressure on their demand. There is an advantage in keeping options open and maximum flexibility by taking no decisions at all for the time being, especially where there are alternative opportunities whose discounted benefits are greater. This might mean using the time between the decision and

a real demand to translate uncertainty to a predicted risk. Taking decisions to implement any action where the demand is not immediate implies committing funds which could have been utilized in another area. To act fast and change frequently the way things are done (in Abuja) is to increase the opportunity cost of operations. To resist change until the argument for it is overwhelming may be the better part of wisdom for an organization (in the face of uncertainties) which achieves its goals through a high volume of cost in resources (Perrow, 1970, page 58).

18.87 It may be said that we are arguing for a disjointed incrementalist approach in planning. The disjointed incrementalist approach (otherwise known as "muddling through") in planning, can be criticised because by delaying a sharper specification of policy, we may learn more about what is past but gain nothing in regard to increasing our certainty about the future policy environment. In the context of Abuja, 'robustness' is relevant to the implementation of plans to match demand with supply and available resources.

18.88 Monitoring involves the review of planning activities, objectives, policies, human element in the system, even the review of the whole process of the Authority. Through this, the knowledge of the environment is increased. The implementation of plans customarily results in what was neither forecast nor what the management intended. The assumptions on which plans were based may prove to be incorrect. The course of action adopted by the implementation body may prove unworkable. For instance, if by 1986 150,000 persons move to Abuja and there is not sufficient housing for them, the policy of subsidy is likely to be modified. Intelligence and

other experience dictate that in certain conditions the Government will intervene by building houses no matter what was previously proposed. Key events within the organization or agency may influence changes; it may involve reassignment or merging or subdividing departments in order to introduce more efficiency.

18.89 The time-span for the review of each of the activities varies with the probabilities attached to each activity. Normally, the review of activities takes a shorter time-span, whereas the time-span for the review of policies is longer. In situations where things move fast, the appropriate time-span for the review of each activity may be one month. Three months time-span has been employed irregularly at Abuja. However, unexpected events may force the review of policies sooner than would be expected, even though such reviews have a cost factor.

18.90 Similarly, decisions made today may prove wrong tomorrow, anticipation of increase in revenue may lead to consequential cost adjustments because of changes external to the system. Good planning recognises these, and incorporates the need to monitor the developments and be ready to adjust plans to the new circumstances. One can argue that monitoring is a retrospective action, which does not give a better view of the future, but only a longer view of the past. Besides that, we can posit also that monitoring tries to caution us that we should no longer benefit by continuing with the old ways which, indeed, means that it has futuristic implications. What seems to matter is how ready the decision-makers are to rescind their decisions, improve the structure of their organization, take a more open view about spending on the projects and remove obstructions to the realization of

their goals. Monitoring goes on in every day of an organization, but what is lacking is its institutionalisation as a planning and administrative tool to improve the knowledge of the system. There can be changes in the knowledge of the environment, changes in management and in value - the plans must be capable of responding to these alterations.

18.91 Finally, given the developments in Abuja and the FCT up to 1983, it would be wise to abandon the target date of 2000. In view of inadequate resources and the compounding of the uncertainties underlying the implementation of the Multicity programmes, the extension of the target date for the implementation beyond the year 2000 is inevitable. Indeed, targets are dangerously misleading and, in spite of the tendency of some costs of implementation to increase with delay, it is believed that many mistakes and anxiety could be avoided by accepting a reduced speed for the execution of elements in the Capital Plans. The summary of objectives, uncertainties, problems and recommendations are illustrated in figure 18.2.

FIGURE 18.2

SUMMARY OF OBJECTIVES AND ASSUMPTIONS, UNCERTAINTIES, PROBLEMS AND RECOMMENDATIONS

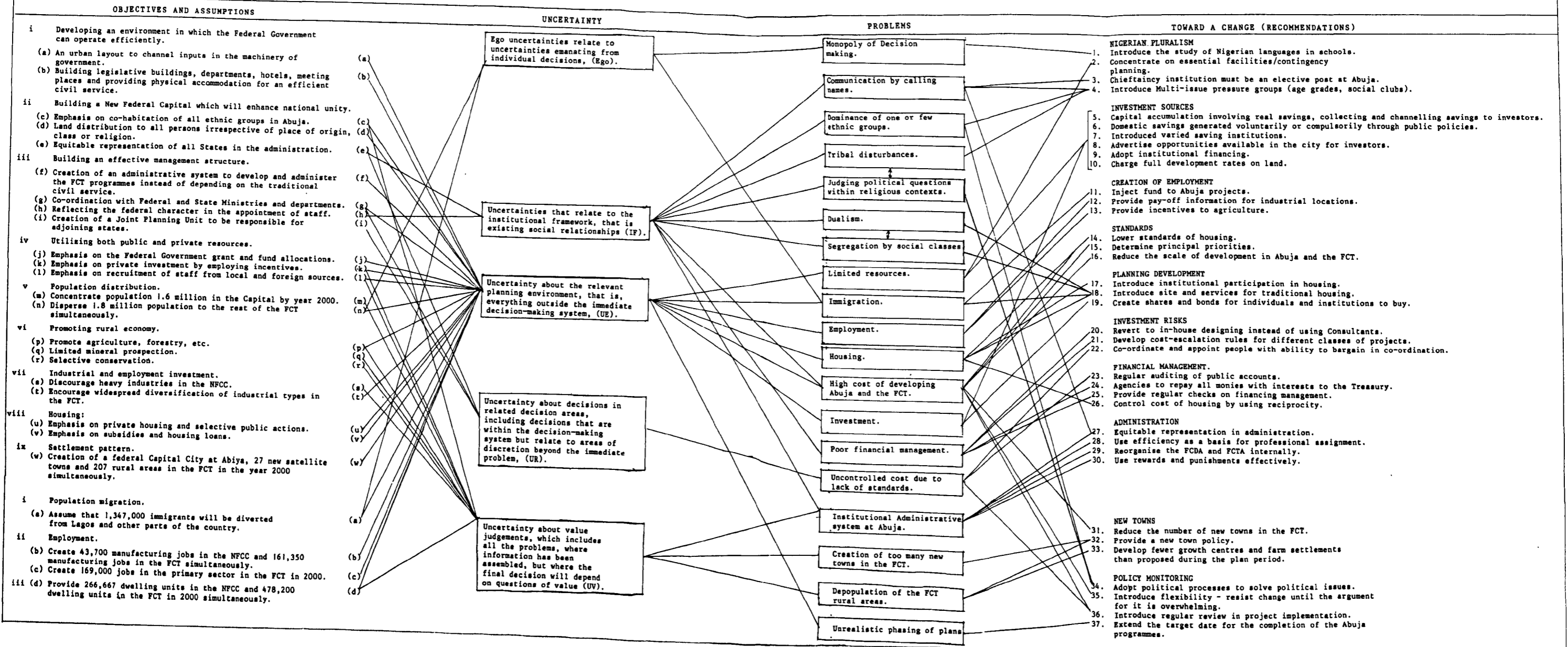
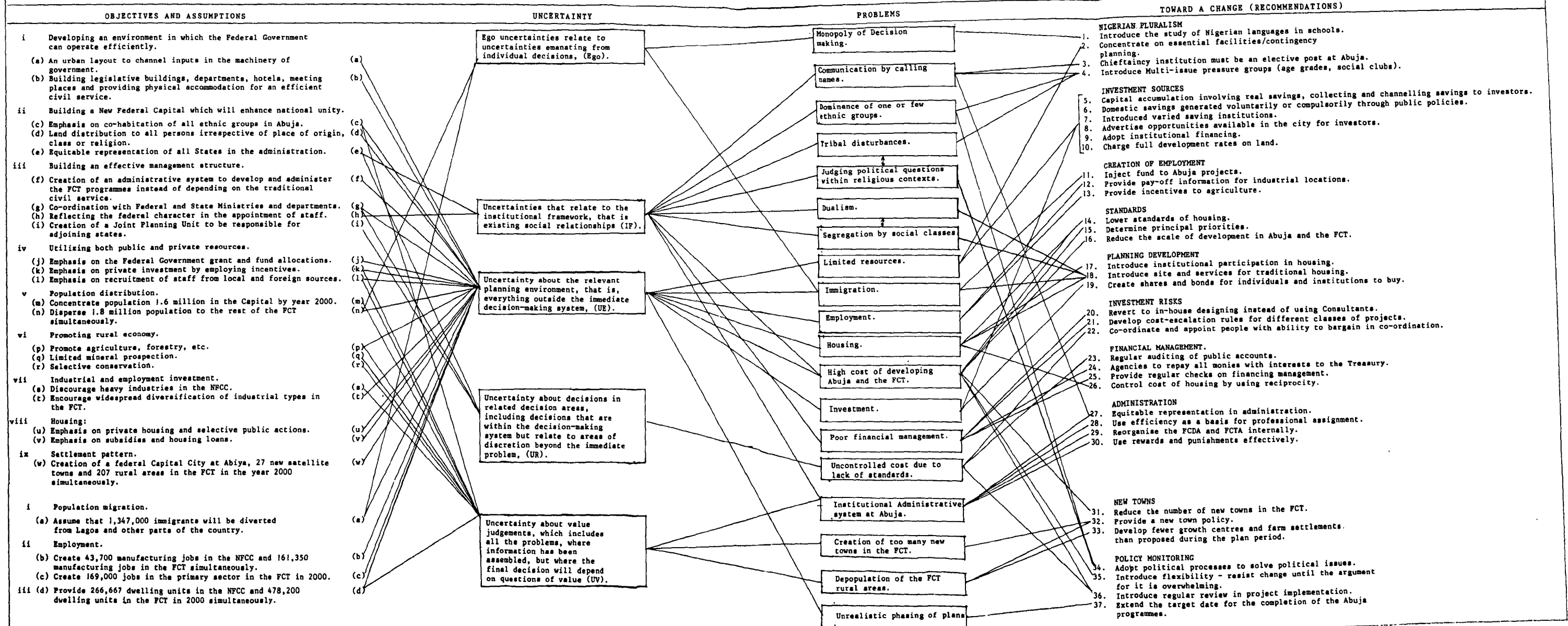


FIGURE 18.2

SUMMARY OF OBJECTIVES AND ASSUMPTIONS, UNCERTAINTIES, PROBLEMS AND RECOMMENDATIONS



19 CONCLUSION

19.1 The focus of this thesis has been the case of Abuja, but many of the issues which it has raised are common to major urban development projects in both developing and developed countries. The cultural circumstances of developing countries and their experience in urban management merely compounds a universal problem of uncertainty in planning lengthy urban projects, which aim at time horizons far beyond the point at which high probabilities of success can be attached to assumptions about future social, economic and political environments.

19.2 What the thesis has indirectly attempted to tackle is a general explanation for failure in management of major urban projects which fail to or ineffectively anticipate uncertainties which, when they arise, may hugely impede the projects' objectives. By reference to the cases of Chandigarh, Brasilia and Islamabad, it has been suggested that Abuja is not unique but is merely another case of the disparities between the perfection of the visions of master plans and the turbulence of the underestimated problems of realization.

19.3 Accordingly, the thesis has treated Abuja within the history of urbanization in Nigeria, within an explanation of tribal systems and customs and within an account of internal events and relationships in the Federal Capital Development Authority. Understanding of this depth and width of context is absent in the master plans by the IPA Consultants and Doxiadis Associates for the Federal Capital and the Territory Area. It would be unfair to criticise the consultants alone for failure to recognise the gap between their plans and the means for their achievement. The thesis documents the political pressures by which difficulties of resources may be

underestimated. It attempts to relate the psychology of planners and administrators to psychological theory from other circumstances. It suggests that Western style town planning in Nigeria, as originated by the Colonial Administration and as copied by many Nigerian planners, has failed as it frequently did also in the West, to convincingly seek self sufficiency and a balanced community in new towns. Earlier Nigerian new towns failed to tackle such sensitive issues inherent in traditional Nigerian society as pluralism and inequality, and Abuja has not shown a better appreciation of these needs.

19.4 The case of Abuja therefore illustrates that added to the exceptional planning problems of any new capital city, the Nigerian institutional framework contributes very greatly to the complexity of risks and uncertainty underlying Abuja's planning and implementation. The complex nature of the problems of Abuja made the adoption of a single theoretical explanation impossible. Therefore, three groups of hypotheses have been tested in the thesis based on empirical observations. The hypothetical perspective of uncertainties underlying institutional planning has taken, as its central elements, first, the various institutional factors including imperfect knowledge of the future economic, political and social environment which can render planning decisions fruitless; second, lack of experience and inadequate knowledge of existing laws, institutions and resources; third, lack of qualified managers which tends to lead to poor managerial output.

19.5 The thesis has therefore attempted to deal with the case of Abuja as an institutional problem, in which even if uncertainties are recognised they are not

anticipated in the sense of being acted upon. The discussion of individual and group behaviours and search strategies has implied that the problem is, to a degree, institutional and managerial. To this extent, therefore, it is within the power of the Capital Development Authority and the Federal Government to better control the destiny of Abuja. The thesis accordingly moved from an explanation of hereditary patterns of tribal organization and custom and of modern Nigerian experiences in urban development, to then define the assumptions underlying the Capital and Capital Territory plans which were liable to uncertainty and, finally, to consider which uncertainties are external and effectively uncontrollable - such as the world price of oil - and which can be reduced by changes of local policy and management - as in recognising the need for new methods of financing development and for acceptance of initially lower standards of housing and public services.

19.6 The thesis accordingly suggests Abuja's case to show that uncertainty in major urban projects can be anticipated in many respects and, therefore, that strategic managerial and policy decisions can potentially reduce the damaging consequences of specific future possible events, whose occurrence is possible but not certain. Abuja is reacting in the 1980s in the aftermath of events which ten years before could have been predicted as amongst the possibilities for the following decade. The experience of earlier capital city projects could have indicated the risks which - in some combination or another - are now confronting the implementation of Abuja projects. There was, therefore, ample experience from other countries at the time of Abuja's initial planning which could have been creatively employed.

19.7 Uncertainty within Abuja is, therefore, considerably a problem of adequate awareness, speed and inadequate financial and institutional resources with many parallels where developing or newly industrialising countries aspire to instant Western standards and characteristics, but are without a comparable inheritance of resources of finance, administrative skill, legislation or cultural sympathy. The case of European or North American design, materials and standards translated to the Third World Countries' housing and the people are persuaded to accept them as a better solution than what exist locally, regardless of climatic conditions, economic resources or enduring cultural traits, is well known, where imitation of Western lifestyles by the educated and prosperous elite leads to the adoption of standards unsuitable for the climate and unaffordable by the vast majority of the country.

19.8 In essence the thesis has taken this established issue of transferability in housing into the larger field of town planning, in which Abuja represents an acute case of problem. The problem starts with master plans prepared by Western planners, whose implementation is by Nigerians. Even with Western experts to implement them, they would not operate outside the established system of Nigeria. Some Nigerians wished a capital city to match the standards of new urbanization in Western countries, while others would see such standards as alien to the existing situations elsewhere in the country. The plans, of course, do not inevitably imply Western housing standards or Western standards of social facilities, but the assumption of the Nigerian decision-makers, administrators and their foreign hired planners and architects, is that these are what the Federal Capital deserves. Yet it is not conceivable that the rate of growth nor the political purpose of the Capital can be achieved at

standards which may be affordable for a new town in the Paris Basin or at Milton Keynes, but not at Abuja. Nigeria's economic position will not allow this now, nor with any conceivable improvement in oil revenues could it be achieved this century. There are four substantial impediments. First, the human factor which makes it difficult to meaningfully translate the expenditure to what is on the ground. Secondly, other calls for resources make it improbable that the Federal Government can afford it. Thirdly, urbanization is proceeding rapidly in Nigeria, but in conjunction with a worsening of urban conditions in many cities. It is not credible that dwellers in the shanties of Enugu, Lagos, Port Harcourt and in Nigeria's other cities would definitely accept such a discrepancy in standards, contrasting new urbanization in Abuja and that enjoyed by the majority of the growing urban population of the country. Fourthly, from the studies of the IPA and Doxiadis Associates plans, it is evident that the rate of growth and size planned for Abuja are achievable only with large manufacturing and service sectors in which the majority employed or self-employed will have incomes substantially below those of unemployed or low-income households in East Kilbride, Redditch, Northampton or Cergy-Pontoise.

19.9 Similar problems have been experienced in other countries with major urban projects, but pluralism has notably compounded these problems at Abuja. It might be said that financial, employment and housing problems and other difficulties consequent on speed of urbanization at the national scale can be accommodated either by putting more money into the projects, diversifying the economy, reducing size targets or extending the target date, but the consequences of pluralism remain the

principal problem of Abuja because of its status in national political life. The expectation of the politicians and IPA and Doxiadis Associates consultant planners was to use the physical plans of Abuja and the FCT to enhance national unity, but this was an objective with a high risk of failure just as the regionalisation policies, regional political parties, the civil war failed, and even the "Zoning Policy" of the National Party of Nigeria rocked the foundation of the party before the Presidential election of 1983 because of its tribal interpretation, without a progressive resolution of the uncertainties created by pluralism. Pluralism is practised in the national assembly, in employment and in bestowing favours in Nigeria. Therefore, pluralism remains the principal problem underlying uncertainty of Abuja which must be adapted or perhaps modified if the project is to meet the prior expectation of enhancing national unity.

19.10 When it is loosely said in much current criticism that Nigeria cannot afford Abuja, we must carefully examine the real meaning of this phrase. It must be recognised that the amount of urbanization envisaged in the Abuja plans is too ambitious to contemplate for a single area within the remaining part of the century, but when related to the whole country it is only a small part of all urbanization which will occur in Nigeria during the same period, regardless of economic conditions and the resources available to service that urbanization. There is no question of Nigeria not being able to 'afford' that urbanization; it will occur, and the only doubts surround the standards to which it will be built. What Abuja cannot afford, however, is to achieve standards of housing and public services as have been envisaged hitherto. What is more affordable is development to lesser standards which are closer to those of the rest of

urbanising Nigeria. The choice is between low growth in Abuja and probable consequential failure of its symbolic role as Federal Capital and pacifier of tribal tensions, and an acceptance of standards which may be upgraded over a long period, but, initially, must be lower than hitherto reflected by choice of architects and assumptions of both government and the FCDA. By a decision of this familiar issue for developing countries, one of the largest of Abuja's underlying uncertainties can be considerably resolved.

19.11 Given the latter option, the recommendations of the thesis for improving the situation at Abuja have been grouped into three. First, the group of "immediate actions" falling between 1983 and 1990. This group of recommendations consists of Federal Government interventions in the creation of jobs at Abuja and the FCT, involving the introduction of Nigerian social clubs into housing programmes, the reduction of housing standards to enable more but cheaper houses than formerly proposed to be built, the attraction of private investment from traditional and modern institutions through the sale of financial bonds and shares, the optimisation of land rents in the NFCC, an increasing check on frauds through regular auditing of the Abuja accounts, and the reorganisation of the FCDA and FCTA to improve efficiency in management. Second, the group of recommendations which is considered as for the "short - long term horizon", and which should be initiated along with those recommendations categorised as "immediate", but whose fruition would be expected between 1990 and 2000. Actions in this category include giving first consideration to Abuja in the direction of light industrial investments; using urban management techniques to limit the number of new towns in the FCT; encouraging the creation of social organizations on a national basis at Abuja; creating a

non-tribal chieftancy institution for Abuja; encouraging private savings which can aid development (such as pension funds, etc.) and adopting a new financial management method, whereby all financing for Federal Government projects is by advances to be repaid with interest by the 'receiver' agency. The final group of recommendations is the 'long term horizon' category, which can be decided upon as policy instruments. They include diversifying training and education - which will help in voluntary population redistribution - and eliminating the sector centre in the Capital City structure.

19.12 The relevance of the thesis to cases other than Abuja lies in at least three directions. First, Abuja is the largest single urban project in the National Plan for Nigerian economic development. Even if its growth were to recover to the planned rate, however, it would contribute only a fraction of Nigerian urbanization in the remainder of the 20th century. The case therefore highlights the need to recognise how limited still is the post-colonial experience of Nigerian administrators and planners, now taking responsibility for an unprecedented scale of new city development and of major urban projects, facing a wide gap between the development procedures implicit in Western plans for Abuja and traditional procedures still prevalent in Nigerian urbanization even in Lagos. This gap must be understood - by Nigerians above all - if they are to cope with projects such as a new capital city, which is an exceptional undertaking by the standards of what has been achieved in Western cases like Brasilia, or the British or French new towns. Although it is not a unique case, as can be seen by what South Korea is attempting, yet in South Korea and in other cases in newly industrialising countries, the economic and cultural environment is more congenial to rapid development than that of Nigeria.

19.13 Secondly, there are lessons from Abuja's case to add to those from earlier new capitals to transfer to other new countries. The wave of escape from former colonial dependence in the last 40 years has proliferated new countries, most continuing to urbanise and many without the relatively high sophistication of administration which Nigeria enjoys.

19.14 Thirdly, the issue of uncertainty and risk has been as irresolutely faced in much of Western planning as it has been in Abuja. Within neither theory in planning nor theory of planning is there significant explanation of the nature of the issue, nor are there more than a few cases in which practice has attempted to control uncertainty for potential future advantage. Alternative rates of discounted benefit represents the customary limit of recognition of the issue within cost-benefit analysis. In structure planning in Britain, the response in the face of economic uncertainty has been to shorten the horizon of demographic and employment forecasts, thereby controlling the problem by burying it. What the thesis has attempted to show is that uncertainties can be itemised and examined, so that their size and potential impacts can be anticipated and planning policies adjusted to better meet an overriding strategy. Furthermore, the thesis has identified the Bayesian approach as a possible technique to assist in planning for uncertainties. However, the Bayesian approach has not just strengths but also weaknesses, and future research into its application in assessing uncertainties of capital cities should especially consider problems in calibrating information and in determining successes and failures of past experience.

19.15 Finally, however, Abuja is a case which is widely reflected elsewhere and, therefore, has as much relevance outside as inside the newly industrialising and developing countries.

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APPENDIX 9-A

PUBLIC LANDS ACQUISITION (MISCELLANEOUS PROVISIONS) DECREE 1976

Decree No. 33

[See section 23 (2)]

Commence-
ment.

THE FEDERAL MILITARY GOVERNMENT hereby decrees
as follows:-

PART I

GENERAL

1.—(1) Compensation payable in respect of land compulsorily acquired under the Public Lands Acquisition Act, the State Lands Act, or any other enactment or law permitting the acquisition of land compulsorily for the public purposes of the Federation or of a State shall be assessed and computed in accordance with the provisions of this Decree, notwithstanding anything to the contrary in the Constitution of the Federation or in any other enactment or law or rule of law.

Compensa-
tion to be
paid for land
compulsorily
acquired.
Cap. 167.
Cap. 45.

(2) Without prejudice to subsection (1) of this section, where before the commencement of this Decree any land has been compulsorily acquired by the Government or notice for the acquisition of any land has been given in accordance with the provisions of the Public Lands Acquisition Act, or any other applicable law and compensation in respect of such acquisition has not been paid, the compensation payable shall be determined in accordance with the provisions of this Decree, notwithstanding anything to the contrary in the Constitution of the Federation or in any other enactment or law or rule of law.

2.—(1) For the purposes of section 1 of this Decree the whole area of the Federation is hereby divided into zones as set out in the first column of Schedule 1 to this Decree and the maximum compensation payable in respect of land in each zone (excluding compensation payable in respect of the building or structure thereon) shall be as respectively specified in the second column of that Schedule.

Division of
Federation
into zones
and
maximum
compensa-
tion payable
for land in
each zone.

(2) The Commissioner may, with the approval of the Federal Executive Council, by order published in the Gazette amend Schedule 1 to this Decree either to vary the areas comprised in each zone or to vary the amount of compensation prescribed in respect thereof, or otherwise howsoever.

3. Any claim in respect to compensation payable by virtue of the Public Lands Acquisition Act or the State Lands Act or any other enactment or law shall be determined in accordance with the

Claims and
disputes.

provisions of this Decree, and any dispute arising from such claim shall be referable by any party to the dispute for adjudication by a lands tribunal established under section 12 below.

PART II

COMPUTATION OF COMPENSATION

Principles
for compu-
tation of
compensa-
tion.

4.—(1) In the computation of compensation payable under this Decree account shall be taken of whether the land is a developed land or an undeveloped land and such compensation shall be computed on the principles set out in this section, but in no case shall the amount of compensation payable in respect of land (excluding compensation in respect of the building or structure thereon) exceed the maximum amount prescribed in Schedule I for the zone in which the land is situated.

(2) Where the land is an undeveloped land compensation payable shall be limited to the actual cost of the land together with interest at the bank rate calculated from the date of the purchase of the land up to the date of the notice to acquire the land, subject to a maximum of ten years, or the existing use value of the land whichever is the greater:

Provided that where the actual cost of the land is not determinable or where the owner acquired the land other than by purchase, compensation payable shall be limited to the existing use value of the land.

(3) Where in respect of land to which subsection (2) of this section relates there is in existence a development or building plan approved by the appropriate town planning authority the compensation payable shall also include such reasonable sum as may be determined by the appropriate officer as reimbursement for expenses incurred subsequent to the purchase of the land being expenses in the nature of survey fees, architect's fees and fees payable for the approval of the plan by the appropriate town planning authority.

(4) Where the land is a developed land compensation—

(a) in respect of the land, shall be assessed on the same principles as in subsection (2) of this section; and

(b) in respect of the building or structure on the land, shall be limited to the current replacement cost of the building or structure.

(5) In any other case, compensation payable shall be limited to such amount as may be determined to be reasonable by the appropriate officer or the lands tribunal, having regard to the general principles set out in this section.

(6) In this section—

“actual cost of land” means the actual price paid for the land by the owner as stated in the instrument transferring the land or any document in evidence of the payment of the purchase price and includes incidental expenses in the nature of survey fees, legal fees, registration fees and stamp duty charges:

APPENDICES

"existing use value" means the value assigned to the land or structure thereon and determined in accordance with any current prescribed method of assessment acting on the assumption that no further development is to take place in the future and, for the avoidance of doubt, does not include the potential value of the land or structure.

Residential areas: option to accept resettlement.

5.—(1) In cases where any estate or interest in any area which has been mainly developed for residential purposes is acquired compulsorily under any scheme for the development of the area for the public purposes of the Federation or of a State, the Government may at its discretion offer, and the owner of any estate or interest may accept, in lieu of compensation payable in accordance with the provisions of this Decree, resettlement in any place or area other than the area acquired by way of a reasonable alternative accommodation (if appropriate in the circumstances).

(2) Where the value of any alternative accommodation as determined by the appropriate officer or the lands tribunal is higher than the compensation payable under the foregoing provisions of this Decree, the parties concerned may by agreement require that the excess in value in relation to the acquired property shall be treated as a loan which the owner concerned shall refund or repay to the Government in the prescribed manner.

(3) Where an owner accepts resettlement pursuant to subsection (2) of this section his right to compensation shall be deemed to have been satisfied and no further compensation shall be payable to such owner.

6. Where an owner of an estate or interest in land compulsorily acquired is required to yield up possession of his estate or interest in land prior to the payment of compensation or provision of alternative accommodation, as the case may be, interest at the bank rate shall be payable on the value of the estate or interest acquired (as determined pursuant to this Decree) for the period between the date of the acquisition and the payment of compensation or the provision of alternative accommodation.

Interest on delayed compensation.

In determining the period for which interest is payable under this section the appropriate officer shall not take account of any period of delay responsibility for which he, in the exercise of his duties as officer, is assignable to the owner of the land.

PART III

COMPENSATION FOR STATE LAND

7. Compensation payable under section 24 of the State Lands Act (hereafter in this Part referred to as "the relevant Act") shall be assessed and computed in accordance with the provisions of this Part.

Compensation payable for acquired State lands, etc. Cap. 45.

Computation of compensation under the State Lands Act.

8. In computing compensation payable under this Part account shall be taken of any estate or interest in respect of the land resumed for the purposes of the relevant Act and any improvement thereon, so however that any compensation payable shall be, as respects—

(a) land resumed, for an amount equal to the rent paid by the lessee during the year in which the land was resumed;

(b) building, installation or improvement thereon, for the amount of the actual cost of the building, installation or improvement, that is to say, such cost as may be assessed on the basis of the current method of assessment as prescribed and determined by the appropriate officer less any depreciation, together with interest at the bank rate during the year the land was resumed, and in respect of any improvement in the nature of reclamation works, being such cost thereof as may be substantiated by documentary evidence and proof to the satisfaction of the appropriate officer;

(c) crops on the land apart from any building, installation or improvement thereon, for an amount equal to the value as prescribed and determined by the appropriate officer.

Computation where land resumed, etc. forms part of a larger area.

9.—(1) Where the land resumed under the relevant Act forms part of a larger area leased or sold, the compensation payable shall be computed as in section 8 (a) above less a proportionate amount calculated in relation to that part of the area not resumed but of which the land resumed forms a part, and any interest payable shall be assessed and computed in the like manner.

(2) Where there is any building, installation or improvement or crops on the land resumed under subsection (1) of this section then compensation shall be computed as prescribed hereunder, that is, as respects—

(a) such land, on the basis specified in that subsection;

(b) any building, installation or improvement or crops thereon (or any combination of two or all of those things), on the basis specified in that subsection and in section 8 (b) and (c) above, or so much of those provisions as are applicable,

and any interest, payable under those provisions, shall be computed and determined in like manner.

(3) In this section, "installation" means any mechanical apparatus set up or put in position for use, plant or materials set up in or on land or other equipment, but excludes any fixture in or on any building.

Reference of dispute as to compensation.

10. Where there arises any dispute as to the amount of compensation calculated in accordance with the provisions of section 8 above, such dispute shall be referred to a lands tribunal.

Revocation of existing offer, etc. concerning resumed State lands.

11. Any offer for compensation or acceptance thereof, or any agreement for the purposes of payment of compensation in respect of State lands resumed under the provisions of the relevant Act

APPENDICES

or the Public Lands Acquisition Act made or given, or, as the case may be, entered into, before 3rd August 1968, and in respect of which compensation has not been paid, shall be deemed to have lapsed as from that date.

PART IV

ESTABLISHMENT, CONSTITUTION AND POWERS
OF LANDS TRIBUNALS

12.—(1) Notwithstanding anything to the contrary in the Constitution or any other enactment or law, there shall be one or more tribunals which shall be styled "lands tribunal" in every state of the Federation.

Establishment of lands tribunals.

(2) A lands tribunal shall consist of a Judge of the High Court of a State or of the Federal Revenue Court who shall be assisted by two assessors, each of whom shall possess qualifications approved for appointment to the public service of the Federation or of a State, as the case may be, as estate surveyor or land officer and shall have been so qualified for not less than 5 years, in the determination of any question relating to compensation payable by or under this Decree.

(3) The judge and the assessors shall be appointed by the Head of the Federal Military Government acting after consultation—

(a) in the case of a judge of the High Court of a State, with the Military Governor of the State; and

(b) in the case of an assessor, with the Military Governor of the State in whose area the land in question is situated and with such other person or body as the Head of the Federal Military Government may think fit, and the period of appointment shall be as may be specified in the respective instrument of appointment; and whilst engaged in the functions of the tribunal under this Decree an assessor

shall not himself engage or be partner of any person who engages, in private practice or business.

(4) Any assessor appointed pursuant to subsection (3) above shall not enter upon the duties of his office unless he has taken and subscribed such oath as may be prescribed for the due execution of his office under this Decree.

(5) The assessors appointed under this Decree shall be paid out of moneys provided by the Federal Executive Council such salaries or remuneration as it may in its discretion determine.

(6) Any lands tribunal established under this section may act notwithstanding the absence of an assessor, and the proceedings of the tribunal shall not be vitiated by reason of any such absence.

13. Notwithstanding anything to the contrary in any law a lands tribunal shall to the exclusion of any other court have power to hear and determine—

Jurisdiction to hear and determine questions

relating to compulsorily acquired land.

(a) any question relating to or concerning the ownership whether beneficial or otherwise, of any land to be compulsorily acquired by the Government for the public purposes of the Federation or of a State; and

(b) any question relating to or concerning the amount of compensation payable in respect of such acquisition and persons entitled to such compensation.

Lands tribunal to have the same powers as the High Court of a State.

14.—(1) A lands tribunal shall be a superior court of record and shall, in respect of matters on which jurisdiction is conferred on it under this Decree, have all the powers of the High Court of a State in its original jurisdiction.

(2) Subject to this Decree, the provisions of any law of a State including the Constitution, regarding the powers, practice and procedure of a High Court shall be applicable in relation to a lands tribunal established for a State as if the lands tribunal were duly established by and expressly mentioned in those laws.

Lands tribunal not to grant injunction, etc. in certain cases.

15. Whenever a notice of intention to acquire land has been duly given by the Commissioner pursuant to section 5 of the Public Lands Acquisition Act or by the appropriate State Commissioner under any applicable law no lands tribunal shall, in respect of the land to which the notice relates, have power to grant to a person any injunction or make any order of mandamus or prohibition if the effect of the injunction or order of mandamus or prohibition would be to prevent (to any extent whatsoever) the Commissioner or the State Commissioner or any person authorised by either of them from entering upon the land for any purpose connected with the proposed acquisition and to carry out work on the land.

Appeals.

16.—(1) An appeal shall lie from the decision of any lands tribunal as if such decision were the decision of the High Court of a State.

(2) A right of appeal from the decision of a lands tribunal—
(a) shall be exercisable at the instance of any party to the proceeding or of any person having an interest in the subject-matter thereof; and

(b) shall be exercised in accordance with the laws and rules of court for the time being in force regulating the powers, practice and procedure for appeals from the High Court of a State to the court to which such appeal may, as prescribed, lie.

PART V

MISCELLANEOUS PROVISIONS

Supplemental applicable principles.

17.—(1) Subject to the provisions of section 4 and Part III above, in computing compensation payable for any land or any estate or interest therein a lands tribunal shall take account of the following principles, that is to say—

APPENDICES

(a) no allowance shall be made on account of the acquisition being compulsory;

(b) where part only of land, estate or interest belonging to any person is acquired, no account shall be taken of the excess value of the residue by reason of the proximity of any improvements or walls made or constructed or to be made or constructed by the Government.

18.—(1) As from the commencement of this Decree and notwithstanding anything to the contrary in any law, the High Court of a State or any other court having original jurisdiction in land matters shall not have jurisdiction to hear or determine—

Exclusion of jurisdiction of High Court of a State

(a) any question relating to or connected with the ownership, whether beneficial or otherwise, of any land to be compulsorily acquired by the Government for the public purposes of the Federation or of a State and

(b) any question relating to or concerning any such land including the amount of compensation payable in respect of such acquisition and the persons entitled to such compensation, and no action whatsoever shall be brought in any such court in respect of any such question, and if such action is pending in any such court or on appeal in any other court the action shall abate:

Provided that where before the commencement of this Decree—

(i) compensation had already been paid by the Government to any person or into the registry of the High Court of a State or any other court; and

(ii) action in respect of such land is not connected with the adequacy of the amount of compensation so paid.

then such proceedings may be continued and disposed of by the court having jurisdiction in the matter either at first instance or on appeal, as if this Decree had not been made.

(2) For the purposes of this section, "action" means any civil proceedings commenced by writ or in such other manner as may be prescribed by rules of court, but does not include a criminal proceeding.

(3) The reference in section 13 and in this section to land to be compulsorily acquired by the Government is a reference to any land in respect of which a notice of intention to acquire the land has been given by or on behalf of the Commissioner pursuant to section 5 of the Public Lands Acquisition Act or on behalf of the appropriate Commissioner under any applicable law.

19.—(1) The Public Lands Acquisition Act and the State Lands Act and any equivalent law of a State shall have effect subject to this Decree and the provisions of those Acts or law shall, without prejudice to the generality of the foregoing—

(a) in the case of the Public Lands Acquisition Act and the State Lands Act, have effect subject to the amendments respectively set out in Parts A and B of Schedule 2 to this Decree ; and

Consequential amendments, etc. Cap. 167. Cap. 45.

(b) in the case of any equivalent State law, have effect subject to such modifications, amendments or omissions as would bring such law into line with the general intendment of this Decree, so however that nothing in this paragraph shall be construed as precluding the Military Governor of a State from effecting such textual and other amendments in that law as would bring it into line with the general intendment of this Decree.

1968 No. 38.

(2) The State Lands (Compensation) Decree 1968 is hereby repealed.

Vesting of
compulsorily
acquired
land.

20. On the expiration of six weeks from the date of the notice of intention to acquire land under section 5 of the Public Lands Acquisition Act or under the appropriate provision of the equivalent State law title to the land in fee simple shall vest in the Head of the Federal Military Government in trust for the Federal Military Government, or as the case may be, in the Military Governor of the State in trust for the Government of the State, free from all adverse or competing rights, titles or interests whatsoever:

Provided that nothing in this section shall affect the right of the owner of the land to compensation as provided under this Decree.

Regulations.

21.—(1) The Commissioner may make all such regulations as in his opinion are necessary or expedient for giving full effect to the provisions of this Decree and for the due administration thereof.

(2) Without limiting the generality of the provisions of subsection (1) above, regulations may be made for all or any of the following purposes, that is to say—

(a) for prescribing the method by which the existing use value of land and the current replacement cost of a building or structure shall be determined on the general application of the principles set out under this Decree; and

(b) for prescribing anything in this Decree that is required to be prescribed.

APPENDIX 10 A: Standard Rents - Rent Control and Recovery of Premises Edict No. 3, 1977, Owerri - Nigeria.

- (i) A Tribunal shall have jurisdiction, on application made to it by a landlord, or a tenant or any interested person, to determine in respect of any accommodation let before, on or after the commencement of this Edict, the standard rent payable in respect of such accommodation in accordance with the provision of this Edict.
- (ii) Every order of a tribunal fixing the standard rent of any accommodation shall be signed by the Chairman and be issued under the seal of such tribunal.
- (iii) The standard rent fixed by the tribunal shall supersede the agreed rent between the landlord and the tenant and any order made by the tribunal shall bind all persons including the landlord, the tenant or mortgagee as such of the building where the accommodation is situated.
- (iv) As from the commencement of this Edict, it shall be unlawful for anyone in consideration of the grant, continuance, surrender or giving up a tenancy of any accommodation to require or receive the payment of any loan or premium in respect of the same, and any such payment made in respect of any accommodation to a landlord by a tenant shall be recoverable by the tenant and may, without prejudice to any other method of recovery, be deducted from any rent payable by him to the landlord, at any time.

APPENDIX 10A: (Contd.)

- (v) For the avoidance of doubt, the provisions of this Edict shall not render unlawful or invalid any agreement whereby a bona fide contractor invests in the development of any property to which this Edict applies, and in consideration of such investment, takes a lease of the property for any period of time at a rent lower than the standard rent.
- (vi) A landlord may demand and receive payment of standard rent in advance for a period not exceeding three months from individual tenants, twelve months from commercial or institutional tenants.
- (vii) Demanding or receiving or offering advance rent in excess of the provisions of subsection (6) of this section shall be an offence.
- (viii) Where before the commencement of this Edict an agreed rent has been paid to a landlord, in excess of that provided in subsection (6) of this section, such rent shall not be recoverable by a tenant.

APPENDIX 10B: Responsibility of landlords -
Rent Control and Recovery of Premises
Edict No. 3 of 1977.

1. First Schedule - Zones

Zone A	Zone B	Zone C	Zone D
Aba	Okigwe	Afikpo	Other Towns and Villages not included in Zones A, B and C.
Owerri	Orlu	Arochukwu	
Umuahia		Nkwere	
		Oguta	
		Ohafia	

2. Rent Books and Receipts

- (i) As from the commencement of this Edict all landlords of premises in the zones listed in the First Schedule to this Edict shall issue prescribed Rent Books in addition to receipts to their tenants.
- (ii) The Rent Books shall be in the custody of the tenants and necessary entries shall be made by the landlord therein when rents are paid by the tenants.
- (iii) Any landlord who fails to issue the prescribed Rent Book to his tenant shall be guilty of an offence against this Edict and shall be liable on summary conviction to a fine of fifty naira or to imprisonment for one month or to both such fine and imprisonment.

APPENDIX 14A : Methodology for the assessment of uncertainties and risk.

(i) The information presented in this appendix is hypothetical aimed at illustrating the method of assessing probabilities of success of plans in uncertainty.

(ii) Objectives/assumptions to be assessed:

- (a) enhance the national unity.
- (b) promote functional efficiency through an urban layout plan.
- (c) divert 100,000 immigrants from other parts of the country.
- (d) provide housing to satisfy various needs.
- (e) create 25,000 manufacturing jobs.

(iii) Techniques:

- (a) The Bayes' approach can be employed to handle both continuous variables such as estimating the probability of achieving the goal of national unity and a discretised variable such as the realization of the immigration assumption. This would imply the application of Bayes' Rule for conditional probabilities to discrete variables. Thus $\text{Prob. } [A_i|B_j] \propto \text{Prob. } [B_j|A_i] \times \text{Prob. } [A_i]$. The denominator on the right hand side of the formula serves only one function: it normalizes the expression so that the conditional probabilities will sum to 1.0. Conditional information means bits of information attributes of the case, for instance, what are the various ages of the population that would be expected to migrate?
- (b) Difficulties encountered doing the multiplication by hand makes it necessary to adopt the beta distribution.

APPENDIX 14A (Contd.)

The beta distribution applies to continuous random variables restricted to ranges between zero and unity. The beta has just two parameters which can be chosen to produce a wide range of shapes, so that many useful prior distributions can be expressed as beta distributions. The important part of the beta formula is $p^S (1-p)^F$. These are also used in the binominal likelihood function. It means that the prior distribution can be conceived as if it had arisen from a given set of empirical successes (S) and failures (F) (as it may well have).

(c) Suppose we have aimed at 0.8 as our prior probability of success. We might therefore have chosen a beta prior with $S_{prior} = 8$, $F_{prior} = 2$. We arrived at these figures by subtracting 0.8 from 1.0 (i.e. $(1-p)$) which leaves us with 0.2. Reading the binomial distribution under 0.2 (Appendix 14-B) would provide us with the two values for S_{prior} and F_{prior} .

(d) Obtain sample data from experimental trials and group them under successes and failures (S_{data} and F_{data}). We can now compute the beta posterior with the two groups of variables; thus: S_{prior} , F_{prior}
 S_{data} , F_{data} .

(iv) Computation:

This involves estimating the probabilities of objectives and assumptions being achieved.

(a) Enhance the national unity. In attempts to enhance national unity in the past, for example in Nigeria, the Federal Government had adopted the following measures: regionalization, creation of states, fighting against secession, adopting the posture of reconciliation,

APPENDIX 14A (Contd.)

rehabilitation and resettlement after the civil war (The 3Rs), building federal colleges for all Nigerian youths, and establishing national political parties. The experimental trials show that regionalization, state creation and fighting secession failed to achieve success but the use of 3Rs, federal colleges and national political parties are likely to achieve success (as shown from the field survey by the Author in 1983). Therefore, the sample data showed 3 successes and 3 failures.

Solution: $S_{\text{prior}} = 8 + F_{\text{prior}} = 2$

$S_{\text{data}} = 3 + F_{\text{data}} = 3$

Posterior $S(S+F) = 11 (11+5)$.

The probability of using the building of a new capital city to achieve the national unity

≥ 8 successes = P is $11/16$ or 0.69.

(b) Promote functional efficiency through an urban layout plan. Suppose in this example we felt confident a priori that the chance of success was about 0.6. This also means that we had chosen a beta prior with $S_{\text{prior}} = 6$, $F_{\text{prior}} = 4$. The experimental trials showed that attempts in the use of urban structure plans to induce functional efficiency in Suleja, along the Suleja/Abuja Road, along the Abuja Airport Expressway, in the ADCP, the N.W. District and in Gwagwalada new town showed persistent traffic problems in Suleja, Gwagwalada and along the Suleja/Abuja Road, but great improvement in the other areas. Therefore, what is the probability of achieving functional efficiency in the New City in the year 2000?

APPENDIX 14A (Contd.)

$$\begin{aligned} \text{Solution: } \quad \text{Sprior} &= 6 + \text{Fprior } 4 \\ \quad \quad \quad \text{Sdata} &= 3 + \text{Fdata } 3 \\ &= 9 + \quad \quad 7 \end{aligned}$$

$$\text{Posterior } S(S+F) = 9 (9+7).$$

The probability of achieving functional efficiency by the new city in the year 2000 ≥ 6 successes

$$\begin{aligned} &= P \text{ is } 9/16 \\ &= 0.56. \end{aligned}$$

(c) Divert 100,000 immigrants from other parts of the country. (This forms an example of a discretised variable, therefore, the Bayes' conditional probability approach will be appropriate).

Emigrants expected are 100,000.

Ages 0 - 16	17 - 44	45 - 64	65+
32,080	38,940	20,410	8570

The figures could be obtained from the national census or the planners' forecast. Given the Bayes Rule, what is the chance that a randomly selected individual of between the ages 0 and 16; and ages n and n will emigrate?

$$\text{Prob.}[0-16|32080] = \frac{32080}{100,000} = 0.30 (9,624)$$

$$\text{Prob.}[17-44|38,940] = \frac{38,940}{100,000} = 0.39 (15,187)$$

$$\text{Prob.}[45-64|20410] = \frac{20410}{100,000} = 0.20 (4082)$$

$$\text{Prob.}[65+] = 1 - 0.30 - 0.39 - 0.20 = 0.11 (943)$$

$$\text{Probable number of immigrants (Total)} = 29,836.$$

APPENDIX 14A (Contd.)

(d) Provide housing to satisfy various needs.

Total number of houses required is 1000.

Housing Types:	Three-Bedroom	Two-Bedroom	One-Bedroom
	300	200	500

What is the chance that a randomly selected housing type of three-bedroom, two-bedroom or one-bedroom would be constructed?

$$\text{Prob. [3-bedroom|300]} = \frac{300}{1000} = 0.3 \text{ (90)}$$

$$\text{Prob. [2-bedroom|200]} = \frac{200}{1000} = 0.2 \text{ (40)}$$

$$\text{Prob. [1-bedroom|500]} = \frac{500}{1000} = 0.5 \text{ (250)}$$

Probable number of houses completed 380.

(e) Create 25,000 manufacturing jobs.

Industrial Types by the number of workers employed:

Classes	Average No. of Employees	Prob. No. of Industries
0 - 10	5	200
11 - 50	35	57
51 - 100	75	113
101 - 500	350	21
501 - 1000	750	5
Over 1000	1010	<u>5</u>
Total No. of industries		<u>401</u>

APPENDIX 14-A. (Contd.)

		Prob. Jobs
Prob. [0 - 10 200]	$\frac{200}{401}$	0.50 (500)
Prob. [11 - 50 57]	$\frac{57}{401}$	0.14 (279)
Prob. [51 - 100 113]	$\frac{113}{401}$	0.28 (2373)
Prob. [101 - 500 21]	$\frac{21}{401}$	0.05 (368)
Prob. [501 - 1000 5]	$\frac{5}{401}$	0.01 (38)
Prob. [1000+]	$= 1 - 0.50 - 0.14 - 0.28 - 0.05 - 0.01 = 0.02$	(91)
Total probable jobs		3649.

Summary: Probabilities of achieving plans' objectives and assumptions:

Objectives/Assumptions	Continuous Variables (P)	Discrete Variables (P)
(a) Enhance the national unity	0.69	
(b) Promote functional efficiency through an urban layout plan	0.56	
(c) Divert 100,000 immigrants from other parts of the country to the new city		29,836
(d) Provide 1000 dwelling units to satisfy various needs		380
(e) Create 25,000 manufacturing jobs		3,649

Appendix 4B Table of the Binomial Distribution

Binomial distribution $\binom{N}{n} P^n (1 - P)^{N-n}$

N	n	P									
		0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40	0.45	0.50
1	0	0.9500	0.9000	0.8500	0.8000	0.7500	0.7000	0.6500	0.6000	0.5500	0.5000
	1	0.0500	0.1000	0.1500	0.2000	0.2500	0.3000	0.3500	0.4000	0.4500	0.5000
2	0	0.9025	0.8100	0.7225	0.6400	0.5625	0.4900	0.4225	0.3600	0.3025	0.2500
	1	0.0950	0.1800	0.2550	0.3200	0.3750	0.4200	0.4550	0.4800	0.4950	0.5000
	2	0.0025	0.0100	0.0225	0.0400	0.0625	0.0900	0.1225	0.1600	0.2025	0.2500
3	0	0.8574	0.7290	0.6141	0.5120	0.4219	0.3430	0.2746	0.2160	0.1664	0.1250
	1	0.1354	0.2430	0.3251	0.3840	0.4219	0.4410	0.4436	0.4320	0.4084	0.3750
	2	0.0071	0.0270	0.0574	0.0960	0.1406	0.1890	0.2389	0.2880	0.3341	0.3750
	3	0.0001	0.0010	0.0034	0.0080	0.0156	0.0270	0.0429	0.0640	0.0911	0.1250
4	0	0.8145	0.6561	0.5220	0.4096	0.3164	0.2401	0.1785	0.1296	0.0915	0.0625
	1	0.1715	0.2916	0.3685	0.4096	0.4219	0.4116	0.3845	0.3456	0.2995	0.2500
	2	0.0135	0.0486	0.0975	0.1536	0.2109	0.2646	0.3105	0.3456	0.3675	0.3750
	3	0.0005	0.0036	0.0115	0.0256	0.0469	0.0756	0.1115	0.1536	0.2005	0.2500
	4	0.0000	0.0001	0.0005	0.0016	0.0039	0.0081	0.0150	0.0256	0.0410	0.0625
5	0	0.7738	0.5905	0.4437	0.3277	0.2373	0.1681	0.1160	0.0778	0.0503	0.0312
	1	0.2036	0.3280	0.3915	0.4096	0.3955	0.3602	0.3124	0.2592	0.2059	0.1562
	2	0.0214	0.0729	0.1382	0.2048	0.2637	0.3087	0.3364	0.3456	0.3369	0.3125
	3	0.0011	0.0081	0.0244	0.0512	0.0879	0.1323	0.1811	0.2304	0.2757	0.3125
	4	0.0000	0.0004	0.0022	0.0064	0.0146	0.0284	0.0488	0.0768	0.1128	0.1562
	5	0.0000	0.0000	0.0001	0.0003	0.0010	0.0024	0.0053	0.0102	0.0185	0.0312
6	0	0.7351	0.5314	0.3771	0.2621	0.1780	0.1176	0.0754	0.0467	0.0277	0.0156
	1	0.2321	0.3543	0.3993	0.3932	0.3560	0.3025	0.2437	0.1866	0.1354	0.0938
	2	0.0305	0.0984	0.1762	0.2458	0.2966	0.3241	0.3280	0.3110	0.2766	0.2344
	3	0.0021	0.0146	0.0415	0.0819	0.1318	0.1852	0.2355	0.2765	0.3032	0.3125
	4	0.0001	0.0012	0.0055	0.0154	0.0330	0.0595	0.0951	0.1382	0.1861	0.2344
	5	0.0000	0.0001	0.0004	0.0015	0.0044	0.0102	0.0205	0.0369	0.0604	0.0938
	6	0.0000	0.0000	0.0000	0.0001	0.0002	0.0007	0.0018	0.0041	0.0083	0.0156

Source: *Handbook of Tables for Probability and Statistics*, 2d ed., W. H. Beyer, ed. (West Palm Beach, Fla.: CRC Press, Inc., 1968). Adapted with permission of the publisher.

Note: Linear interpolations with respect to P will in general be accurate at most to two decimal places. For values of $P \geq 0.50$ use $\binom{N}{n} P^n (1 - P)^{N-n} = \binom{N}{N-n} (1 - P)^n P^{N-n}$. For instance, for $P = 0.55$

$$\binom{5}{3} (0.55)^3 (0.45)^2 = \binom{5}{2} (0.45)^2 (0.55)^3 = 0.3369.$$

Appendix 14B Table: The Binomial Distribution

Binomial distribution $\binom{n}{r} P^r (1 - P)^{n-r}$

N	n	P									
		0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40	0.45	0.50
7	0	0.6983	0.4783	0.3206	0.2097	0.1335	0.0824	0.0490	0.0280	0.0152	0.0078
	1	0.2573	0.3720	0.3960	0.3670	0.3115	0.2471	0.1848	0.1306	0.0872	0.0547
	2	0.0406	0.1240	0.2097	0.2753	0.3115	0.3177	0.2985	0.2613	0.2140	0.1641
	3	0.0036	0.0230	0.0617	0.1147	0.1730	0.2269	0.2679	0.2903	0.2918	0.2734
	4	0.0002	0.0026	0.0109	0.0287	0.0577	0.0972	0.1442	0.1935	0.2388	0.2734
	5	0.0000	0.0002	0.0012	0.0043	0.0115	0.0250	0.0466	0.0774	0.1172	0.1641
	6	0.0000	0.0000	0.0001	0.0004	0.0013	0.0036	0.0084	0.0172	0.0320	0.0547
	7	0.0000	0.0000	0.0000	0.0000	0.0001	0.0002	0.0006	0.0016	0.0037	0.0078
8	0	0.6634	0.4305	0.2725	0.1678	0.1001	0.0576	0.0319	0.0168	0.0084	0.0039
	1	0.2793	0.3826	0.3847	0.3355	0.2670	0.1977	0.1373	0.0896	0.0548	0.0312
	2	0.0515	0.1488	0.2376	0.2936	0.3115	0.2965	0.2587	0.2090	0.1569	0.1094
	3	0.0054	0.0331	0.0839	0.1468	0.2076	0.2541	0.2786	0.2787	0.2568	0.2188
	4	0.0004	0.0046	0.0185	0.0459	0.0865	0.1361	0.1875	0.2322	0.2627	0.2734
	5	0.0000	0.0004	0.0026	0.0092	0.0231	0.0467	0.0808	0.1239	0.1719	0.2188
	6	0.0000	0.0000	0.0002	0.0011	0.0038	0.0100	0.0217	0.0413	0.0703	0.1094
	7	0.0000	0.0000	0.0000	0.0001	0.0004	0.0012	0.0033	0.0079	0.0164	0.0312
8	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0002	0.0007	0.0017	0.0039	
9	0	0.6302	0.3874	0.2316	0.1342	0.0751	0.0404	0.0207	0.0101	0.0046	0.0020
	1	0.2985	0.3874	0.3679	0.3020	0.2253	0.1556	0.1004	0.0605	0.0339	0.0176
	2	0.0629	0.1722	0.2597	0.3020	0.3003	0.2668	0.2162	0.1612	0.1110	0.0703
	3	0.0077	0.0446	0.1069	0.1762	0.2336	0.2668	0.2716	0.2508	0.2119	0.1641
	4	0.0006	0.0074	0.0283	0.0661	0.1168	0.1715	0.2194	0.2508	0.2600	0.2461
	5	0.0000	0.0008	0.0050	0.0165	0.0389	0.0735	0.1181	0.1672	0.2128	0.2461
	6	0.0000	0.0001	0.0006	0.0028	0.0087	0.0210	0.0424	0.0743	0.1160	0.1641
	7	0.0000	0.0000	0.0000	0.0003	0.0012	0.0039	0.0098	0.0212	0.0407	0.0703
	8	0.0000	0.0000	0.0000	0.0000	0.0001	0.0004	0.0013	0.0035	0.0083	0.0176
	9	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0003	0.0008	0.0020
10	0	0.5987	0.3487	0.1969	0.1074	0.0563	0.0282	0.0135	0.0060	0.0025	0.0010
	1	0.3151	0.3874	0.3474	0.2684	0.1877	0.1211	0.0725	0.0403	0.0207	0.0098
	2	0.0746	0.1937	0.2759	0.3020	0.2816	0.2335	0.1757	0.1209	0.0763	0.0439
	3	0.0105	0.0574	0.1298	0.2013	0.2503	0.2668	0.2522	0.2150	0.1665	0.1172
	4	0.0010	0.0112	0.0401	0.0881	0.1460	0.2001	0.2377	0.2508	0.2384	0.2051
	5	0.0001	0.0015	0.0085	0.0264	0.0584	0.1029	0.1536	0.2007	0.2340	0.2461
	6	0.0000	0.0001	0.0012	0.0055	0.0162	0.0368	0.0689	0.1115	0.1596	0.2051
	7	0.0000	0.0000	0.0001	0.0008	0.0031	0.0090	0.0212	0.0425	0.0746	0.1172
	8	0.0000	0.0000	0.0000	0.0001	0.0004	0.0014	0.0043	0.0106	0.0229	0.0439
	9	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0005	0.0016	0.0042	0.0098
10	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0003	0.0010	

APPENDIX 15 A: SUMMARY OF OBJECTIVES AND ASSUMPTIONS AND UNCERTAINTIES

REFERENCE SET	FIELD SET	OBJECTIVES AND ASSUMPTIONS	UNCERTAINTIES
NEW CAPITAL CITY POLICY	POLITICAL OBJECTIVES	i Developing an environment in which the Federal Government can operate efficiently	UE
		(a) An urban layout to channel inputs in the machinery of government.	UE
		(b) Building legislative buildings, departments, hotels, meeting places and providing physical accommodation for an efficient civil service	Risk
		ii Building a New Federal Capital which will enhance national unity	IF*
		(c) Emphasis on co-habitation of all ethnic groups in Abuja	UE, UV
		(d) Land distribution to all persons irrespective of place of origin, class or religion	UE
(e) Equitable representation of all States in the administration	UR, IF		

* IF Uncertainty related to Institutional Framework.

APPENDIX 15 A (Contd.)

<p>FEDERAL CAPITAL TERRITORY/ NFCC</p>	<p>Managerial Objectives</p>	<p>iii Building an effective management structure:</p> <p>(f) Creation of an administrative system to develop and administer the FCT programmes instead of depending on the traditional civil service</p> <p>(g) Co-ordination with Federal and State Ministries and departments</p> <p>(h) Reflecting the federal character in the appointment of staff</p> <p>(i) Creation of a Joint Planning Unit to be responsible for planning problems emerging between the FCT and adjoining States</p>	<p>UE, IF</p> <p>UR, UE</p> <p>IF, UE, UR</p> <p>Risk</p>
<p>FCT/NFCC</p>	<p>Resource Objectives</p>	<p>iv Utilizing both public and private resources:</p> <p>(j) Emphasis on the Federal Government grant and fund allocations</p> <p>(k) Emphasis on private investment by employing incentives</p> <p>(l) Emphasis on recruitment of staff from local and foreign sources</p>	<p>UE</p> <p>UE, UV</p> <p>UE, UV</p>

APPENDIX 15A. (Contd.)

FCT/NFCC	Socio-economic Objectives	<p>v Population distribution:</p> <p>(m) Concentrate population 1.6 million in the Capital by year 2000</p> <p>(n) Disperse 1.8 million population to the rest of the FCT simultaneously</p>	<p>UE</p> <p>UV, UE</p>
FCT	"	<p>vi Promoting rural economy:</p> <p>(p) Promote agriculture, forestry, etc.</p> <p>(q) Limited mineral prospection</p> <p>(r) Selective conservation</p>	<p>UE, UV</p> <p>Risk</p> <p>Risk</p>
FCT/NFCC	"	<p>vii Industrial and employment investment:</p> <p>(s) Discourage heavy industries in the NFCC</p> <p>(t) Encourage widespread diversification of industrial types in the FCT</p>	<p>UV</p> <p>Risk</p>
FCT/NFCC	"	<p>viii Housing:</p> <p>(u) Emphasis on private housing and selective public actions</p> <p>(v) Emphasis on subsidies and housing loans</p>	<p>UE, UR</p> <p>Risk</p>

APPENDIX 15 A. (Contd.)

FCT/NFCC	Socio-economic Objectives	<p>ix Settlement pattern:</p> <p>(w) Creation of a Federal Capital City at Abuja, 27 new satellite towns and 207 rural areas in the FCT in the year 2000 simultaneously</p>	UE
FCT/NFCC	Assumptions	<p>i Population migration:</p> <p>(a) Assume that 1,347,000 immigrants will be diverted from Lagos and other parts of the country</p>	UE, Ego.
FCT/NFCC	Assumptions	<p>ii Employment:</p> <p>(b) Create 43,700 manufacturing jobs in the NFCC and 161,350 manufacturing jobs in the FCT simultaneously</p> <p>(c) Create 169,000 jobs in the primary sector in the FCT in 2000</p>	UE UE
	Assumptions	<p>iii</p> <p>(d) Provide 266,667 dwelling units in the NFCC and 478,200 dwelling units in the FCT in 2000 simultaneously</p>	UE, UV

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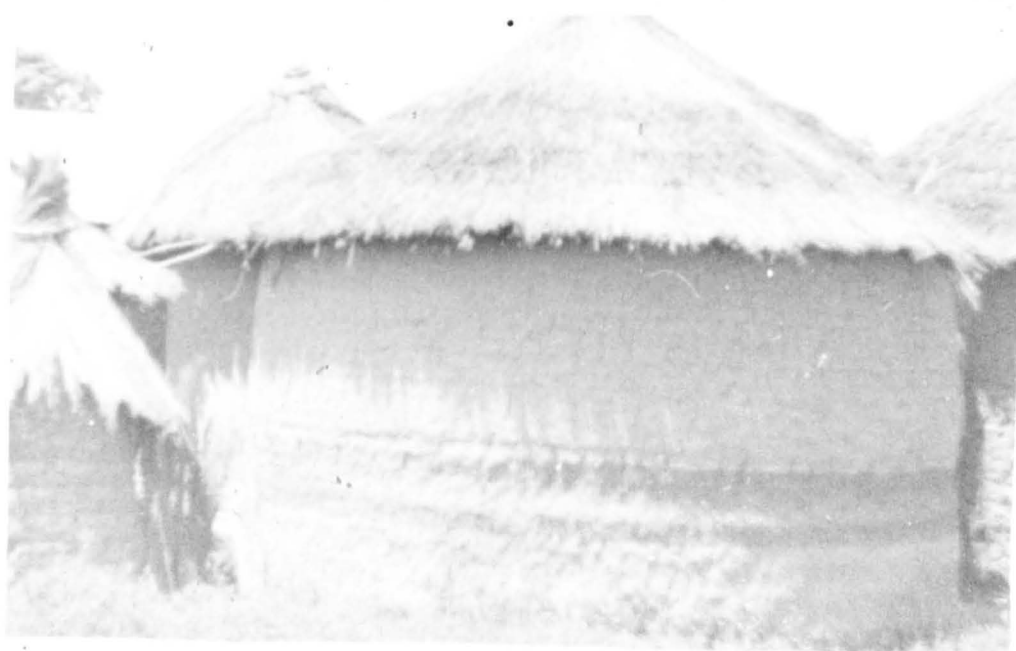
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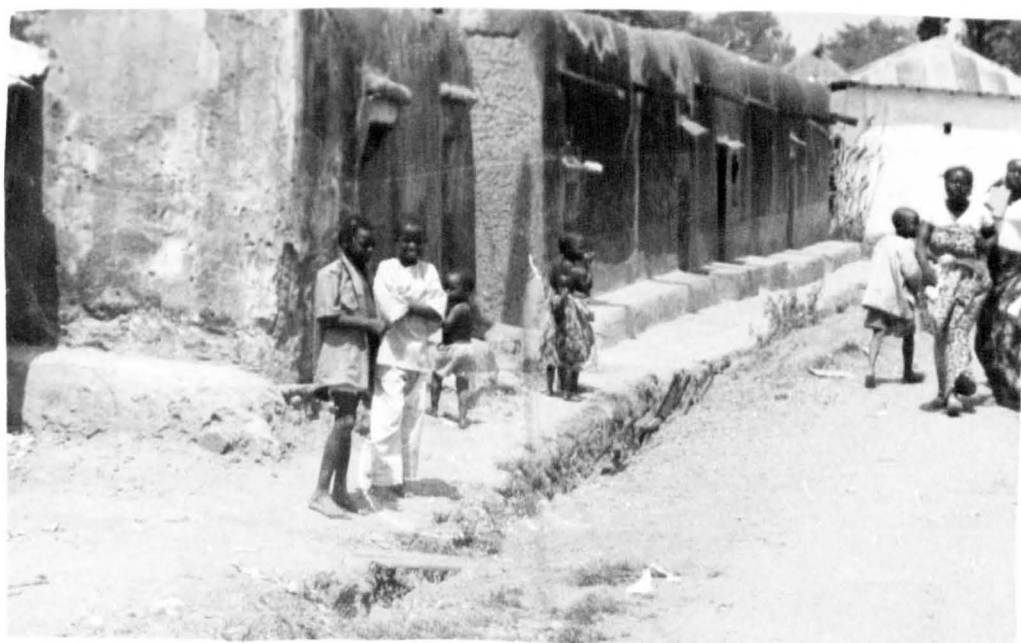
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THE COMPARATIVE PICTORIAL DESCRIPTION OF THE F.C.T.



The Traditional housing type in the F.C.T.



The Traditional housing type in Zaria.



The Traditional housing type in Igboland.



The Gate of the city of Zaria.



The Friday Mosque in Kano.



New Flats in the New Federal Capital City.