CULTIVATING A HEALTHY SOCIAL METABOLISM: A CASE STUDY OF COMMUNITY FORESTRY IN SCOTLAND

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by

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This thesis is the result of the author's original research. It has been composed by the author and has not been previously submitted for examination which has led to the award of a degree.

This study was conducted in accordance with the ethical guidelines and data protection guidelines of the University of Strathclyde. It obtained the approval of an Ethics Committee at the University of Strathclyde.

Signed:

Date:

To my grandfather, João Menotti,

who always encouraged me to study.

In loving memory.

Abstract

Community Woodland Groups (CWGs) have emerged in Scotland as a reparative measure for past socio-environmental losses and as a commitment to a fairer and more sustainable model of forest governance. Today, there are over 200 CWGs in Scotland, but little is known about them and their social and environmental impacts. Furthermore, research in the field of sustainability transition is dominated by a 'reformist' approach and assessment models that fail to challenge the capitalist system and integrate environmental and social problems effectively. This thesis employs an ecosocialist (transformative) paradigm to explore how these community-led groups are organised and to what extent they have contributed to system change. Data was gathered through participant observation and interviews in two case study CWGs, as well as from the official webpages of 128 CWGs and the review of 251 documents from the Community Woodlands Association (CWA). As a result, this thesis offers an empirically and theoretically grounded analysis of Scottish CWGs, providing insight into their organisation and common goals, their power struggles within the national socio-political structure, and both their strengths and weaknesses in terms of challenging the *status quo*. Its main theoretical contribution is an original socio-metabolic assessment model that facilitates the operationalisation of the ecosocialist critique of the capitalist system for empirical research in the field of sustainability and the formulation of strategies and policies for system change. This thesis shows that CWGs have worked to cultivate a socially fair and ecologically sound model of woodland governance on the local level. On a broader scale, however, there is an ongoing tension between serving to absorb the depredatory costs of capitalism and challenging them. This opens new research paths into how community-led organisations might challenge unequal power relations and increasingly seize metabolic processes on their own terms to promote a truly transformative sustainability transition.

Key-words: social metabolism; community management; forestry; fulfilling work; sustainability transition

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CONTENTS

PART II: *Elucidating the research approach*

PART III: *Presenting findings & implications*

Acronyms

BECCS: Bioenergy with Carbon Capture and Storage

CB: community body

CO_2: carbon dioxide

CWA: Community Woodlands Association

CWGs: Community Woodland Groups

FC: Forestry Commission

FCS: Forestry Commission Scotland

GHGs: Greenhouse gases

IPCC: Intergovernmental Panel on Climate Change

NDCs: Nationally Determined Contributions

NETs: Negative Emission Technologies

RQ: Research Question(s)

UN: United Nations

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PART I

– Setting the scene –

CHAPTER I – CONTEMPLATING THE LANDSCAPE (INTRODUCTION)

1.1. Context and summary

Humanity is currently in the middle of a planetary emergency as a direct result of a socioeconomic system that is predatory, unsustainable, and unfair. The name of this system is capitalism. Within the capitalist paradigm, profit-driven production remains central to a way of life in which the development of production is the expansion of destructive forces. That is, under capitalism, nature and labour are undervalued by their subjection to laws of value centred on market interests, and they are recklessly exploited for the profit of the few, which gradually degrades the conditions for human existence as well as that of countless other species. Therefore, humanity stands before a pivotal choice between carrying on business-as-usual, which is expected to result in the extinction of human life, and transitioning to a new way of life that satisfies human needs for all while simultaneously safeguarding the health of our shared home.

In this context, it has now become widely acknowledged that community engagement is essential for promoting a transition to sustainability. Political discourses on the left and right of the political spectrum have embraced community participation as a tactic for addressing socio-environmental problems (Dressler et al., 2010; Büscher and Whande, 2007; Head, 2007). Their approaches to community engagement, however, are very different. So are their views on what a sustainable future looks like and how to achieve it.

On the one hand, the socialist tradition asserts that a worker-community controlled economy would generate a qualitatively distinct mode of production focused on people's and the planet's well-being rather than profit accumulation (Foster, 2022b; Marx and Musto, 2021; Foster and Clark, 2020; Klein, 2020). Therefore, they advocate for a genuine democratisation of the politico-economic system in which the exploitative relations of production – which degrade the original source of all wealth (i.e., nature and labour) – are replaced by an association of free men holding the means of production in common, united by strong values of respect and care for one another and their environment. On the other hand, the community turn in the neoliberal environmental paradigm has been linked to capital *'technical fix'* to environmental degradation, uneven development, and class oppression. This understanding, as will be argued in this thesis, is instructive to develop a deeper analysis of contemporary technocratic approaches to forestry

projects, characterised by state-corporate strategies of transferring to communities the social-environmental costs of capitalism (MacLeod and Emejulu, 2014; Fairhead, Leach, and Scoones, 2012; Fyfe, 2005).

These disparities in perspectives and approaches have significant implications regarding communities' effective power and the roles they play in shaping contemporary strategies for 'sustainability transition'. Previous studies have shown that community involvement can range from tokenism and delegation to genuine empowerment (Arnstein, 1969; Head, 2007; Reid, 2016; Bulkan et al., 2022). Therefore, community's role in and contribution to diverse sustainability transition proposals should not be taken at face value. It is vital to analyse both the robustness of community power in such arrangements and their vision of a sustainable future.

The recent growth in the number of Community Woodland Groups (CWG) in Scotland reflects the country's shift toward greater community engagement. It is expected that CWGs would significantly contribute to the restoration of ecological and sociocultural losses these communities have historically endured, while also shaping a more equitable and sustainable future. However, there has been little research undertaken to date, and knowledge production has been limited to a small number of authors (Lawrence and Ambrose-Oji, 2013; Ambrose-Oji, Lawrence, and Stewart, 2015; Dunn, Ambrose-Oji, and O'Brien, 2021). Thus, further research has been encouraged to provide more evidence, and diversify theoretical and methodological approaches to this subject.

Therefore, the present study contributes to knowledge production about Scottish CWGs by investigating and providing insight into their organisation and common goals, their power struggles within the national socio-political structure, and both their strengths and weaknesses in terms of challenging the *status quo*. In particular, this thesis makes a contribution to a growing ecosocialist body of literature by drawing on the concept of *social metabolism* to develop an original assessment model for thinking about sustainability transition from a transformative perspective.

This thesis begins with a review of the existing literature in order to contextualise this study within political, theoretical, and historical debates, as well as to formulate novel research questions that investigate the hypothetical changes brought about by these communities in the Scottish forestry sector. The thesis then combines primary and secondary data with theory-informed analysis to answer its research questions. As a result, it offers an empirically and theoretically informed account of Scottish CWGs, contributing to a comprehensive understanding of what

characterises them, how they operate and develop their capabilities and political voice, and of their ability to challenge local patterns of exploitative labour and harmful socio-ecological relationships.

1.2. Problem statement

Today, there are over 200 CWGs across Scotland. Yet, their emergence is a relatively recent phenomenon, accompanied by great expectations for benefits and limited research undertaken to date. Previous research has concentrated on the formation of CWGs in Scotland (Crabtree et al., 1994; Ritchie and Haggith, 2012; Lawrence, 2022), their organisation as enterprises (Ambrose-Oji, Lawrence, and Stewart, 2015; Worrell et al., 2018; Lawrence et al., 2020), and their social and environmental outcomes (Dunn, Ambrose-Oji, and O'Brien, 2021; Lawrence and Ambrose-Oji, 2015). Nonetheless, policymakers have encouraged further research on the subject due to the paucity of evidence (Lawrence and Ambrose-Oji, 2013; Ambrose-Oji, Lawrence, and Stewart, 2015), and the small number of authors who have contributed to the existing body of knowledge.

To date, there has been no in-depth research conducted on how CWGs challenge the capitalist mode of production and forest governance. As a result, little is known about the changes they have made, and how they may (or may not) be leading to a more equitable and sustainable model of forest governance in Scotland. Therefore, this thesis brings these issues into focus by exploring how Scottish CWGs function and to what extent they have contributed to a sustainability transition from an ecosocialist (transformative) standpoint. In other words, this thesis is concerned with patterns of genuine community empowerment and the process of transitioning away from capitalist ideals and practices in environmental governance and production.

Misinterpretations of Marx's work have suggested that Marxist theory is dismissive, if not incompatible, with environmental concerns. This has led to a division between 'Western Marxism', which confines Marxism to social and historical reality by isolating it from natural science, and 'dialectical materialism', which affirms the ecological underpinnings of the Marxist critique of the political economy based on Marx's framework of metabolisms (Foster, 2022b). As a result, Marx's concepts of universal metabolism, social metabolism, and metabolic rift have been revived in recent years by ecosocialist scholars, most notably Professor John Bellamy Foster at the University of Oregon, as interpretative tools for analysing the sustainability of society-nature relationships.

A growing body of literature has shed light on how Marx's theoretical framework of metabolisms frames a political reading of the nature-society relationship by placing society within nature without denying it a certain degree of autonomy (Foster, 1999, 2000, 2013a, 2013b, 2016, 2022a, 2022b; Foster and Clark, 2016 and 2020). This autonomy refers to the human capacity for imagination, decision making, and organisation which allow us to create specific ways of living from the historic-material conditions we inherit. The understanding that human relationship to nature is not purely instinctive or mechanistic but rather mediated by a socially constructed layer, means that this relationship (the social metabolism) can be transformed. Hence, this framework is not merely descriptive, but transformative – since it supports the premise that a given social metabolism can be modified. However, empirical research employing Marx's framework of metabolisms remains limited. This is partly due to the absence of assessment models that operationalise Marxist theory for empirical research on the subject of sustainability.

In summary, this thesis focuses on two problems: the need to create an assessment model that operationalises the ecosocialist theoretical framework for empirical research and action, and the need to better understand how and to what extent Scottish CWGs have contributed to a transformative sustainability transition.

1.3. Aim and Scope

This thesis aims to contribute to furthering the understanding of what Scottish CWGs are, how they function, and the extent to which they have promoted a transition away from capitalist ideals and practices and toward a healthy social metabolism. Drawing from the existing literature, this study proposes that Scotland's recent trend toward community participation in forestry can have very different meanings and outcomes depending on three key aspects: (i) their definition of *community* and participatory mechanisms; (ii) the effective *power* CWGs have within the socio-political structure in which they exist; and (iii) the *ends* pursued and *means* employed by CWGs in their forestry projects. Hence, this study posed the following research questions (RQ):

(RQ1) Who is the 'community' in Scottish CWGs, and how is this community organised for forest management? This question seeks to elucidate how the 'community' in Scottish CWGs is defined (who are the community members), how members participate in woodland management (including decision-making and implementation), what organisational form CWGs assume (how

they operate), and what they aim to achieve as an organisation (their goals, underlying values, and beneficiaries). It strives to contribute to a more comprehensive understanding of what commonly defines Scottish CWGs, how they are organised and managed, as well as their main purposes and those who benefit from them. This question seeks to shed light on whether these CWGs are, in fact, worker-community controlled organisations, and whether their goals differ from the capitalist exclusionist and accumulative imperative by focusing on the well-being of people and the environment. This is essential when assessing whether a transition in decision-making authority and values is occurring, which could transform the dominant unhealthy social metabolism.

(RQ2) *What factors/actors have contributed to the emergence and empowerment of CWGs in Scotland?* This question aims to understand how and to what extent woodland management authority has been transferred to local communities. While exploring the evolution of community-led woodland management in Scotland, this question focuses on gaining a deeper understanding of how CWGs have strengthened their capabilities and authority to re-shape their social metabolism on their own terms, while promoting system change in the forestry sector at a higher-level. Addressing this question also helps to clarify the extent to which the recent shift toward encouraging community-led forestry in Scotland constitutes a (genuine) transfer or sharing of power.

(RQ3) *How can a model of assessment better inform about the overall health of a given social metabolism and the possibilities for enhancing it?* This question aims to build on ecosocialist theory and fieldwork experience to produce a novel sustainability assessment model. Then, it strives to test this model by (retrospectively) applying it to analyse the social metabolism shaped by forestry projects in two case study CWGs. In other words, the objective of this question is to develop a comprehensive and implementable assessment model that operationalises the ecosocialist (transformative) theoretical framework for empirical research in sustainability studies and for the formulation of strategies and policies for system change.

1.4. Research approach

This study approaches its research questions from a transformative theoretical perspective. This means that the theoretical framework acknowledges contemporary power struggles and structural inequalities, seeking to generate knowledge that may empower the communities that are the subject

of this study. In other words, the main purpose of this study is to produce knowledge that may assist Scottish CWGs in transforming their realities by challenging harmful structures, goals, and practices, and promoting social justice and sustainability.

This study collected data from three key sources: (i) two case study CWGs, through a period of participant observation and interviews; (ii) 128 CWGs' official websites, through web-based target information collection; and (iii) 251 documents from the Community Woodlands Association (CWA), which were analysed on NVivo. The combination of these diverse sources of data and methods of data collection allowed the researcher to look at the subject from many angles, getting a richer, more balanced picture of it (Yin, 2009; Saldaña, 2013; May and Perry, 2022).

This data is used in this thesis to investigate questions concerning the organisation and degree of democratic engagement inside CWGs, as well as power relations pertaining to the empowerment of CWGs in their broader socio-political context. In addition to that, this thesis drew on fieldwork experience and ecosocialist theory to create an original model of sustainability assessment to evaluate progress (or lack thereof) towards a healthy social metabolism. In doing so, it helps to advance a counter narrative to the hegemonic definition of sustainability and its models of assessment and guidance towards a 'sustainability transition'. This assessment model was then applied to analyse the social metabolism shaped by forestry projects in two case study CWGs in Scotland. By doing so, this study contributed to better understand of how CWGs have challenged unhealthy capitalist practices, as well as how they have helped to maintain them.

1.5. Limitations of the study

This study recognises a number of limitations in its research approach. Whenever possible, limitations and unforeseen constraints were mitigated throughout the research process. For instance, a partial re-design of the research questions and methods was conducted due to COVID-19 restrictions. Yet, some constraints were unavoidable due to the time and scope of this study. For example, the focus of this study on soft/discursive data and the exploratory nature of its analysis from a transformative perspective should be taken into consideration. In other words, no physical data from the natural environment was collected or analysed (e.g., soil or water samples). Rather than laboratory analysis, assessments of whether the activities of CWGs are beneficial or detrimental to the environment were based on theoretically educated premises and ethical values

that can inform the forecast of the long-term impacts of their model of woodland management. Further research can expand this analysis with other epistemological approaches and the inclusion of biophysical measurements, contributing to a more comprehensive picture of the environmental outcomes of these community-led forestry projects.

Some of the findings reported in this thesis are based solely on two in-depth case studies and, as a result, are not generalizable to over 200 CWGs throughout Scotland. It is important to point out that the findings presented in Chapter VII are only representative of the case-study communities analysed, i.e., Case Study 1 and Case Study 2. The findings outlined in Chapters V and VI, on the other hand, were based not only on the data gathered from these two case studies but also on comprehensive data gathered from 128 CWGs webpages and 251 CWA's documents. As a result, these findings are more generalisable, yet they should not be assumed to apply to every CWG in Scotland.

Finally, while this study produced a new socio-metabolic assessment model that identified and integrated key indicators to evaluate the overall health of a given social metabolism, its application or testing was only partial. The novel assessment model was applied to understand to what extent and how Scottish CWGs have contributed to shaping a healthy social metabolism. However, this application could only be conducted retrospectively since the model did not exist prior to fieldwork, but rather resulted from fieldwork experience as well as theory analysis.

While this first testing has confirmed the model's usefulness in critically assessing progress (or lack thereof) towards a transformative sustainability transition agenda, this assessment model still needs to be properly applied to empirical research. To better evaluate its usefulness for empirical research and in shaping transition strategies, this assessment model would have to guide the design of future research prior to data collection – so that the evidence from observations, interview questions, and potential biophysical samples could be fed into the assessment model. Further opportunities for the wider testing and sharing of the model and its outcomes in community and academic forums, publications, and follow-up grant applications are being explored.

1.6. Key contributions

The main contribution of this thesis to the body of knowledge is a socio-metabolic assessment model that facilitates the operationalisation of the ecosocialist critique of capitalism for empirical

research in the field of sustainability, and for the formulation of strategies and policies for system change (see Chapter VII). Thus, it advances an alternative approach and narrative to the hegemonic definition of sustainability and its models of assessment and guidance towards a sustainability transition. In contrast to prevalent sustainability assessment models, the model proposed in this thesis challenges both the intent and the conduct of the political economy of capitalism. It also defines indicators and their interplay in fostering progress toward a healthy social metabolism, hence facilitating their observation and analysis in empirical research. Furthermore, this model moves beyond a purely biophysical understanding of the concept of *social metabolism*, focused on material and energetic flows between society and nature. Instead, it promotes a more nuanced understanding of social metabolism as the organisation of a way of living through the appropriation of nature and labour. This understanding enables us to examine not only the interaction between society and nature but also the internal dynamics that comprise a given social metabolism such as the laws of value, labour relations, and distribution of benefits. In this way, this interpretation of the concept of social metabolism supports a better integration of social and ecological concerns.

In addition to developing this novel assessment model, this study tested and evaluated its usefulness by applying it (although only retrospectively) to investigate whether and how two case study CWGs have fostered a transition towards a healthier social metabolism in the Scottish forestry sector. As a result, this thesis was able to shed light on areas where its case study CWGs challenged unhealthy capitalist practices, as well as areas where they reproduced or helped to maintain them. These findings have demonstrated that this assessment model serves as a tool to advance theoretical discussions and to guide or shape actions for transitioning into a mode of production that can meet human needs for all without jeopardising the well-being of the sources of all wealth (i.e., nature and labour).

This thesis has also made a number of other theoretical and empirical contributions to knowledge by: producing an ecohistorical materialist account of Scottish woodlands and combining available data to create illustrative graphs of their changing cover and composition (Chapter II); providing additional evidence and furthering understanding on the characteristics and organisation of Scottish CWGs (Chapter V); and offering a Marxist analysis of power relations pertaining to the empowerment of these CWGs in their broader socio-political context (Chapter VI). These contributions are detailed in the paragraphs that follow.

In Chapter II, this study investigated historical patterns of land use and ownership, connecting the loss of woodland cover, biodiversity, and cultural diversity to the dominance of certain groups of people and the expansion of their way of life. As a result, it produced an *ecohistorical materialist account* of Scottish woodlands and combined existing data to produce *novel graphs* that show: an overview of the historical decline of Scotland's woodland cover (see Figure 2.4.1.); the recent increase of Scotland's woodland cover from 1919 to 2019 (see Figure 2.4.2. (a)); and visual information on Scottish woodlands' current species composition and age profile (see Figures 2.4.2. (b) and (c)).

In Chapter V, this study challenged pre-conceived ideas of 'community' and 'community participation', adding to the existing body of literature (Head, 2007; Shaw, 2008; Blackshaw, 2010) and, more specifically, to the existing knowledge on what defines Scottish CWGs and how they are run (Lawrence et al., 2009; Ambrose-Oji, Lawrence, and Stewart, 2015; Lawrence, 2022). Findings showed that Scottish CWGs are primarily characterised as 'community' for serving the common interests of their community. The data collected in this study enabled it to identify the six most prevalent goals pursued by CWGs in Scotland (see Figure 5.5.) and examine their relevance to the well-being of the community and ecosystems. However, contrary to romanticised notions of community, data showed that Scottish CWGs primarily function through representation rather than direct community participation. Furthermore, findings also showed that the most common organisational form adopted by them is that of a *charitable company*. Nevertheless, although they operate as businesses, Scottish CWGs differ from the capitalist business model in that they are purpose-driven, and their purpose tends to be centred on the common good.

In Chapter VI, this study situates Scottish CWGs in their broader socio-political context. It showed how they are shaped by outside forces at the same time they reshape the legal and political structures in which they operate. It contributed to furthering knowledge on the evolution of community-led woodland management in Scotland, providing a fuller understanding of the extent to which the recent shift toward community-led forestry signifies a (genuine) share of power. Findings showed that CWGs' capacity to follow their own goals – creating an alternative model of forest governance (a distinct social metabolism) – depends on their access to the *means of production* (i.e., natural/material, legal, and financial resources) as well as on the strength of their *labour power* (i.e., knowledge and skills). Therefore, it concludes that in order to strengthen their capacity to promote system change, CWGs should continue to invest in their collective organisation

as a movement that advocates for greater access to *means of production* and *labour power* development.

1.7. Thesis structure

This thesis was organised in three parts and consists of a total of eight chapters that are subdivided into sections and subsections – totalling 85 thousand words, excluding the appendices and the list of references[1]. The titles of this thesis and of its chapters, as well as the introductory paragraphs (and quotes) in most of its chapters, are playful metaphors to the process of nurturing something into life. In the case of a PhD thesis: nurturing new knowledge. In order to clarify the organisation and distribution of the content of this thesis, the content of and the word count for each chapter, as well as the purpose of each part division, are summarised below.

Part I *– Setting the scene*

The first part of this thesis focuses on giving an overview of the study conducted, contextualising it within current debates.

CHAPTER I – CONTEMPLATING THE LANDSCAPE (INTRODUCTION) gives an overview of the thesis, including its aims, methodology, structure, and contributions to knowledge (word count: ≈ 4 thousand).

CHAPTER II – PREPARING THE SOIL (LITERATURE REVIEW) situates this study within political, theoretical, and historical debates. It provides an ecohistorical materialist account of the events that led to the emergence of CWGs in Scotland and prepares this study for investigating their role in current sustainability transition efforts (word count: ≈ 25 thousand).

Part II *– Elucidating the research approach*

The second part of this thesis defines the preferred research paradigm, presents the research questions, and describes its methodological approach to inquiry and analytical procedures.

[1] The format and word count of this thesis conforms to the University of Strathclyde's *Code of Practice for Postgraduate Research Students*, which was approved in 2021 and is currently in effect.

CHAPTER III – CHOOSING THE SEEDS (THEORETICAL FRAMEWORK) establishes the philosophical ground of this research by presenting its transformative research paradigm with which the ecosocialist theoretical foundation is articulated. In addition, the chapter presents the research questions that are addressed in this study and shows how they contribute to the existing body of knowledge (word count: ≈ 6.5 thousand).

CHAPTER IV – THE ART OF GARDENING (METHODOLOGY) presents the methodology employed in this study, including the types of data that were gathered, how they were organised and analysed, its methodological limitations, ethical considerations, and why this methodological approach is considered appropriate to address the research questions posed in this study (word count: ≈ 9 thousand).

Part III *– Presenting findings & implications*

The final part of this thesis simultaneously presents and discusses the research findings, drawing empirically based and theoretically informed conclusions that address the research questions posed in this study. In addition to that, it considers the implications and limitations of the present study, as well as seeds for future research.

CHAPTER V – TAKING ROOTS (RQ1 FINDINGS) addresses the question '*Who is the "community" in Scottish CWGs, and how are they organised for forest management?'* by elucidating how the 'community' in Scottish CWGs is defined, who is and who is not considered a member, how members participate in woodland management, what organisational form they assume, what they aim to achieve, and who they benefit as an organisation (word count: ≈ 10 thousand).

CHAPTER VI – SPROUTING UP (RQ2 FINDINGS) addresses the question '*What factors/actors have contributed to the emergence and empowerment of CWGs in Scotland?'* by exploring power relations and decision-making dynamics among CWGs, the Scottish Government, and the Community Woodlands Association (CWA), with a focus on better understanding how CWGs

have developed the power to re-shape their own social metabolism and to influence system change regarding socio-environmental issues at a broader level (word count: ≈ 9.5 thousand).

CHAPTER VII – BEARING FRUITS (RQ3 FINDINGS) addresses the question '*How can a model of assessment better inform about the overall health of a given social metabolism and the possibilities for enhancing it?'* by building on ecosocialist theory and fieldwork experience in two case studies to produce an original assessment model which helps to operationalise empirical research and can guide the development of policies and strategies for system change (word count: ≈ 16 thousand).

CHAPTER VIII – ENJOYING THE FRUITS, STORING THE SEEDS (CONCLUSION) summarises the findings and contributions of this study, considers its impact both inside and outside academia, outlines the limitations of this study, and identify seeds for future research (word count: ≈ 5 thousand).

CHAPTER II – PREPARING THE SOIL (LITERATURE REVIEW)

2.1. Introduction

A good crofter knows that before planting, one must prepare the soil. To this end, knowing the soil in which one treads – its history, its properties, and its potential – is fundamental. Like a crofter, a good researcher needs to know the field before starting to dig into it. Hence, this chapter aims to do exactly that, prepare the ground for the investigative digging ahead. This preparation consists of a literature review exploring how policies, values, and history have shaped the Scottish forestry sector and how they might be influencing its present and future.

The purpose of this literature review chapter is to contextualise this study within contemporary debates about the need to transition to a just and sustainable mode of production and about the role community-led initiatives may play in such a transition. It accomplishes this by delving into political, theoretical, and historical debates about the current planetary emergency while also outlining the expectations and limitations of community-led initiatives in effecting change.

This chapter is organised into four sections. Section 2.2. contrasts conflicting interpretations of the current planetary emergency and respective sustainability transition strategies, as well as the distinct role community engagement has in competing political agendas. Section 2.3. draws on Marxist theory to show how the capitalist system undermines and exploits both nature and labour to the benefit of the bourgeoisie. It shows how capitalist ideals and practises shape unjust social relations and unsustainable socio-ecological relations, thus placing capitalism at the root of the current planetary emergency. Section 2.4. investigates historical patterns of land use and ownership, native forest transformation, and the evolution of laws, policies, and practises related to land and forest use and ownership in Scotland. By doing so, it outlines how Scottish forests became so depleted and reveals the origins of community-led forestry as a restorative plan. Finally, section 2.5. synthesises the discussions conducted in this chapter.

2.2. Communities at the edge of the great rift

This section of the literature review situates this study within debates about how to define and tackle the current planetary emergency. It contrasts different framings of the issue and their proposed solutions, as well as the role they attribute to communities. On the one hand, the transformative approach sees the planetary emergency as a tangle of ecological and societal issues arising from capitalism, demanding radical systemic change. On the other hand, status quo and reformist approaches rely on market-based strategies and technological innovation to address specific symptoms of a failing system while preventing the transformation of its structure. These disparities in ideological orientations and approaches to sustainability transition result in profoundly varied forms of community engagement. Hence, this section of the literature review aims to highlight the distinctions between them, positioning this study within political disputes and laying the groundwork for a critical data analysis.

2.2.1. Competing political narratives and sustainability transition strategies[2]

The state of the world is today broadly reckoned as a *planetary emergency*; 'few people doubt that the climate is changing and that human activity is the major cause.' (Gilbertson and Reyes, 2009, p.8). Massive climate protests have shown that the public is aware of the gravity of the situation and is frustrated with the lack of meaningful action. In only a decade, social mobilisation has risen from tens of thousands of demonstrators in Copenhagen during the COP15 in 2009 (Zee and Batty, 2009) to nearly six million people participating in global demonstrations in September 2019 (Taylor and Watts, 2019). These protests have been organised mostly by the world's youth and inspired by scientists and activists such as Greta Thunberg, Vandana Shiva, and Raoni Metuktire.

[2] The author of this thesis used portions of this section in a paper she co-authored with her supervisors, see *Vian, J. E., Garvey, B., & Tuohy, P. G. (2023). Towards a synthesized critique of forest-based 'carbon-fix'strategies. Climate Resilience and Sustainability, 2(1), e248.*

While most people agree that change is necessary, there are several obstacles and disputes when it comes to stepping on the brake and steering the wheel of progress. Debates over how to approach the current socio-environmental problem begin with the definition of the problem itself. Understandings of the problem and proposals to tackle it range from ‘status quo’, through ‘reform’, to ‘transformation’ (Hopwood, Mellor, and O'Brien, 2005; see Fig. 2.2.1.). According to the 'status quo' perspective, market strategies and technological innovation can address any problem; hence, no socioeconomic reforms are necessary. The ‘reform’ vision, on the other hand, argues that substantial adjustments are necessary to transition to a sustainable way of production and consumption. Lastly, the 'transformation' approach considers the capitalist socio-economic system to be the root of the problem and calls for a radical systemic change.

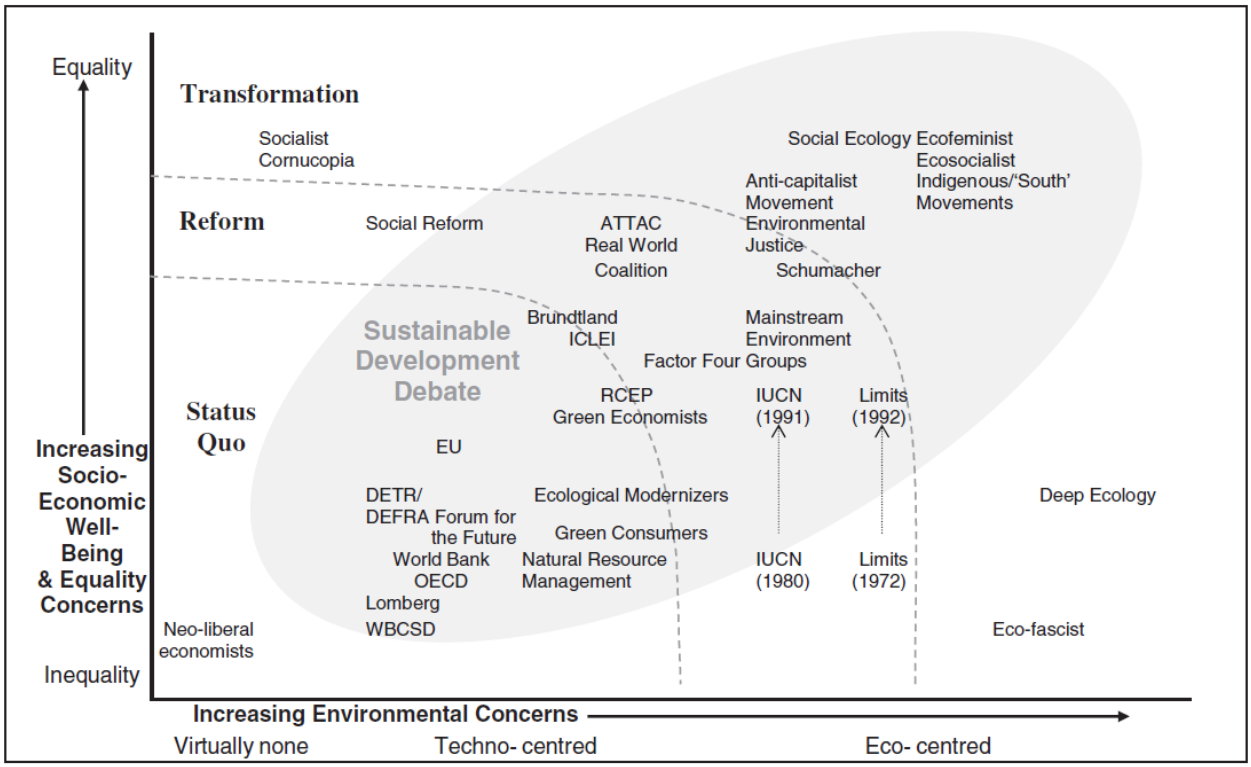

Figure 2.2.1. Mapping of views on sustainable development. Source: Hopwood, Mellor, and O'Brien, 2005, p.41.

On the streets among climate protesters, the transformative discourse stands out with signs and chants demanding not only to keep fossil fuels in the ground but also to save endangered species, end plastic pollution, ban agrochemicals, respect the rights of indigenous peoples, and protect climate refugees, among other claims. Even though each of these problems has its own distinctive properties, transformative perspectives view the planetary emergency as a matrix of related

ecological and societal problems resulting from an unhealthy socioeconomic system (Fraser, 2021; Magdoff and Foster, 2011; Foster and Clark, 2020; Brand and Wissen, 2013; Clark and York, 2005a; Leichenko and O'Brien, 2019; Klein, 2020; Chatterton and Pusey, 2020).

On the corridors of power, however, the dominant narrative fluctuates between 'status quo' and ‘reform’. Therefore, the interconnectedness of the different manifestations of the planetary emergency is overlooked. Instead, a fragmented view that handles each problem separately is preferred. By doing so, the dominant narrative diverges from the notion that there is a systemic failure to promote the understanding that there are failing pieces that need fixing. For instance, by blaming global warming and focusing on atmospheric Greenhouse Gases (GHGs[3]), this approach dismisses any structural flaws of the capitalist system. Instead, it fosters the notion that specific malfunctions must be fixed in order to maintain the system.

> [F]ocus on GHGs dissociates their physical properties from the surrounding social relations producing them and giving them (particular) meaning(s). Though widely recognized as politically important, such issues are often treated as analytically separable from, if not in fact irrelevant to, the technical question of “stabiliz[ing]”…greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system (Demeritt, 2001, p.313).

From a transformative perspective, the emphasis placed on atmospheric GHGs serves as a smokescreen that obscures the structural flaws at the heart of the current planetary emergency. This is not to diminish the necessity and urgency of lowering atmospheric GHGs. Global warming poses grave dangers to Earth's ecosystems and the vast majority of life forms they support. It is not only a major problem in itself (due to rising temperatures and deteriorating air quality), but it also unleashes a chain of negative impacts on the ecological, social, and economic spheres[4]. However,

[3] Greenhouse gases (GHGs) are those gases that trap solar heat into the atmosphere, maintaining the Earth’s temperature at an adequate level for most living creatures; in high concentrations, they disrupt the planet’s ecosystems. Global warming (also referred to as "climate change") is caused by the heavy anthropogenic emission of GHGs, particularly the emission of carbon dioxide (CO2), methane (CH4), and nitrous oxide (N2O) (Blau, 2017; EPA, 2017; Olivier and Peters, 2018; Clark and York, 2005). It is also worth mentioning that CO2 absorbs less heat per molecule than CH4 and N2O, but it is more abundant and stays in the atmosphere much longer. Thus, all GHGs are generally expressed in CO2 equivalent (CO2eq) as a common measure of global warming potential (GWP) (Lindsey, 2020; Reilly et al., 1999).

[4] Ecological harms that unfold from global warming include ocean acidification, intensification of wildfires, and species extinctions (NASA, 2019; WWF, 2019; Greenpeace, 2019; Hickel, 2020). Threats to human life and well-being include food and water scarcity, sanitary and healthy issues, population displacement, and natural disasters (Dietzel,

from a transformative perspective, global warming is only one of the symptoms of a much deeper socio-ecological problem. Hence, a sustainability transition strategy that does not address the systemic roots of these problems can only be a partial, superficial, and temporary fix (Stephens and Markusson, 2018).

Disputes over how to better address socio-ecological issues can be confusing and overwhelming. Nonetheless, it is important to understand that political decisions are not made on the basis of scientific evidence and logical reasoning. Under the current global political structure, decision-making is heavily influenced by the interests of powerful corporations that subordinate social and environmental concerns to the imperative of economic growth. As a result, they often rely on technological and market-based strategies. That is:

> the response of the dominant interests has always been that technology, supplemented by market magic and population control, can solve all problems, allowing for unending capital accumulation and economic growth without undue ecological effects by means of an absolute decoupling of growth from environmental throughput. (Foster and Clark, 2020, p.245)

This section delves into the most prominent technological and market-based responses to the present climate crisis in order to understand their proposals and their shortcomings. In doing so, it aims to situate this study within contemporary theoretical and political disputes.

Following on from the idea that nature is degraded because it is considered a 'free gift', the economic valuation of natural resources and services has emerged as a neoliberal solution to environmental degradation (Foster and Clark, 2020). Underlying this neoliberal trend is the assumption that once nature is adequately priced and brought into international commodity circuits, it will be used and managed more efficiently. In other words, if nature had a monetary worth, it would be valued and safeguarded (Igoe, 2017). McAfee has referred to this idea as 'selling nature to save it', whereby nature is expected 'to earn its own right to survive in a world market economy' (1999, p.134).

In this way, nature's very existence depends on market demand and financialization (Sullivan, 2013b; McAfee, 1999). Nature needs to earn its own right to survive by producing new commodities (e.g., natural resources, ecosystem services, touristic attraction, carbon credits).

2019; WHO, 2003; Hickel, 2020). Finally, extraordinary economic costs are anticipated due to resource scarcity, infrastructural damage, and emergency responses (Irwin, 2019; Zenghelis, 2006).

However, this monetary valuation is unable to capture at once all usages and services existing in a commodity or lost during the process of its production. For example, 'the price of a tree log captures only its value on the timber market but omits the value of its fruits (as food to humans and/or other animals) and that of its leaves (as organs to fix carbon), which were sacrificed when the tree was logged'. (Deb, 2014, p.152). The *value-pluralism* theory postulates that these multiple values are not reducible one to another (O'Neill, 1993). Yet, *value monism* based on monetary valuation 'breaks nature into measurable components while financial mechanisms protect only the parts capable of generating income' (Finley-Brook, 2017, p.76). Thus, nature itself is increasingly shaped by market interests – which means that only the most economically valuable kinds of nature (i.e., ecosystems and species) are likely to survive.

> To put a price on a forest, so that its work/energy is no longer "unpaid", that is, to commodify it – to turn it into so many millions of board feet of standing timber – is no more likely to save the forest than the lack of price. This is because the real issue is not the so-called tragedy of the commons, but the system of capital accumulation. Songbirds are dying off because their habitats are being destroyed by the historical expansion of the system – not simply because they are considered "valueless" from the standpoint of the market. (…) All of this suggests that sustainable human development requires not the incorporation of nature into the system of value, but the abolition of commodity value itself. (Foster and Clark, 2020, p. 236).

The carbon market is the most prominent example of this pricing of environmental services. This market strategy was established by the Kyoto Protocol, adopted at COP-3 in 1997 (UN, 1998; Blau, 2017). The protocol translated GHGs into carbon credits, defined emissions reduction targets, and created a carbon market (in which carbon credits became a tradable commodity). The purchase of carbon credits was supposed to be a 'flexibility mechanism', a last resort to cope with failed efforts to cut emissions. However, the purchase of low-cost carbon credits from economically poorer regions became more cost effective than reducing GHG emissions. For this reason, Bigger (2017, p.120) argues that 'what started as a market with potential to make "polluters pay" (…) was transformed to a market where "pay to pollute" became the operating principle'.

Despite participating countries' compliance with their emissions reduction targets (Shishlov, Morel, & Bellassen, 2016), the Kyoto Protocol failed on its mission as global emissions continued to rise (Falkner, 2016; Neslen, 2015). There are many reasons for the failure of the carbon market strategy, including (a) lack of scientific knowledge and technological constraints in

quantifying the amount of carbon stored or emitted as a result of a given activity (Gilbertson and Reyes, 2009; Murray and Dey, 2009; McAfee, 2017); (b) irregular credit certification and double counting schemes (Elgin, 2021; Böhm and Dabhi, 2009); (c) production relocations (from Annex I to non-Annex I countries) giving the false impression of emission reductions whereas consumption-based emission increases in Annex I parties surpassed their territorial-based reductions in production (Peters et al., 2011; Klein, 2020); and (d) technical issues relating to leakage, permanence, and additionality of carbon credit generating initiatives (Bayrak and Marafa, 2016; McAfee, 2017; Gilbertson and Reyes, 2009). Nevertheless, even if the carbon market functioned as intended, it would not play a significant role in reducing emissions (Pearse and Böhm, 2014). As MacAfee (2017, p.49) points out, 'no matter how efficient carbon offset markets might become, the buying and selling of offset credits, in itself, does nothing to stop the production and release of GHGs'. In other words, the carbon market strategy fails because:

> Carbon trading is aimed at the wrong target. It is not directed at reorganizing industrial societies' energy, transport and housing systems – starting today – so that they don't need coal, oil and gas. It is not contributing to the de-industrialization of agriculture or the protection of forests through the recognition of local and Indigenous Peoples' tenure rights or food sovereignty. Instead, it is organised around keeping the wheels on the fossil fuel industry for as long as possible. (Gilbertson and Reyes, 2009, p.15).

Critics highlight that the carbon market 'constitute a more business-friendly alternative than direct regulatory control of the drivers of greenhouse gas emissions' (Aguilar-Støen, 2017, p.93). Carbon markets are highly lucrative for consulting firms that charge fees for identifying or establishing credit-earning projects and guiding them through the process of qualifying for offsets under official regimes (McAfee, 2017, p.43). As a result, carbon markets generate huge profits and little GHGs reduction (Davies, 2007; Gilbertson and Reyes, 2009). The claim that carbon markets can reduce emissions is not based on the trading aspect but relies on a low and constantly lowered limit on the legally permitted amounts of GHG emissions.

> This would require a strong international regime adhered to by all or nearly all industrialized and industrializing countries: a global cap-and-trade system. As in any such system, only the level of cap would count toward the achievement of net global emissions reductions. Without a low and constantly lowered cap, international carbon trading entails no more than the shifting of activities that produce, absorb, or avert GHG emissions from place to place around the world. There is no global government to enforce this, and

> efforts to achieve even modest, quantitative, and legally binding targets for country-by-country compliance seem even less achievable today than they were two decades ago when the Kyoto Protocol was hammered out. (McAfee, 2017, p.49).

The second commitment period of the Kyoto Protocol (2012–2020) has expired, and its successor has already been agreed. The Paris Agreement was adopted at COP-21 in 2015, following a series of discussions aimed at producing a more effective successor to the Kyoto Protocol. (Falkner, 2016). In diplomatic terms, the Paris Agreement has been considered a huge success because it is 'the first climate agreement ever that all countries in the world agreed to, with the promise that they would sign and ratify it' (Blau, 2017, p.23). However, the Paris Agreement was written in a vague language and is nonbinding by design, that is, 'not every provision of the agreement creates a legal obligation' (Bodansky, 2016, p.142). Allegedly, its legal bindingness had to be lessened to secure broader participation. Therefore, the Paris Agreement relies on a mere 'naming and shaming' process that should take place every five years when all parties submit their reports on their self-set emission reduction targets – so-called 'Nationally Determined Contributions' (NDCs). Failure to comply with self-determined targets 'will not constitute a breach of international law. (…) Even where parties are in breach of treaty provisions, they will not face punitive sanctions as they might in other international agreements such as those of the WTO[5]' (Falkner, 2016, p.1117-1118).

The loose terms of the Paris Agreement are evidence that the 'focus is no longer on the environmentally desirable, but on the politically feasible' (Geden, 2016, p.792). This is not surprising, as environmental agreements have historically been weakened whenever they threatened economic growth. Most governments tend to take a stern view of anything that might diminish their competitive position in trade (Frey, 2019; Klein, 2020). Capitalist governments promptly recognise monetary worth and are willing to abide by several constraints in order to participate in trading agreements, but they are generally unwilling to accept any economic constraints for the socio-ecological common good. In other words, 'while trade has repeatedly been allowed to trump climate, under no circumstances would climate be permitted to trump trade' (Klein, 2015, p.78).

In addition to vague or non-binding commitments and market protectionism, the major climate agreements established to date share an overreliance on technology. Both the Kyoto

[5] World Trade Organization (WTO).

Protocol and the Paris Agreement emphasise the importance of developing and distributing innovative climate change mitigation and adaptation technology. In fact, a commonly held belief is that technological innovation in energy and carbon management will be the primary mechanism to tackle climate change, 'despite well-established recognition of the critical need for social, cultural, and institutional changes in reducing fossil-fuel reliance' (Stephens and Markusson, 2018, p.503).

The belief that there are no limits to technology and that technology alone can and will solve all our problems is what is commonly referred to as techno-optimism (Fox, 1995; Montgomery, 2007). It is the attribution of mythical powers to technology, also known as *technological fetishism* (Harvey, 2003). This over-reliance on technology has received well-founded criticism from many academics for its naive optimism and its neoliberal political inclination (Fox, 1995; Harvey, 2003; Foster, Clark, and York 2010; Barry, 2016; Frey, 2019). Techno-scepticism is not aimed at technology per se, but at the promise of silver-bullet solutions, at specific hight-risk large-scale mega-technologies (such as nuclear power, chemical intensive agriculture, and geoengineering solutions), and at the denial of the need for social, economic and political change. In this regard, Harvey (2003, p.4) contends that there is a need to 'unpack the real role of technology while demystifying ourselves of the habit of endowing it with powers it simply does not and cannot have'. Thus, the next paragraphs seek to clarify two points: technological innovation is not a politics-free zone nor is it independent from socio-economic-environmental interferences.

Every technology is designed to serve a purpose. This purpose is influenced by those owning the means of research development and those with decision-making power over research financing. In this way, technological innovation does not always serve common needs and interests but favours those of dominant politico-economic groups (Meadows, Randers, and Meadows, 2004; Sclove and Kaplan, 2009; Huesemann and Huesemann, 2011; Harvey, 2014; Barry, 2016). For instance, the assimilation of machinery during the Industrial Revolution in Britain worsened working and living conditions for many while increasing the profit of the industrials.

> During the early days of industrialization, the lives of many commoners got nastier, more brutish, and shorter. Material standards and living conditions for the masses in Britain failed to improve before 1840. (…) In major industrial cities like Manchester and Glasgow, life expectancy at birth was some staggering ten years shorter than the national average. The wages that workers took home in industrial cities hardly

> compensated for the dirty and unhealthy conditions in which people lived and worked. Although output expanded, the gains from growth didn't find their way into the pockets of ordinary people. Real wages were stagnant or even falling for some. The only thing workers saw expanding was the number of hours spent in the "dark, satanic mills". The gains of progress overwhelmingly went to industrialists, who saw their rate of profit double. (Frey, 2019, p.8).

The same mills that worsened the lives of the commoners are associated with the beginning of climate change (Malm, 2016; Klein, 2020). These machines allowed for larger profits to be made at the expense of human and ecological well-being. For this reason, Harvey (2014, p.98) emphasises that '[t]echnological change is neither costless nor painless and the cost and the pain are not evenly shared. The question always to be asked is: who gains from the creation and who bears the brunt of the destruction'. Not surprisingly, studies have shown that disempowered communities are more likely to live close to high-risk technologies and to suffer from their adverse effects than groups of elites (Robbins, 2011; Fraser, 2021). For instance, a study conducted in the U.S. showed that a larger percentage of African Americans (compared to whites) live within a 50-mile radius of nuclear power plants (Kyne and Bolin, 2016). Similarly, many peasant and indigenous communities in Brazil suffer from intoxications, mutations, and endocrine disruptions caused by agrochemical aerial spraying in surrounding large-scale agribusiness (Bombardi, 2017; G1, 2018; Paes, 2020).

Some engineers, politicians, and businesses portray technology as an apolitical, objective science free from values, interests, or the need for ethical considerations. However, the decision-making processes around technological design are critical in determining its purpose and impact on people's lives and ecosystems. By excluding communities from this debate, decision-making power concentrates in the hands of the 'technical-scientific-industrial-corporate elite whose power is enhanced by the technology they create' (Huesemann and Huesemann, 2011, p.249; see also Deutscher, 2005). As a result, high-tech, large-scale technologies tend to be preferred over low-tech, small-scale technologies, e.g., chemical over organic fertilisers (Cunha, 2015) or steam engines over water mills (Malm, 2016). High-tech devices keep power centralized, while low-tech alternatives tend to multiply and disseminate it. As a result of the capitalist tendency towards the concentration of power, 'what should be simple, local, environmentally friendly technologies are being transmuted into corporate-controlled, centralised, mega-profit-generating enterprises' (Huesemann and Huesemann, 2011, p. 238).

Another important misconception about technology is its isolation from socio-economic-environmental interferences. As Frey (2019, p.22) points out, 'technology is not a soloist but part of an ensemble. It interacts with institutions and other forces in society and the economy'. Some examples of that are:

a. The *rebound effect*, or *Jevons Paradox*. This refers to occasions when efficiency improvements made (through technological innovation) to reduce ecological damages (arising from the consumption of a resource) end up worsening the damage instead of lessening it. This happens because the increased efficiency of a given resource makes it economically more attractive, thereby increasing its consumption. As a result, the ecological damage arising from the increased consumption of the said resource surpasses the ecological gains achieved through the efficiency enhancement. These rising throughputs occur not despite but because of efficiency improvements, because 'an economic system devoted to profits, accumulation, and economic expansion without end will tend to use any efficiency gains or cost reductions to expand the overall scale of production' (Foster, Clark, and York, 2011, p.179).

b. *Additions instead of transitions*. This is most evident in the development of new energy sources. There is a critical difference between expanding production of a new energy source and transitioning away from current energy sources. As York and Bell (2019, p.43) point out, 'we should not assume that growth in the production of renewable energy sources is indicative of a move away from fossil fuels. Indeed, if the current moment of change in energy composition is like previous ones, we may expect simply an expansion of the overall amount of energy that is produced'. This means that the development of clean energy sources without policies designed to phase out fossil fuels use is likely to fail in its attempt to reduce GHG emissions from the energy supply sector.

Recognizing that technology is neither apolitical nor immune to socioeconomic and environmental interference demystifies it and outlines its real role in addressing the planetary emergency. It also highlights the importance of actively involving citizens/communities in shaping evolving technologies. As Sclove and Kaplan (2009, p.279) point out, '[i]f citizens ought to be empowered to participate in determining their society's basic structure, and technologies are an

important species of social structure, it follows that technological design and practice should be democratized'. Understanding that technology's contribution to a sustainability transition is dependent on complex interactions with political, economic, social, and environmental factors implies that a transition cannot be achieved solely through technological innovation, but also requires institutional changes, supportive policies, and public participation.

Technology plays a major role in structuring our society and our relationship with nature; therefore, it plays an important role in a sustainability transition. However, the dominance of the technical-scientific-industrial-corporate elite over evolving technologies has resulted in a focus on technologies that compensate for GHG emissions instead of reducing them. Most scenarios of the Intergovernmental Panel on Climate Change (IPCC) rely on large-scale CO2 removal from the atmosphere rather than emission reductions. Among the pathways presented by the 2018 IPCC, around 87% of its scenarios consistent with 2°C and 100% of those consistent with 1.5 °C require the large-scale deployment of Negative Emission Technologies (NETs), of which Bioenergy with Carbon Capture and Storage (BECCS) is the most popular proposal (Lenzi, 2018).

BECCS have the added benefit of producing energy in addition to removing carbon, whereas other NETs only remove carbon (Fuss et al., 2016). This helps to explain why BECCs are so popular compared to other NETs. Furthermore, there is interest in using the carbon captured by BECCS for other purposes, such as enhanced oil recovery (Burns and Nicholson, 2017) and to generate carbon credits for business-as-usual (Cunha, 2015). However, this overreliance on BECCs overlooks significant uncertainties, 'including supply (the actual negative emissions potential that can be realized), demand (the negative emission requirement to achieve a climate target), and implications (the intended or unintended socio-economic and environmental costs and consequences of deploying large-scale NETs)' (Fuss et al., 2016, p.2).

The notions of net-zero and environmental offsets are predicated on the belief that nature everywhere is of equal and tradeable worth. This belief allows nature to be gambled within an 'economy of repair' whereby 'unsustainable use "here" can be repaired by sustainable practices "there", with one nature subordinated to the other' (Fairhead, Leach, and Scoones, 2012, p.242). This idea contributes to framing ecological harm as 'unavoidable' and legitimating a 'right to pollute' in order to promote development (Gilbertson and Reyes, 2009; Sullivan, 2013a). As a result, the debate around 'green technology' shifts from a precautionary approach focused on avoiding harm to a reparative philosophy centred on mitigating and compensating for harm.

However, if 'offsetting' harm is deemed as good as doing no harm, then environmental harm loses importance.

The combination of technological innovation and market-based mechanisms has always been key in the capitalist approach to crisis management, including in the neoliberal conceptualisation of community-led projects (Brand and Wissen, 2013; Cunha, 2015; Foster and Clark, 2020; Clark and York, 2005b). Status quo and reformist strategies aim to handle certain symptoms of a failing system while preventing the transformation of its structure. Critics, however, content that handling symptoms is not enough. For instance, Hickel (2020, p.22) calls into question: 'once we had 100% clean energy, what are we going to do with it?' He contends that unless we transform our economic system, we will continue to use fossil fuels in the same manner. As is characteristic of capitalism, we will use it to fuel the reckless exploitation of nature and labour for the benefit of the few.

> [M]arkets and technologies are merely tools that serve the goals, the ethics, and the time horizons of the society as a whole. If a society's implicit goals are to exploit nature, enrich the elites, and ignore the long term, then that society will develop technologies and markets that destroy the environment, widen the gap between the rich and the poor, and optimize for short term gains. In short, that society develops technologies and markets that hasten a collapse instead of preventing it. (Meadows, Randers and Meadows, 2004, p.223-224).

From a transformative perspective, the current planetary emergency is not the result of a system's malfunction but its unregulated prospering. A socio-economic system focused on endless economic growth and wealth accumulation needs to continually extract more from nature and labour, thus violating their limits and causing them harm. The promise that economic growth and technological innovation will lead a *transition to a green economy that leaves no one behind*[6] is at least questionable (McAfee, 1999).

> The trends towards deeper unsustainability are products of the old assumptions, the prevailing ways of defining problems and solutions, and the established means of organizing power and authority. These institutionalized structures and practices are intricately intertwined, mutually reinforcing and firmly entrenched. While they have brought significant improvements in wellbeing for many people in

[6] This is the motto of the *green economy* ideal, which seeks to reconcile economic development and growth with environmental protection.

> many places, the most powerful established institutions are mostly designed and committed to maintaining the drivers of conventional economic growth and conventional distribution of benefits. They are not equipped, or as a priority inclined, to respect biospheric limits or to deliver sufficiency for all. (Gibson in Bond, Howitt, and Morrison-Saunders, 2013, p.9).

Growth in the economic system, as it is currently structured, is more likely to worsen ecological and social issues than solve them because it does not address structural controversies built into the system, such as 'success to the successful' feedback loops (Meadows et al., 1972; Meadows, Randers, and Meadows, 2004; Raworth, 2017; González de Molina and Toledo, 2014). Growth under a capitalist system was never a solution to poverty (Harriss-White, 2006), nor is it likely to be a solution to environmental degradation. On the contrary, the costs of economic growth have repeatedly been environmental degradation and social deprivation. Hence, '[w]hat should be crystal clear is that an economic system in which such costs are socially necessary has long ceased to be a socially necessary economic system' (Foster and Clark, 2020, p. 268).

For those who believe that system change is required (i.e., the transformative view), the dominant 'carbon-fixing' approach appears to be concerned with saving capitalism from carbon asphyxiation rather than laying the bricks for a just and sustainable path out of this multi-symptomatic planetary emergency. A just sustainability transition cannot be achieved through merely technological innovation and market-based strategies; it requires quite different goals to be put forward (re-purpose), as well as adequate policies and tools to support them (structural changes). Rather than minor adjustments, a just sustainability transition requires 'fundamental transitions in our authoritative institutions as well as transitions in the particular practices that are driving undesirable trends in planetary economy and ecology' (Gibson *in* Bond, Howitt, and Morrison-Saunders, 2013, p.9).

The next subsection investigates the role of community in different political approaches to sustainability transition. Its goal is to better understand how community involvement in the management of resources and/or the provision of social and environmental care can take different forms and have very different connotations.

2.2.2. The role of communities in bringing about change

The previous subsection discussed how different narratives frame the current planetary emergency on their own terms and lead to distinct strategies to tackle it. This subsection investigates how different ideological orientations and approaches to sustainability transition lead to very diverse forms of community engagement. It aims to de-romanticize the concept of *community* by calling into question its meaning and politico-structural context without diminishing its crucial role in transforming unjust and unsustainable capitalist practises.

Community participation is frequently portrayed as self-evidently good. This notion is underlined by people's right to take part in decision-making on affairs that affect their own lives – i.e., the right to participate in public affairs as codified in international law in Article 21 of the Universal Declaration of Human Rights. In this sense, community participation is intrinsically good because people should always have a say in affairs that directly (or indirectly) impact their livelihoods. However, community participation does not always result in environmentally sustainable or socially equitable decisions and practises. Furthermore, community participation does not always imply a shift (or share) in governance power; it can instead imply a neoliberal process of welfare state retreat accompanied by the individualization and de-politicization of social and environmental problems (Maier, Meyer, and Steinbereithner, 2016).

Due to the imagery that the word 'community' evokes, it has been employed in a wide range of political discourses – from the left to the right of the political spectrum (Somerville, 2016; Little, 2002; Frazer, 1999). 'Community' is a word that 'encompasses all forms of relationship which are characterized by a high degree of personal intimacy, emotional depth, moral commitment, social cohesion, and continuity in time' (Hillery *in* Blackshaw, 2010, p.21). This symbolic value makes it a word-ideal admired and celebrated by people, which 'explains much about its widespread usage in political discourse' (Head, 2007, p.441). The problem is that a word so full of certainty is hardly ever critically assessed (Blackshaw, 2010). Hence, there is a 'need to unpack the concept of community in order to achieve critical distance' (Little, 2002, p.2).

'Community' is a word frequently used in 'everyday speech, apparently readily intelligible to speaker and listener, which, when imported into the discourse of social science, however, causes immense difficulty' (Cohen, 1993, p.11). According to Benedict Anderson, communities are imagined as a unity that is not necessarily grounded in tangible relationships or common purpose

and collective action. Consider, for example, the phenomenon of nationalism. Anderson (2006) points out that even if most citizens have never met their fellow countrymen, and regardless of the actual inequality and exploitation that may exist between them, citizens of the same nation tend to believe they are alike and united by shared values and goals. For this reason, he argues that '[c]ommunities are to be distinguished, not by their falsity/genuineness, but by the style in which they are imagined' (Anderson, 2006, p.6).

According to Cohen (1993), the concept of community is subject to several meanings, although it is crucial to acknowledge that communities are consistently delineated by geographical and/or non-geographical boundaries, which serve to determine the inclusion or exclusion of individuals as members. As such communities have been categorised into different sizes, encompassing: a) small groups like families, friends, or colleagues (Royal and Rossi, 1996; Pahl and Spencer, 2010); b) medium-sized groups like neighbourhoods or villages (Chaskin, 1997; Twyman, 2000; Berkes, 2004; Fabricius and Collins, 2007); and c) large groups such as nations (Anderson, 2006). Communities may also have non-geographical boundaries, which might manifest through shared interests and goals. Indeed, several communities are exclusively delineated by boundaries that are not based on geography. These communities are commonly referred to as *communities of interest* and have experienced significant growth, particularly in urbanised and online settings (Bradshaw, 2008).

Communities are often associated with a sense of belonging, solidarity, and collective activities (in general) or collective action (in a political sense). The analysis of the sense of belonging and its impact on the well-being of individuals and society is a central focus in academic research (Royal and Rossi, 1996; Hammell, 2014). This sense of belonging arises through diverse forms of connectedness, encompassing both geographical and non-geographical ties. Royal and Rossi (1996, p.411) argue that 'frequent opportunities for involvement with others in shared tasks encourage more rapid development of sense of community'. Thus, collective activities can bring people together, establishing communities of being, which can foster social cohesion and have positive effects on well-being, but are not intended to produce change.

This study, however, focuses on the engagement of communities in the political domain, with a particular emphasis on analysing their role in influencing or transforming social and socio-ecological relationships both within local environments and on a larger structural scale. As a result, its primary emphasis lies in comprehending political communities as opposed to communities in a

broader sense. The distinguishing factor between political communities and communities of being lies in the motivation and organisation of their members to effectuate some type of change (Staples, 2016; Somerville, 2016; Little, 2002; Frazer, 1999). Hence, in addition to understanding in what sense a given community is 'a community', this study seeks to understand how and to what extent they are a transformative force.

According to Shaw (2008, p.27), in order to understand the real meaning of *community,* 'we need to look at what function it fulfils in particular contexts'. Since community participation has become a common political rhetoric, it is critical to consider whether this participation constitutes an increase in the influence of people and non-profit organisations, or whether it is 'the result of state-directed outsourcing and state-controlled devolution' (Head, 2007, p. 449). This question concerns the robustness of community power in such arrangements. As Arnstein (1969, p.216) points out, 'there is a critical difference between going through the empty ritual of participation and having real power'.

The importance of community empowerment in the process of overthrowing the capitalist system has long been emphasised by Marxists. According to Marx, a system that produces enormous accumulations of wealth for the few while enclosing and degrading natural resources and depriving and exploiting the mass of workers must be replaced with an association of free men holding the means of production in common (Marx and Musto, 2021; Foster and Clark, 2020; Foster, 2022b). Thus, according to Marxist theory, a worker-community controlled economy would promote a qualitatively distinct mode of production centred on the well-being of people and the planet, as opposed to profit accumulation.

However, a community-led vision for change often overly relies on an idealised conception of what a community is, and 'can all too easily obscure the social reality of communities and pre-empt necessity to locate community in its wider socio-economic context' (Shaw, 2008, p.27-28). The ideal of community closely knit together is a remnant of traditional community, which contrasts with current social orders, which are characterised 'by more specialized relations, an increasingly elaborated division of labor, and a more complex, fractured, and differentiated social structure' (Chaskin, 2012, p.107). Influenced by a nostalgic feeling, the concept of *community* 'often implies a (false and misleading) sense of identity, harmony, cooperation and inclusiveness' (Head, 2007, p.441). To rely on the existence of affective ties in communities as the leading reason to believe that a community-controlled economy would operate with more just and sustainable

practises than the capitalist mode of production is to fail to acknowledge ‘any downbeat versions of community’ (Blackshaw, 2010, p.21). That is, it is important to recognise that the affective bonds that draw people together are not always founded on positive values, like the common good, but can also be negative, like mutual hatred of certain groups.

Rarely do communities conform to the imagery of ‘small-scale human groupings socially bound by a common cultural identity, living within defined spatial boundaries, interacting on a personal rather than bureaucratic basis and having an economic interest in the common pool interests of the area' (Murphree, 2000, p.4). Instead, local settlements are often culturally heterogeneous, economically stratified, boundaries are porous, and social cohesiveness is fragile. Hence, as Chaskin (2012, p.110) points out:

> an overemphasis on identity and cohesion can lead to romanticizing the local community based on a misplaced notion of some past “golden age,” suppressing the recognition and appreciation of difference, underemphasizing the inherent reality of conflict and division within communities, and eliding broader issues of structure and agency that shape community circumstances from both inside and out, through the decisions and actions of political and market actors.

Affective bonds can play a role in communities' fight against the capitalist undermining of traditional bases of social solidarity and respect for nature, but they do not define it. Another way to think about communities is to think of them as a collective endeavour around questions of interest – either defending collective rights or promoting changes for the collective good. ‘Grassroots community organizations are formed as vehicles to address issues of concern, and the process of taking collective action on those issues’ (Staples, 2016, p.99). These collective organisations ‘are not necessarily reliant on strong affective connections or high levels of commitment, or defined within clear and discrete boundaries’ (Chaskin, 2012, p.111). That is, community organisation may not be based on affective ties, but be contingent, voluntary, and based on common interests and values.

Community organisation can happen organically as people come together around issues of mutual interest addressing them through direct action or by putting pressure on the government and/or private organizations through political campaigns – the grassroots origin. However, community organisation can also be fostered by policies that seek to engage communities in the government’s development goals. When fostered by policies, the reasons underlying the

government's support for community engagement may vary. Head (2007, p. 447) argues that 'a broader understanding of community engagement requires some consideration of the motives, intentions and purposes' of those involved, such as the government and community members. That is, both the government's motivations for pursuing more inclusive governance and the motivations of community groups for becoming involved should be examined. This could help clarify the power relations disparities entrenched in new governance arrangements, such as 'partnership' and 'collaboration' with communities and the third sector.

In the passage to the 21st century, there was a shift in some countries (including the UK, US, New Zealand, and Australia) towards a 'neo-communitarianism' – which is a political paradigm that puts emphasis on building institutional bridges between governmental officials and citizens, often referred to as 'community engagement'. (Fyfe, 2005; Head, 2007). However, some authors argue that this form of 'community engagement' has advanced a neoliberal agenda rather than a grassroots agenda because its policies eroded the welfare state, while tasking communities and the non-profit sector with a greater share of the caring work and its costs (MacLeod and Emejulu, 2014; Büscher and Whande, 2007; Hancock, Mooney, and Neal, 2012).

In the UK, this shift began with the New Labour government, which distanced 'itself from both ''Old'' Labour Left (pro-state, anti-market) and the Thatcherite Right (pro-market, anti-state)' (Fyfe, 2005, p.539) by adopting a Third Way political philosophy. The Third Way invested in market competition and economic growth while promoting civic participation in the provision of welfare goods and services. In lieu of power-sharing, this political philosophy allowed the state to maintain control over decision-making processes (through funding, service contracts, and regulation), while considerably shifting welfare responsibilities toward communities and non-profits and reducing government expenses.

This shift of caring responsibilities from governments to communities and non-profits has not only occurred in relation to social care but also environmental care (Büscher and Whande, 2007; Dressler et al., 2010). In the area of environmental protection, the Community-Based Natural Resource Management (CBNRM) approach has been receiving great attention in the last decades, particularly since Elinor Ostrom won a Nobel Prize in 2009 for showing flaws in Garrett Hardin's

Tragedy of the Commons hypothesis[7]. Since then, the commons have become 'increasingly contested arenas for political, legal and social actions by various state and community actors' (Combe, Glass, and Tindley, 2020, p.8).

The CBNRM approach has been embraced by governments all over the world to achieve a variety of political goals. As a result, it is not always clear whether community participation in natural resource management involves a genuine sharing of power or a hollow ritual of participation that relieves government accountability. The answer to such question might not fit on an either/or checkbox. Sometimes a hybridity can be at play so that approaches and rationalities 'cannot be reduced to simple characterisations of rolled-out neoliberalism or sustainable development' (Raco, 2005, p.324). In this regard, it should not be overlooked that communities are nested within a larger social structure and, as such, are 'both constitutive of, and shaped by, the wider politics around power, resource access and recognition' (Ojha et al., 2016, p.2).

It is critical to recognise both the constraining power of socio-political structures over community action and the transformational resistance that communities wield over socio-political structures. For instance, while governments may retain decision-making control through funding, service contracts, and regulation, 'community groups may decide to take independent or additional actions outside the formal channels established by public institutions (e.g., lobbying, protesting, establishing new forums for dialogue, establishing coalitions of support, developing community action plans, etc.)' (Head, 2007, p.444).

In addition to power-relation concerns, the idea of community engagement has been 'criticized for almost always assuming positive benefits for society' (Chaskin, 2012, p.108). Regarding CBNRM, positive outcomes are expected in both the social (e.g., equitable benefit distribution and poverty alleviation) and environmental domains (e.g., biodiversity conservation and sustainable utilization). However, evidence suggests that depending on the context as well as community rules and practises, CBNRM can result in less-than-ideal outcomes (Dressler et al., 2010). For instance, in some cases, decision-making and benefits are captured by specific groups

[7] The Tragedy of the Commons contends that individual users are compelled to overexploit natural resources held in common, seeking to maximise personal gain, which depletes common resources and jeopardises the well-being of all users. Elinor Ostrom, however, pointed out that 'the case made by Hardin was not a case of commons, but of open access (…) commons always imply some form of communal governance of the shared resource with corresponding systems of monitoring and enforcement of the communal rules so as to avoid resource depletion' (De Angelis, 2017, p.144-145).

to the exclusion of certain members of the community – such as women and minorities (Agarwal, 2001; Platteau, 2004; Labonne and Chase, 2009). Another example is that community development goals have occasionally assumed a much higher priority at the expense of conservation goals (Berkes, 2004; Kellert et al., 2000). Thus, contrary to popular belief, CBNRM is not inherently equitable or sustainable.

The CBNRM approach started to gain momentum in the 1980s as an alternative to coercive and unjust colonial conservation policy and practise (Dressler et al., 2010; Murphree, 2000; Reid, 2016). This alternative approach was heavily influenced by the notion that local people who have traditionally relied on local natural resources for subsistence have a greater stake in preserving such resources, as well as knowledge and practise in doing so, putting them in the best position to manage these resources. It was expected that this participatory approach to natural resource management would be able to attend to community needs while preserving the integrity of local ecosystems. However, in practice, CBNRM assumed various forms. For instance, it has been contended regarding community-led forestry that 'who does the managing, how, and for what varies widely, as does the level of success in terms of social justice (who benefits) and environmental sustainability.' (Bulkan et al., 2022, p.538).

Due to the failure of some CBNRM initiatives to meet socio-ecological expectations, the community-led approach as a whole has been 'challenged by a resurgent protectionist conservation' (Dressler et al., 2010, p.6). In response to resurgent protectionism, some authors have argued that 'many approaches labelled as "community-based" were in fact externally initiated and used as a veneer for top-down management, and that genuine systematic attempts to adopt participatory planning methods were rare' (Reid, 2016, p.5). Vulnerable local communities are often co-opted by governments and/or the private sector (Bulkan et al., 2022).

Cases where CBNRM produced suboptimal results were attributed to a variety of factors: some external, such as a lack of genuine community empowerment (Twyman, 2000), complex administrative and policy structures (Measham and Lumbasi, 2013), and the hybridization of its original grassroots purpose with neoliberal ideals (Dressler et al., 2010); others internal, such as a lack of adequate resources and knowledge/skills (Fabricius and Collins, 2007), and inequity in terms of decision-making power and benefit distribution among different social groups within

communities (Agarwal, 2001; Lawrence et al., 2020). These factors suggest that the government did not genuinely implement or facilitate the CBNRM approach.

Governments that fail to provide the legal and institutional framework necessary to enable CBNRM initiatives tend to co-opt their projects instead as a means of exerting political control over communities and suppressing local initiative (Bulkan et al., 2022). As Creamer (2015, p.ii) points out, 'the need for groups to adapt their ambitions and approach to align with top-down demands from funders is incongruent with the notion of a "community-led" initiative'. Instead of being empowered and treated as equal partners, communities are treated as a mere instrument for implementing external agendas under such arrangements. However, this is not always the case; 'outside support is not necessarily inherently problematic (and has proven very helpful when done well)' (Bulkan et al., 2022, p.539).

Besides, even when fully implemented, the right of communities to make mistakes and learn from them should be recognised to prevent hasty condemnations of the CBNRM projects. Furthermore, small-scale CBNRM initiatives 'may not produce the anticipated benefits, but at least any damage is limited and lessons learned can be applied immediately.' (Bulkan et al., 2022, p.539).

> What local regimes need to develop in their civil science is what any good science requires: the freedom to experiment, to make hypotheses and test them in experience. Professional science can help them do this, but a pre-condition is that local jurisdictions have the necessary entitlements to do so: the right to plan, the right to implement in their own manner, the right to make mistakes and the right to correct them. (Murphree, 2000, p.12).

In essence, the success or failure of CBNRM projects is determined by what is expected of them in the first place, and expectations regarding CBNRM are often inflated to unattainable levels (Murphree, 2000). At the same time, evaluating CBNRM projects can be difficult as a 'praise culture' shields community and non-profit organisations from critical evaluation, which results in 'ineffective learning-by-doing, in an area where it is badly needed' (Platteau, 2004, p.224). Instead, critically evaluating community-led projects can provide communities with valuable insights into what they are doing well and where they might improve in accordance with their own expectations and defined goals.

Overall, community participation can take various forms and have distinct outcomes. This variance stems from the government's motivations for supporting inclusive governance and how much power it effectively distributes, as well as from communities' internal organisation, capacities, and goals. While community participation in matters affecting their livelihoods is a fundamental human right, community-led initiatives are not always socially fair and ecologically sound.

2.3. On the capitalist mistreatment of people and the planet

This section delves into eco-Marxist literature and value theories to gain a better understanding of the society-nature relations fostered by the capitalist system – how they came to be and how they affect people's and the planet's well-being. To begin, it discusses how, by separating man from nature, the capitalist system is able to exploit both while reducing their value to monetary terms as mere productive resources (subsection 2.3.1.). Then, it investigates how labour is organised under capitalism and the effects of this organisation beyond workplace relationships (subsection 2.3.2). That is, it explores the effects of the alienation of workers as well as the loss of social values such as conviviality, social justice, and ecological balance under capitalist competition. Finally, it examines Marx's theoretical framework of metabolisms in order to comprehend how the capitalist mode of production is not only socially unjust but also ecologically unsustainable (subsection 2.3.3.).

2.3.1. The separation and undervaluation of nature and labour

Forests are vital to the well-being of people and the planet. They perform essential ecosystem functions to all life on Earth, including water cycle regulation and filtration, soil formation and protection against erosion, air purification and temperature regulation, carbon capture and storage, matter decomposition and nutrients circulation, pests control and pollination (FAO, 2018). Eighty percent of the world's terrestrial fauna and flora – including animals, plants, fungi, and microbes – live in forests, being co-producers of them (WWF, 2018; FAO, 2018). This biodiversity of life not only has value in itself (intrinsic value), but it constitutes a delicate ecosystem that provide us with several goods, such as food, medicines, and materials (e.g., wood, fibres, oils).

All these ecosystem functions make forests undeniably important to all people on earth. However, the more than 250 million people living in forest and savannah areas worldwide, who depend directly on them for subsistence and/or income, are the first to suffer from their losses (FAO, 2018). Among these people are the world's remaining indigenous populations and traditional rural communities. They have not only their means of livelihood threatened by the loss of forests but also their way of life, culture, and knowledge by being forced to move to urban peripheries and to sell their labour – often under extremely precarious working conditions (Harvey, 2014). In other words, these communities depend on forests 'for their material and cultural existence' (Deb, 2014, p.123).

Urban populations, in turn, even if unaware, have more to lose with forest losses than timber feedstock. Studies in the fields of medicine and psychology have shown that contact with nature promotes stress-reduction (Steg, Berg, and De Groot, 2012), improve cognitive function and mental health (Bratman et al., 2019; Bratman, Hamilton, and Daily, 2012; Berman, Jonides, and Kaplan, 2008), and boost physical activity (Hartig *et al*., 2014; Bowler et al., 2010), social cohesion (Robbins, 2020; Coley, Kuo, and Sullivan, 1997; Jennings, and Bamkole, 2019), and subjective well-being and sense of worth living (White et al., 2013; O'Brien et al., 2011; Díaz et al., 2006, Suttie, 2016). Evidence also suggests that contact with nature reduces 'risk factors and burden of some types of mental illness' (Bratman et al., 2019, p.3), including depression, anxiety disorders, and attention deficit and hyperactivity disorder (ADHD). Nature's mental health benefits are associated with multiple factors, including (a) external factors – e.g., decreased air and noise pollution; (b) internal factors – e.g., how our brain responds to nature, by relieving attention fatigue (Steg, Berg, and De Groot, 2012) and reducing blood pressure, heart rate, muscle tension, and the production of stress hormones[8] (Larson and Kreitzer, 2016); and (c) relational factors – e.g., increased positive social interaction and physical activity in green spaces (Bratman et al., 2019).

Therefore, nature has more than material importance for human populations. Forests, parks, and street trees have been increasingly recognised as sources of recreation and pleasure, aesthetic inspiration, and health promotion. This growing evidence of social, psychological, and physical well-being benefits from contact with nature has recently influenced the creation of new clinical

[8] However, since emotions influence perceptions, negative emotional responses such as fear (of wilderness or crime) can suppress positive benefits (Steg, Berg, and De Groot, 2012). Therefore, ensuring safety (regarding both physical and social aspects) in nature/parks is important to enable the promotion of their health benefits.

practises and health policies in many countries (ten Brink et al., 2016), including the UK, where GPs can prescribe contact with nature to help treat mental illness, diabetes, heart disease, and stress (Carrell, 2018; John, 2018; Mind Organization, 2007).

The way we see nature influences how we treat it; hence, the discussion about how we value our forests is fundamental to understanding the forestry practises and policies we design (Monbiot, 2017; Freyfogle, 2018; Dobson, 2000; Merchant, 1989). Values are not an abstract notion detached from reality; they help to shape reality while being shaped by it themselves. They are a set of beliefs or principles held by individuals or groups and 'expressed in the way people think and act' (Harmsworth and Awatere, 2013, p.279). As highlighted by Jason Moore, 'all civilizations have laws of value – broadly patterned priorities for what is valuable and what is not' (2016, p.14). These laws of value are not fixed but change over time as a result of critical reflection and debate that alter beliefs (philosophical and religious), knowledge (traditional and scientific), and interests (collective and individual) (Monbiot, 2017; Harmsworth and Awatere, 2013).

The most widely recognised theories that consider the value of nature can be divided into two categories: *instrumental* and *intrinsic* value theories (Fox, 1995). *Instrumental* value theories are those that regard the world in terms of human values (anthropocentric); nature has value only insofar as it serves human needs and interests. This form of valuation is frequently referred to as 'use value' and encompasses 'consumptive use value' (e.g., food and raw materials) and 'non-consumptive value' (e.g., aesthetic and spiritual inspiration) (Deb, 2014). Essentially, what all these values have in common is the central satisfaction of human beings. *Intrinsic* value theories, on the other hand, are those that believe nature has value in itself (ecocentrism), beyond and independent of human activities, needs, and interests.

Many ancient and indigenous civilizations nurture(d) an *intrinsic* value attitude towards nature. For instance, in traditional Chinese thinking, 'nature and man [are] joined into one whole' (Hou, 1997, p.482) and a sense of care towards human community and nature is stressed over an afterlife dimension. Māori knowledge places humans on the same plane as all living things (ecosystems, flora and fauna, land, water, etc.) and affirms that all living things depend on each other (Harmsworth and Awatere, 2013). Similarly, diverse indigenous communities of Latin America believe that 'buen vivir' (living well) means having a good relationship with 'Pacha Mama' (Mother Earth); for them, 'a dignified life is for all living beings or for none' (Acosta, 2018,

p.446) and should be assured today, not a promise for the future. These ancient and indigenous worldviews perceive humans as part of nature, nurturing respect for the simple existence of other beings in a sort of brotherhood or *biophilia*.

> Biophilia is an ethical dimension of the recognition of the existence value of life forms in indigenous societies. Many indigenous cultures tend to ensure the very existence of trees and animals, although they may have no practical use. The recognition of the existence value is an outcome of a combination of ethical and philosophical obligation of a group of people to objects and places, not an expectation of benefits, and therefore cannot be assigned an instrumental value in the manner of a typical item of consumption. (Deb, 2014, p.143)

However, many of these civilizations and their knowledge were decimated through time, and the remaining ones have been marginalised by the predominant capitalist model of society – which promotes a strict *instrumental* valuation of nature whereby nature is a mere resource (Hart, 2010; Agrawal, 1995; Smith, 2012). By becoming hegemonic with the rise of capitalism, the *instrumental* valuation or utilitarian concept of nature further assisted the agenda of those who promulgated this view (Castree, 2005; Merchant, 1989).

An important mind-twist for the formation of the capitalist worldview was the separation of man from nature, which was heavily influenced by certain religious beliefs and philosophic-scientific lines of reasoning. While this separation seems obvious to today's dominant modern societies, it is not easily sustained. Since diversity is an integral part of nature, a simple statement of differences cannot, on its own, separate us from nature. Therefore, efforts to separate human beings from any other beings searched to find means to justify the claim that humans are superior to the rest of nature. The two main justifications devised – for being made into the image of God or gifted by evolution – ultimately advocated the same: humans are special creatures destined to conquer nature. In general, this view is called '*human exceptionalism'*.

The Judeo-Christian conception of creation is highlighted by diverse authors for playing an important role in the consolidation of the idea of man's superiority and the capitalist utilitarian view of man towards nature (Mebratu, 1998; Merchant, 1989; Hunter, 1995; Harrison, 1999; Deb, 2014; Boyd, 2017). A clear example of this posture is identified by Harrison (1999, p.86) in Gen. 1:28: 'And God said to them "Be fruitful and multiply, and fill the earth and subdue it; and have dominion over the fish of the sea and over the birds of the air and over every living thing that moves

upon the earth"'. This conception of creation portrays man as a unique being, created in the image of God and tasked with mastering nature. Nature, on its turn, is sometimes portrayed as a servant or a gift; at other times, it is portrayed as a beast that needs domestication. The idea of nature as a 'free gift' to man was advanced by physiocrats and classical economists (i.e., Smith, Malthus, Ricardo, and Mill), allowing the free appropriation of nature as the basis of the capitalist mode of production and property (Foster and Clark, 2020). The idea of nature as a beast that needs to be dominated promotes a state of rivalry between man and nature for survival which fed a positivist approach to science – the search of understanding to control/dominate (notably in engineering science).

Although the Judeo-Christian conception considered humans to be the superior creatures living on earth, it is important to point out that not all men were masters, because not all humans were in fact considered to be fully human. Past definitions of 'human' were much different from what we understand it to be today[9]. As observed by Moore (2016, p.1):

> capitalism was built on excluding most humans from Humanity – indigenous peoples, enslaved Africans, nearly all women, and even many white-skinned men (Slavs, Jews, the Irish). From the perspective of imperial administrators, merchants, planters, and conquistadores, these humans were not Human at all. They were regarded as part of Nature, along with trees and soils and rivers – and treated accordingly.

The beliefs sustaining the denial of full humanness (through depreciation, animalization, and objectification) 'place members of despised outgroups beyond the boundaries of moral consideration' (Haslam, 2006, p.225), inhibiting empathy and promoting violence towards them. These beliefs have been historically fuelled by pseudo-science, dogmatic convictions, and a eugenic ideology that emerged in the Western European and Anglo-Americans' middle classes of the nineteenth century (MacKenzie, 1976; Mazumdar, 2005; Robbins, 2011; Said, 2003). They helped to legitimise the establishment of social stratifications, where each class (e.g., social class, gender, ethnicity, age, and nationality) has its own place, social role, and life value (Grusky, 2019; Anthias, 2001; Taylor and Rioux., 2017). They form ideologies that sustain categories of 'lesser' people, such as patriarchy, racism, xenophobia, and homophobia, thus allowing the capitalist

[9] Despite the efforts of human rights advocates, discrimination based on race, gender, nationality, sexual orientation, disability, and religion persists in many countries. This means that some people are still (legally or informally) denied basic human and civil rights because of personal features.

system to exploit and mistreat these people even more. Bearing in mind the focus of this study, this discussion is particularly relevant with regards to urban-rural stratification, which includes discrimination against the rural population and uneven development (Lobao, 2004; Shorrocks and Wan, 2005).

Besides the religious contribution to the 'ascension' of man from nature, certain scientific-philosophical assumptions also significantly propelled this dichotomy. The Scientific Revolution of the 16th and 17th centuries replaced the view of nature as an organism with a mechanistic view, thus removing 'the controls over environmental exploitation that were an inherent part of the organic view that nature was alive, sensitive, and responsive to human action' (Merchant, 1989, p.111). For instance, René Descartes' belief that animals were automata creatures implied a fundamental difference between animals and humans. His dualistic line of reasoning, more widely known for the separation of mind and body, nurtured not only the separation of humans from other animals but the distinction between 'culture', defined as the civilised and developed European society, and 'wildness', defined as the uncivilized, underdeveloped, or simply primitive societies (Johnson and Murton, 2007; Moore, 2016; Boyd, 2017). This dualism served (and still serves) to disqualify, displace, and silence the indigenous and peasants' voices during the capitalist process of expansion through enclosure and acculturation (Johnson and Murton, 2007; Peet, 1985). According to the ecofeminist Carolyn Merchant (1989), by the early 17th century, Indians who were commonly described as peaceful and loving people became described as 'wild, savage, slothful, and brutish outlaws' who 'had "little of humanity", were "ignorant of civility, of arts, of religion", and were "more brutish than the beasts they hunt."' (p.132). This belief in a superior form of social organization that undermines different ways of living is still frequently disguised in political discourse as 'development', 'progress' or 'modernization'.

Western European civilizations, believing themselves to be something else above nature, regarded and valued everything around them in terms of its utility to attain their own needs, interests, and whims. In other words, *nature* (including humans excluded from their humanity) was regarded merely as a resource (material and energetic resource) to fuel the European bourgeois model of society. For instance, when European governments had an interest in expanding arable land, forests were considered wastelands (which drove deforestation), but later, when demand for timber increased due to railway expansion and shipbuilding, forests were considered a valuable resource for economic development (which drove exclusionary conservation and commercial

plantation initiatives). These top-down utilitarian decisions were made with little or no regard to the values and interests of the indigenous and peasant communities of Europe and its colonies, or to the existence of non-human beings and ecosystems' autopoiesis capacities[10] (Deb, 2014).

Following the industrial revolution, nature's resources were increasingly valued by the ruling class as means of production more than as means of livelihood. 'Land became property. Living beings became things. Ecosystems became resources.' (Hickel, 2020, p.71). Common resources were then heavily seized by the European bourgeoisie for industrial purposes[11] (Wightman, 2010; Monbiot, 2017). Diverse natural resources, previously accessible to most people, managed and enjoyed collectively, were then privatised – resulting in abundance for the few and scarcity for the many. This process deprived communities of their means of livelihood and ways of life while creating a proletarian class (Wightman, 2010; Harvey, 2014). That is why Marx (1991, p.911) believed that 'the private property of particular individuals in the earth will appear just as absurd as the private property of one man in other men' from the standpoint of a higher socio-economic formation. In other words, man is not really free when forced to work under the will of another man in order to have access to the natural-material conditions of existence.

Harvey (2014) makes an important distinction between individual appropriation (based on usufructuary rights) and private property (based on exclusionary rights). He explains that something is appropriated when someone makes use of it. Private property, on the other hand, 'establishes an exclusive ownership right to a thing or a process whether it is being actively used or not' (Harvey, 2014, p.39). Ironically, the expansion of the exclusionary model of landownership was justified on the grounds that land was not owned unless it was improved – where 'improved' referred to a culturally specific use of land associated with economic development. This meant that 'indigenous population merely occupied and did not improve the land, and so did not own it, and were thus subject to laws of capitalist expropriation, amounted to an elaborate justification for their elimination as people and nations' (Foster and Clark, 2020, p.47). That is, private property rights

[10] *Autopoiesis* is a concept coined by Maturana and Varela (2012) referring to the capacity of a living system to reproduce and maintain itself. Donna Haraway (2016), however, prefers the term *sympoiesis* to stress the entanglement of life forms involved in the co-reproduction of a given system.

[11] Commons were grabbed by dominant groups before the industrial revolution (by the monarchy and church for instance), however, the intensity and way of land grab changed greatly since then.

were created and enforced by and for their beneficiaries, the European colonialist-bourgeoisie class (Wightman, 2010).

James Maitland the 8th Earl of Lauderdale, noticed in the early 19th century that 'there is an inverse relation between what he called "private riches" and "public wealth", or commons, such that an increase in the former can only ever come at the expense of the later.' (Hickel, 2020, p.61). Nonetheless, the creation and legitimization of exclusionary rights over the natural-material conditions of life were key to the birth of industrial capitalism (Foster and Clark, 2020). In the hands of industrialists, nature was stripped of its *use value to the people* and reduced to its *utility to industry* as a resource for producing commodities that generate profit that could be grown and accumulated beyond material limitations. That is, the abstraction of exchange value overthrew the material reality of use value.

Exchange value is a purely relative form of value since it only exists in relations of exchange and can only be expressed in terms of a common currency (Marx, 1976; Harvey, 2014). In other words, the exchange value only exists (or reflects the relations) in the abstract world of market fluctuations; differently from the use value that reflects a real-life necessity. As a well-known indigenous proverb says, 'you cannot eat money'[12], or wear it, or be sheltered by it. Despite that, with the expansion of industrialization and the intensification of market relations, commodities become more valuable for its value of exchange in the market than for its actual utility.

> People value money tremendously. Therefore, if you can show that people that something is worth a lot of money, or even better that they can make a lot of money from it, they will be more likely to value and take care of it. These seemingly straightforward propositions turn on a surprising inversion of material and abstract. For according to their logic, nature's material use values seem abstract and inconsequential, while its abstract exchange values seem compellingly and crucially important. (Igoe, 2017, p. 28).

Exchange value is created by human labour in transforming materials into a specific item of use (such as a pullover or a basket). Ultimately, the abstract exchange value of commodities must be linked (to some degree) to a use value in order for it to have worth for possible buyers. However, as the focus of production becomes the abstract form of value crystallised in the form of profits,

[12] The full proverb says, 'When the last tree is cut down, the last fish eaten and the last stream poisoned, you will realize that you cannot eat money'. It is a Cree Indians (Native American) saying from 1983 (Speake, 2015).

commodities are increasingly developed to maximise profit rather than their use value (in terms of fulfilling human needs and durability). As a result of the dominance of abstract over real value, capitalist societies recklessly exploit natural resources and labour power to produce a variety of superfluous goods and services. Thus, this socioeconomic system is not only a waste of natural resources and labour power (that could be put to better service) but end up filling landfills and the oceans with useless/needless products (Clark and Foster, 2010; Foster, 2013a). This calls into question the lack of social and environmental responsibility of the capitalist system with regards to what it produces and how it produces.

> The capitalist mode of production is indifferent to the social consequences of the commodities it produces. There are many ways in which commodities are socially harmful. Society may be injured by commodities in their consumption (e.g., weapons, tobacco and alcohol) or by uncommodifiable by-products which are dangerous to humans and other forms of life (e.g., nuclear waste, pesticide residues, waste which permeates and contaminates water tables). (…) There are many ways in which the impact of capitalism on the environment creates poverty. The logic of growth involves the growth of waste. In theory, at the micro-level, waste may be made useful, commodified and create employment. (…) In practice, much waste is uncommodifiable, either by virtue of relative prices or because of its damaging qualities. Such waste will create poverty through its impact on pollution, disease, work and reproductive capacity. (Harriss-White, 2006, p.1244).

In short, the capitalism mode of production tends to transform ‘a world of natural wonders’ into a pile of ‘ingenious rubbish’ (Monbiot, 2017, p.118). It destroys ‘public wealth (natural-material use values), generating scarcity and monopoly, thereby enhancing private riches (exchange value), with negative consequences for human society as a whole (Foster, 2022a). Furthermore, capitalist profits ‘are made possible by not only discounting the costs of current ecological deterioration, but also by depriving future generations’ (Benton, 1996, p.105).

Since the objective of the capitalist system is not to produce use value, but rather to generate ever-growing profits, value had to be decoupled from the finite material reality. Only in an abstract form can value be accumulated indefinitely. As a result of being detached from material reality, the capitalist system loses sight of the purpose of production, which is to meet human needs. As the abstraction of exchange value overthrows the reality of use value, ‘purely monetary claims to wealth’ rules over ‘real wealth’ consisting of natural-material use values (Foster, 2022a). As Empson (2017) states:

> Capitalism was a radical break with the past: for the first time, production of basic goods was driven by the accumulation of wealth for its own sake, and not primarily to satisfy human needs. This system of generalized commodity production has also changed us. We are alienated from the natural world, as the products of our own labor are no longer under our own control. Our very perception of nature is shaped by an economic system that treats "the environment" as a collection of commodities to be exploited for profit.

By separating man from nature, the capitalist system subdues both for the benefit of a few. This separation takes place in two layers: One is ideological, where man is seen as a superior being to the rest of nature. The other is material, where nature is privatised and man is physically separated from it, from its fruits, and from decision-making regarding human use of it. As a result, nature (separated from man) becomes open to being overexploited as a resource rather than being stewarded as a livelihood supporting habitat, and man (separated from nature) is forced to sell his labour power to survive. Separated from each other, man no longer protects nature, and nature no longer provides for man. Both nature and labour are placed in the hands of the bourgeoisie, reducing their value to that of mere resources – material and energetic resources that fuel the production of commodities to generate profits. As Kate Soper observes, 'the further effect of this separation, of course, is that it obscures not only the source of value of the commodity, but also the environmental damage that so often accompanies its production'. (*in* Benton, 1996, p.87).

Having their value reduced to monetary worth, nature and labour are then further undermined by capitalist market regulations. In pursuit of ever-increasing profits, production costs are often reduced by removing rights and protections, thereby cheapening labour power and natural resources. Thus, the capitalist laws of value benefit the elites (enhancing their standard of living and political influence) through the production of abstract wealth, while creating real poverty as a result of its social and environmental devastation. Evidently, this socioeconomic system cannot be sustained. Ultimately, 'the growth dynamic and dominant mode of calculation (monetary) in capitalism result in tendencies to undermine the conditions for the reproduction of labour power and to undermine ecological life-support systems. There is an inherent tendency for capitalism to erode the conditions of its own existence.' (Benton, 2017, p.75).

The following table summarises the meaning of the three value categories that are discussed in this section.

Table 2.3.1. Key categories of the value of nature.

Intrinsic value	Use value	Exchange value
The existence value of nature, independent of human needs and affairs (eco-centric).	The value of nature in attending to human needs, i.e., real wealth (anthropocentric).	The monetary value (i.e., price) of commodified nature in market transactions (market-centric).

In conclusion, the literature reveals that according to the capitalist laws of value, nature and labour are only valuable as material and energetic resources in the process of profit generation, which is inequitably accumulated by a select group (the bourgeoisie). Thus, the same profit-driven mentality that recklessly exploits and undermines nature also exploits and undermines labour. That is, 'the expropriation of nature is at the same time the expropriation of land/ecology and the expropriation of human bodies themselves' (Foster and Clark, 2020, p.8). The 'capitalist production (a specific and recent kind of production) requires the extraction of surpluses from labor and nature' (Robbins, 2011, p.54). It is, therefore, evident that both social inequalities and ecological degradation are rooted in an unjust and unsustainable economic system and can only be tackled together. For this reason, 'any scheme of environmental thought abstracted from a social context and lacking a theory of political power (…) is inadequate and misguided' (Hay, 2002, p.27-28).

The next subsection examines Marxist theory and literature in order to understand how capitalism organises labour, and how the effects of this organisation transcend the workplace. That is, how capitalist social relations of production shape a distinctive mode of life that has undermined ancient values and social arrangements that traditionally prioritised the common good over private interests.

2.3.2. Capitalist social relations of production and mode of life

Since the proletariat was stripped of the means of production and subsistence (due to the privatisation of the commons), proletarians must sell their labour in order to gain access to the means of life. Therefore, they became compulsorily dependent on market relations (Wood, 2017), and their work force itself becomes a commodity which value is determined by the market. The effects of this process of commodification of labour extend beyond employment relations and an

unjust distribution of wealth. Capitalism frames 'a "definite mode of life" that shapes our relationships with others, our sense of ourselves and our capacities, practices, and actions in the material world' (Cole and Ferrarese, 2018, p.105). This is evident, for instance, in Marx's Theory of Alienation which argues that by selling their labour power for a wage, the proletariat becomes alienated.

> Marx listed four ways in which the worker is alienated in bourgeois society: (1) from the product of his labour, which becomes "an alien object that has power over him"; (2) in his working activity, which he perceives as "directed against himself", as if it "does not belong to him"; (3) from "man's species-being", which is transformed into "a being alien to him"; and (4) from other human beings, and in relation to "the other man's labour and object of labour". (Musto *in* Marx and Musto, 2021, p.6-7).

By selling his/her labour, the worker loses the ability to define the work being performed. He/she is unable to define 'what' is produced, as well as 'why' and 'how' something is produced. The worker becomes a cog in the machine. His/her productive force is directed by the will of the bourgeoisie (owners of the means of production and buyers of labour power). Workers are alienated from the product of their labour since they are unable to own or benefit from the goods and services produced with their own labour power. They are alienated from the working activity since they follow orders and are not fully aware of the process or the meaning of that work. They are alienated from themselves since they are not in control of their own actions and are not allowed to think (conceive) their own work. They are alienated from others since they interact with co-workers under the rules imposed by those organising work and the workers.

In this way, besides losing its meaning as an activity that should provide for human needs (producing use value), work within the capitalist mode of production also loses its meaning as an activity that should be fulfilling the human species-being (by allowing humans to think, to create, to self-actualize). Work is more than an activity necessary for human survival; 'the sense of fulfilment it brings makes it indispensable for our self-esteem and the regard of our peers' (Lucassen, 2021, p.12). For Marx, the separation of man from nature also meant that man was separated from the conditions of meaningful labour. Separated from nature, man was compelled to sell his labour since he could only have access to the means of production by being employed by the owners of the means of production. Consequently, workers were obliged to produce on terms they did not determine. Thus, submitted to the will of another person, labour is no longer an

expression of one's own ideas and values, nor does it satisfy the psychological need of the worker to think and exert control over his/her actions.

> My work would be a free manifestation of life, hence an enjoyment of life. Presupposing private property, my work is an alienation of life, for I work in order to live, in order to obtain for myself the means of life. My work is not my life. Secondly, the specific nature of my individuality, therefore, would be affirmed in my labour, since the latter would be an affirmation of my individual life. Labour therefore would be true, active property. Presupposing private property, my individuality is alienated to such a degree that this activity is instead hateful to me, a torment, and rather the semblance of an activity. Hence, too, it is only a forced activity and one imposed on me only through an external fortuitous need, not through an inner, essential one. (Marx *in* Marx and Musto, 2021, p.7).

Marx believed that labour should satisfy both human material needs (by creating use value) and psychological needs (by allowing labour to be an activity of human expression rather than a mechanistic act). However, Marx contends that in capitalism, labour was only considered productive insofar as it generated profits, or 'only insofar as it generated surplus value for the capitalist.' (Foster, 2013a). This pushed many activities to be economically and socially devalued.

Feminist scholars have pointed out that labour that is not directly associated with the production of commodities, such as reproductive labour and care labour – which falls disproportionately on women – is regarded as a 'free gift', akin to nature (Salleh, 2009; Eisler, 2008). Since monetary valuation was confused with worth, not only were caregiving activities (such as caring for children, the sick, and the elderly) devalued, but so was the act of caring in general (for ourselves, others, and the environment). According to Eisler (2008, p.56), the act of caring has been characterised as soft, feminine, counterproductive, and even as 'irrelevant to business success'. This is also evidence that capitalism is more than an economic system; it is deeply intertwined with socio-cultural values and practises that shape a specific mode of life (Cole and Ferrarese, 2018; Fraser, 2021; Wood, 2017).

Wood (2017, p.7) argues that the market dependence imposed by the capitalist system allows its market imperatives (of profit-maximization and accumulation through competition and a systematic need to increase productivity) to 'regulate not only all economic transactions but social relations in general'. In other words, the laws of motion of the capitalist market foster cultural norms and ideologies whereby trading trumps sharing, individualism trumps collectivism, debts

trump reciprocity or generosity, and accumulation trumps sharing and distribution (Eisenstein, 2011). In this way, capitalism promotes values and behaviours that continue to 'destroy all ancient social arrangements that used to prioritize the interests of the community over private interests' (Deb, 2014, p.138).

Under the market fundamentalism of capitalism and its accompanying neoliberal ideology, 'each person must devote their life to sustaining competition, in conditions of ever-increasing resource constraints and corrupted goals, which reproduce the same collective problems' (De Angelis, 2017, p.3). Besides, the promise of economic ascension via neoliberal meritocracy is a mirage sustained by exceptions to the rule (Sandel, 2020). Regulated by the market as a commodity, the wages of the proletariat are only (or barely) enough to afford everyday and non-durable goods, meaning that they are generally incapable of accumulating capital and must continue to sell their labour power (Marx, 1933). The bourgeoisie class, on the other hand, has more than enough to sustain its subsistence and lifestyle, being able to continuously accumulate more capital. Furthermore, they tend to invest part of their profits in the development of new technologies or to influence political decision-making that might cheapen the value of nature and labour (the costs of production) in order to increase their profit margin (Marx, 1976). As a result, it is evident that the capitalist system prioritises the concentration of wealth over its distribution, resulting in an ever-widening gap between the rich and the poor.

As ancient values of solidarity between people (conviviality and social justice) and between species (biophilia) were eclipsed by capitalist values and its way of life, capitalist societies came to have a single objective: the relentless, endless accumulation of capital (Marx, 1976). This dominant purpose is illustrated by the measurement of 'development' adopted by these societies, which measures Gross Domestic Product (GDP) instead of human and environmental well-being (Stiglitz, 2009; Meadows, Randers, and Meadows, 2004; Raworth, 2017; Hickel, 2020). This indicates that the common good is now understood mostly in economic terms (Sandel, 2020). Consequently, capitalist societies accept any sacrifice, such as environmental and social degradation, in pursuit of economic growth – without giving proper thought to what growth offers and costs them. In this context, 'values of conviviality, social justice and ecological balance as well as the goal of livelihood get squeezed out by this incessant competitive struggle, which instead shows what such a systemic integration really values: growth for growth's sake.' (De Angelis, 2017, p.31-32).

The following subsection turns to the relationship between society and nature under the capitalist system, discussing Marx's theoretical framework of metabolisms – which encompasses the concepts of universal metabolism, social metabolism, and metabolic rift.

2.3.3. Capitalist socio-ecological relations of production and its metabolic rifts

Marx's theoretical framework of metabolisms proposes that human beings, organised into a model of society, engage with the rest of nature through metabolic exchanges. If the *social metabolism* of a given model of society (which is shaped by its mode of production) harms the *universal metabolism* (i.e., the autopoietic capacity of nature), it jeopardises the conditions of its own reproduction and that of other species. In other words, if a model of society is characterised by a harmful relationship with nature, it cannot sustain itself as the autopoietic capacity of the ecosystems (which it depends on) is compromised, thus its own well-being or even its own existence is compromised. Marx referred to this erosion in the relationship between a social system and its natural-material foundation as a *metabolic rift*.

Rather than an attempt to solve a philosophical problem, Marx's framework of metabolisms was an 'endeavor to ground his critique of political economy materialistically in an understanding of human-nature relations' (Foster, 2013a). That is, Marx's theoretical framework of metabolisms aims to enable the study of the society-nature relationship from its material basis. The concept of social metabolism is commonly defined as 'the particular form in which societies establish and maintain their material input from and output to nature and as the way in which they organize the exchange of matter and energy with their natural environment' (González de Molina and Toledo, 2014, p.44). Its analogy with the concept of biological metabolism emphasises that societies depend on flows of natural-material goods and services. This metabolism, however, is not biologically determined, but rather historically shaped by the social organisation of labour.

> Labour is, first of all, a process between man and nature, a process by which man, through his own actions, mediates, regulates and controls the metabolism between himself and nature. He confronts the materials of nature as a force of nature. He sets in motion the natural forces which belong to his own body, his arms, legs, head and hands, in order to appropriate the materials of nature in a form adapted to his own needs. Through this movement he acts upon external nature and changes it, and in this way he simultaneously changes his own nature. (Marx, 1976, p.283).

Marx drew his framework of metabolisms on the work of the German chemist Justus von Liebig, who observed that the capitalist model of agriculture disrupted the soil nutrient cycle by promoting the physical separation of food production and consumption - that is, the rural/urban divide[13]. The 19th-century soil depletion crisis was a serious environmental problem for Europe and North America, and the responses it received are an example of how short-sighted quick fixes can be (Richardson-Price, 2016).

When faced with the soil depletion crisis, industrialised countries (notably Britain) addressed their soil depletion issue by transferring/expanding the metabolic rift to other parts of the world through the import of organic fertilisers and grains. Britain resorted even to bones from Napoleonic battlefields and European catacombs, and later led the international rush that stripped many small islands, such as the Chincha Islands off the Peruvian coast, of their rich guano[14] through forced labour (Clark and Foster, 2009; Foster, 2013a). In addition to that, 'a large part of the British metabolic rift was transferred abroad, to the main exporters of grain to Britain – Germany, Russia, and the United States – depleting their soils and permitting the British to concentrate on sheep and cattle' (Foster and Clark, 2020, p.118). Secondly, industrialised countries perpetuated and deepened this rift through the development of modern agrochemistry – which is today known for polluting waterways, releasing toxins into food chains, and contributing to climate warming, among other issues (see Carson, 1965; Kremen, Iles and Bacon, 2012; Bombardi, 2017).

> Faith in the power of chemicals to catalyze plant growth replaced agricultural husbandry and made both crop rotations and the idea of adapting agricultural methods to the land seem quaint. As the agrochemical revolution overturned practices and traditions developed and refined over thousands of years, large-scale agrochemistry became conventional farming, and traditional practices became alternative farming – even as the scientific basis of agrochemistry helped explain traditional practices (Montgomery, 2007, p.184-185).

Importantly, neither the seizure of organic fertilisers from abroad, nor the development of modern agrochemistry addressed the root causes of the soil depletion issue. Addressing the root cause required something beyond technological or trading fixes; it required the physical separation of food production and consumption to be reduced or dismantled. That is, it required political will to

[13] Due to the physical separation of production and consumption, organic waste and manure did not return to fertilise farmed soil, but instead accumulated in urban peripheries.
[14] Guano is a highly effective fertiliser composed of accumulated seabirds' manure.

undo centuries of land enclosure, to demolish the very foundation of the capitalist system – the alienation of labourers from the land. Since such a reform conflicted with the interests of the already well-established elite, the robbery and poisoning of faraway lands was preferred.

Chemical and mechanical technology were progressively employed in an effort to 'fix' metabolic rifts and to increase agricultural yield, ostensibly promoting food security. However, the fact that millions of people remain hungry in the world today, despite abundant food production, demonstrates that capitalist agriculture was never about feeding people, but about making profits (Kremen, Iles and Bacon, 2012; Magdoff and Tokar, 2010; Wittman, 2009). As Marx explains:

> all progress in capitalist agriculture is a progress in the art, not only of robbing the worker, but of robbing the soil; all progress in increasing the fertility of the soil for a given time is a progress towards ruining the more long-lasting sources of that fertility. (…) Capitalist production, therefore, only develops the techniques and the degree of combination of the social process of production by simultaneously undermining the original sources of all wealth – the soil and the worker. (Marx, 1976, p.638).

The soil depletion crisis of the 19th century is a relevant example of why, how, and in whose interest, responses may avoid addressing the root causes of problems (Richardson-Price, 2016; see also Montgomery, 2007; Foster and Clark, 2020). The capitalist need to keep going under conditions of environmental degradation, by relocating production and applying technological fixes, demonstrates that solutions vested in the interests of the capitalists exacerbate metabolic rifts (deepening or expanding them to other location) rather than avoiding or mending them. Beyond the agricultural sector, other forms of ecological imperialism have been and continue to be a constituent part of the capitalist system – generating multiple metabolic rifts (see Clark and Foster, 2009; Hornborg and Martinez-Alier, 2016; Hornborg, 1998). Today's struggles over how to tackle the great metabolic rift created by fossil-fuelled capitalism were previously discussed (in section 2.2.); indicating that dominant socio-environmental strategies are generally subordinated to the imperative of economic growth. The alienation of the worker from the land, and their disempowerment in decisions regarding how society organises its production and relationship with the natural environment, lead to the prevalence of technocratic and market-based 'fixes' over transformative change.

> From its beginning, the proletariat is alienated from both nature and its own labor, as the productive interchanges between people and nature are converted into means of

> competitive profit-making. The proletariat's struggle for a decent life has always been a struggle in and against unhealthy conditions both inside and outside the workplace, at home and at work—a struggle for a healthier connection with nature as a condition of human development. (Burkett, 2017).

Overall, a socio-metabolic analysis demonstrates that capitalist societies are unsustainable because their ravenous behaviour is incompatible with the autopoietic capability of nature (the universal metabolism). Furthermore, they are unjust since they prioritise wealth accumulation over meeting human needs for all. In a nutshell, capitalism is a socio-metabolic organisation that fails to satisfy human needs while destroying the natural-material conditions for human existence (along with that of many other species). Thus, the ecosocialist theoretical framework invites us to approach the transition to sustainability as a system-wide transformation of society. Yet, ecosocialism is sometimes criticised for focusing on exposing socio-environmental problems rather than providing actual avenues for action to transform them. In Chapter III, the need for a better operationalisation of the ecosocialist framework for empirical research and action will be examined in-depth.

2.4. The shared history of Scottish forests and folks

This section provides an ecohistorical materialist account[15] of Scotland's forests, thus focusing on how human activity shaped forests and forests shaped human activity over time. The first subsection 2.4.1. traces the way in which different groups of people made use of woodlands (particularly for timber) and how power asymmetries allowed certain groups to enclose forests for their exclusive use. This history reveals that Scotland suffered a dramatic decline in woodland cover, as well as a decline in biodiversity and cultural diversity. Then, subsection 2.4.2 shows that the woodland expansion in Scotland throughout the 20th century did not constitute an ecological restoration because the majority of woods planted were non-native monocultures – as part of a massive government-sponsored afforestation scheme centred on lumber production. Finally, subsection 2.4.3. sheds light on how the land reform movement and a forestry paradigm shift in the

[15] An ecohistorical materialist account can be defined as an account that 'looks at the relationship between the resources associated with a given natural ecosystem (a forest, marsh, ocean, stream, etc.) and the human factors affecting its stability or disruption over historical time periods. Historical change becomes ecological change, emphasizing human impact on the system as a whole. Conversely, ecological change is the history of ecosystem maintenance and disruption.' (Merchant, 1989, p.42-43; see also Foster and Clark, 2020).

passage to the 21st century contributed to the emergence of Community Woodland Groups (CWGs) in Scotland. It also investigates the role attributed to these emerging CWGs, which are expected to contribute to the restoration of degraded woodlands and the development of neglected communities. Overall, this section outlines the history that shaped Scotland's woodlands and communities, culminating in the emergence of CWGs as Scotland's hope for more just and sustainable forestry.

2.4.1. Scotland's ecological and sociocultural clearances

Scotland is known for its natural beauty; however, its scenic empty hills are not natural but the result of historical processes of ecological and social clearances that (considerably) robbed the landscapes of their biodiversity and cultural diversity. To better understand how the Scottish landscape was shaped – in its ecological and socio-cultural dimensions – this subsection investigates its patterns of forests enclosures, commodification, and exploitation, as well as its links with a history of colonization, politico-cultural deprivation, and alienation. This investigation produces an overview of the main factors contributing to Scotland's woodland decline from its maximum coverage of ≈60% around 3,000 BC to its historical low of 5% at the beginning of the 20th century.

People came to (what is today known as) Scotland with the trees – after the melting of the last Ice Age. Mesolithic hunter-gatherers lived 'within and belonging to woods' (Smout, 2003, p.29). They handled fire as a hunting technique and developed preferences for specific plants as sources of food and fuel. In this way, it is assumed that they contributed to niche construction, but their interference was too mild and nomadic to disrupt ecosystems (Bishop, Church and Rowley-Conwy, 2015; Smout, 2003). Even later, with the advent of agriculture at the onset of the Neolithic age (4,100 BC–2,500 BC), the techniques, scale, and intensity of agricultural practises employed did not disrupt ecosystems but rather integrated them (Olsson, 2018).

Having favourable conditions, woodlands spread to over half of Scotland with a rich fauna and flora, peaking between 4,000 - 3,000 BC (Smout, 2003; Oosthoek, 2013). Following them, a variety of tribes with distinct ethnicities, ways of living, and governance styles settled through the territory: the Norse in the north, Scots in the west, Saxon colonies and Picts in the east, and the descendants of Roman soldiers in the south (Wightman, 2010, Foster, 2014). However, over time, Scotland's woodland cover along with its biodiversity and cultural diversity was considerably lost.

Archaeologists have associated the massive decline of Scotland woodlands with a mix of climatic and human interferences. The abrupt cooling in the late Neolithic Age, which caused the collapse of 73% of the pinewood population, is arguably the most recent large-scale climatic interference suffered in this region (Moir, 2008; Smout, 2003; Oosthoek, 2013; Tipping et al., 2012). Anthropogenic interferences, on the other hand, were more cumulative than abrupt and have only become significant in scale and long-lasting from the Iron Age (700 BC) onward.

> Prior to the middle of the Iron Age, around 2,500 years ago, the involvement of people with their woods had been an intricate one, a symbiosis rather than the confrontation that we often think. (…) Both trees and people shared the same vulnerability to the greater driving force of climate and landscape change. Perhaps it was this, combined with the knowledge that since the beginning of time each had shared the others landscape, that allowed enduring respect. In large measure, this intimacy was lost in the coming hundreds of years (Smout, 2003, p.39).

The coming hundreds of years were marked by major social changes that shifted the way certain groups related to their environment and allowed their dominance over other groups and ways of living. In this context, the advent of iron tools facilitated woodland clearances and contributed to the expansion of settlements and the transition to agricultural systems on permanent arable land (Smout, 2003; Hunter and Carruthers, 2012; Olsson, 2018). However, the advent of new tools has only facilitated, not driven deforestation. Changes in the ideology that accompanied the invention of new tools and the use made of them is what framed the social practices of that time (Brown, 1997).

Yet during the Iron Age, Scotland was not a single 'cultural continuum'. Therefore, the relationship each tribe established with its landscape, as well as its social dynamics, should be considered in its own specificity (Hingley, 1992; Brown, 1997). Gradually, however, this cultural multiplicity faded. It faded (to some extent) through the amicable exchange of items and ideas (Hingley, 1992), but above all through a gradual politico-cultural conquest that transformed Scotland's tribal society into a centralised kingdom (Taylor, 2016; Wightman, 2010).

The kingdom of Scotland begins to emerge around AD 800 (Smout, 2003), through a process of land grabbing – whereby land was grabbed and granted as feus in return for knight services. In this way, mediaeval kings gauged the support they needed to govern vast territories. That is, kings ruled with and through the landed aristocracy they helped to establish (Taylor, 2016).

This process of land grabbing and gifting enabled the establishment and expansion of the kingdom in the material sense (territory and its resources) and political sense (power of governance). Then, the creation of a law of inheritance[16], combined with other products of politico-economic dominance, assured its continuity. Thus, eventually, a feudal system of land tenue replaced land tenue based on Celtic and Nordic traditions, and a central authority was established over the inhabitants of this territory (Wightman, 2010).

In Scotland, feus were mostly granted to foreigners (from Flanders, Normandy, and England). Then, with the expansion of the feudal reign, the remaining native nobility was co-opted or coerced into the feudal system by accepting monarchic confirmation of their landownership – which (symbolically) meant their recognition of and submission to monarchic power (Taylor, 2016). Therefore, it can be argued that Scotland's feudalisation was a form of colonisation[17] (Davies, 2000; Wightman, 2010; Mackinnon, 2017). That is, it was a process of land grabbing and ideological dominance that gradually eliminated (considerably, if not completely) the cultural diversity[18] of its native tribes.

With the consolidation of feudalism, control over woodland resources 'rested in the hands of the land-owning elite; the crown, the nobility and the church' (Mills and Crone, 2012, p.30). Such control was established under the terms of 'vert and venison' – meaning any plant or animal within the forest. Thereby, land and all the natural resources it supports become owned, and the use one could make of them was defined by those who owned the land. This means that, at least in theory, permission from the landowner was required to use any resources or perform any activity within the woods – including timber collection (both greenwood and dead wood) or broom (which was commonly used as a roofing material), foraging (for edible or medicinal plants, fruits, mushrooms, or nuts), and hunting (Smout, 2003). Therefore, the feudal land tenure was based on an early form of private property rights over land and all its material resources – which is an exclusionary form of right.

[16] This law, which was officialised in 1292 in Scotland, was based on primogeniture (eldest male born). Females could only inherit after all male lines had been exhausted. This rule guaranteed the maintenance of concentrated land ownership and power (avoiding the division of states from one generation to another). Furthermore, the male priority over female heirs contributed to the structural subordination of women to men in society (patriarchy). The law of primogeniture was only abolished in Scotland in 1964 (Wightman, 2010).

[17] As per its definition, 'colonialism' is a concept created to 'describe the means and manner by which [certain] societies sought to impose their forms of rule, and their cultural, social, political, economic and juridical norms, on other societies and their resources' (Mackinnon, 2017, p.26).

[18] Cultural diversity here refers to language, traditions, and religion, as well as ways of living and governance.

The concept of private property is the norm today. It is accepted as something natural or essential for the establishment of the so-called 'civilized society'. However, it was not always the case. Many Scottish tribes (as well as other tribal societies around the world) operated a system of usufruct rights (McIntosh, Wightman, and Morgan, 1994; Hoffman, 2013). To turn the notion of natural resources (as being common to all creatures by birth) into private property by law (to be governed/used according to the will of a select group of people), an ideological shift was required. The Church played a major role in fostering this ideological shift that justified the exclusive seizure of natural resources during the Middle Ages. Wood (2002) highlights the importance of the Christian concept of sin as a justification for the establishment of exclusionary rights over resources and for the subjection of people to the governance of the king (who was thought to have been chosen by God to rule). She argues:

> Medieval thinkers considered that both property and the subjection of one person to another were the result of sin. In Paradise there was no private property, for everything was held in common, and the fruits of the earth were naturally shared. But after the Fall, when human nature became corrupted by sin, human institutions such as government and property became necessary. They were seen as divinely ordained remedy for sin, which would help to order human life in its degraded state (Wood, 2002, p.17).

As Eisler (2008, p.33) highlights, 'the belief that human beings are essentially evil and selfish – and hence the necessity for their strict control through hierarchies of domination – is a cornerstone of dominator mythology. It's embedded in religious ideas of "original sin" and sociobiological theories about "selfish genes".' Beyond the use of military force to conquer and defend territories, the ideological domination of people by the Church was crucial to ensuring that monarchic power was recognised, and its governance accepted. The Church had a fundamental role in shaping a specific conception of the world, establishing laws, and, ultimately, organising a state. Thus, the persecution of any other form of religion (paganism) – such as the destruction of Celtic sacred groves and trees – was more than religious intolerance; it was a political act that contributed to a process of cultural clearance for dominance (Hunter, 1995; Monaghan, 2014).

Once land became owned, restrictions on woodland access began to be imposed. However, in Scotland, they were not immediately stringent but toughened over the course of the mediaeval period (from AD 400 to 1500). Eventually, hunting became an activity reserved for the nobility and aristocracy – thus shifting from being an activity of livelihood support to becoming an elitist sport and form of warfare training. Likewise, commoners' access to high-quality timber became

progressively limited as the aristocracy's lavish use of it in domestic architecture became a symbol of their power (Smout, 2003).

Archaeological findings suggest that Scotland had sufficient timber to supply its own demand in the construction sector up until 1350 (Smout, 2003). After that, however, increasing amounts of timber for building and wood products were being imported to the Scottish Lowlands from other parts of Scotland and Europe (mainly from Scandinavia). In fact, all the timber used in pre-1450 Scottish buildings has been identified as native oak, while most of the timber from later buildings has been identified as imported (Mills and Crone, 2012). In response to timber scarcity, the first legislation on woodland management was created in Scotland in 1424, banning the use of wood[19] without permission and encouraging tree planting (Smout, 2003).

By 1500 (the beginning of the modern age), the landed nobility was well established, but it was the Church that had become the wealthiest landowner in Scotland (as in most of Western Europe). Displeased with the overpowering status of the Church and its divergent ideas, the nobility pushed the Reformation (Ekelund et al., 1996). However, differently from the Reformation in England, the Scottish nobility grabbed most of the land from the old Church before the new Church could do so (Wightman, 2010). Consequently, the Scottish nobility became richer and more powerful, and Scotland officially became a Protestant country in 1560. Yet, Scotland was a strongly polarised country, divided 'between Gaelic-speaking highlanders and Scots-speaking lowlanders whose whole lifestyles and economic strategies were at variance, leading to frequent clashes of culture and arms' (Hall and Price, 2012, p.20).

Regarding the woodlands, the Parliament had already considered them 'utterly destroyed' by 1505. However, evidence shows that parts of the Highlands were still considerably well-wooded at the time (Smout, 2003). These semi-natural woods had survived because they were far away from the Lowlands and extremely difficult to access due to a lack of transport infrastructure – it was easier and cheaper to import timber than bring it from the Highlands (Mills and Crone, 2012). It would be, however, a mistake to assume that the Highlands were still considerably well-wooded because they were untouched by mankind. In fact, the distribution and composition of woodlands in the uplands of Scotland were the 'product of centuries of extensive pastoral management by peasant farmers' (Holl and Smith, 2007, p.46). Timber was essential to people's way of life, even more so in the countryside. It was their main building material not only for the structural support

[19] Third time offenders of this ban could be sentenced to death penalty (Smout, 2003).

of their houses but also for their ceilings, flooring, furniture, fencing, and farming and household tools, as well as their firewood needs for cooking and heating. Furthermore, access to standing woodlands for sheltering and grazing stock was crucial for winter survival (Smout, 2003).

Overall, the loss of woodlands observed by the Parliament in the 16th century referred to the state of the Scottish Lowlands. However, Scotland's timber calamity was by no means an exception. Due to high demands and exploitation of timber for shipbuilding in the context of expanding mercantilist trade, many European nations rapidly faced an alarming deficit of timber supply (Merchant, 1989). In the 17th century, Scottish imports of timber diminished – as, for instance, Norway prohibited the export of oak to curb the dwindling of its native oak woodlands (Mills and Crone, 2012). The brutal loss of European forests during this period was the result of careless clearings combined with prevented regeneration – which was caused by urbanization, tillage, and intense grazing. As Brown (1997, p.138) notes, 'it is easier to prevent regeneration than to fell a forest, and it need not be done purposively'.

Here, it is important to highlight that the timber scarcity that grew in Scotland through the 16th and 17th centuries referred to 'large straight timbers necessary for major construction projects or shipbuilding' (Oosthoek, 2013, p.26) – thus it was a concern for the elite. Commoners were much less affected by this sort of shortage since their needs were met with small wood and standing woodlands. However, as demand for timber continued to increase in the Lowlands and imports became less available, the remaining semi-natural woodlands of the Highlands became more valuable than ever (Smout, 2003). Gradually, restrictions on commoners' use of and access to the woodlands became more and more restrictive, particularly from the mid-18th century onward – during the so-called Improvement Era.

> Highland houses of farmers and crofters [were] rarely made of stone in the seventeenth and eighteenth centuries (…). The population was not static; the many uncertainties of life did not encourage permanency. It was only when the Improvement movement started to permeate the Highlands in the late eighteenth century that lairds and their advisers pushed the use of stone (…) In Lochaber, the Duke of Gordon was advised in 1767, "if the tenants were obliged by their tacks to build stone houses would preserve the wood & be much for their advantage and profit!" (…) "Profit" was becoming a key word as market forces began to cast aside traditional Highland values (Smout, 2003, p.95).

Landowners led the improvement movement during the Enlightenment period. The concept of improvement was 'associated with a whole new attitude to natural resources' (Smout, 2000, p.20),

in which nature was a messy mass of unrealised opportunities waiting to be improved by mankind. According to this view, a landscape that was not improved to serve human needs was considered a 'wasteland' (Oosthoek, 2013). The crofters who lived in these 'wild' or 'unimproved' areas did not own their land, and, therefore, their way of life was vulnerable to landowners' changes of heart.

The ideal of 'improvement[20]' brought several changes to ecological and sociocultural landscapes, driven by the powerful gears of industrialisation, urbanisation, and the agricultural revolution (Devine, 2018). Changes to rural areas included restrictions on timber access, the switch from a cattle-based to a sheep-based economy[21], the enclosure of hills, and the creation of large sports reserves. In this context, many tenants were forcibly evicted by landowners in a historical period known as the Age of Clearances (from 1750 to 1860) – which is considered by some authors to be 'the forerunner of colonization and displacement, carried out on a global scale by the UK government for 100 years.' (Ritchie and Haggith, 2012, p.217). This period has also been seen as the primary cause of the structural poverty that has existed in the Scottish Highlands since then (Tindley, 2021).

These changes were met with substantial resistance, manifested either in the form of legal actions or through community protest. It was a period marked by many years of negotiation, social unrest, and conflict between landowners and communities distressed by excessive rents, a lack of land rights, and forced eviction (Hunter, 1995, 2010; Symonds, 1999). These events culminated in significant developments in the Scottish political landscape in the 1880s. One example is the formation of the Highland Land League, which 'aspired to create a better future for those Highlanders who had survived the clearances' (Hunter, 1995, p.65). The Land League employed several forms of protest strategies, including rent strikes and land raids, and it became notorious for its Gaelic slogan 'Is treasa tuath na tighearna', which translates as 'The people are mightier than a lord'. In 1885, the Land League was successful in getting Members of Parliament elected which led to the passing of the Crofters Holdings (Scotland) Act 1886 – which granted crofters security of tenure.

[20] Since then, the idea of 'improvement' has been promoted under a variety of labels (e.g., development, efficiency, progress, growth), all of which strive to produce/accumulate greater profits and justify increasing extraction from nature and labour.

[21] Small stocks of cattle and goat supported the livelihood of crofters with dairy products and manure for their crops. Extensive sheep farms, on the other hand, where created to supply the increasing industrial demand for wool (Smout, 2003; Devine, 2018).

These developments are important as the conventional literature, with a few exceptions, is concerned with structural conditions and downplays the transformative role of communities (Dussel, 2003; Hunter, 1995). Yet, there is substantial evidence to support the claim that the course of history has consistently been shaped by a complex interaction of diverse actors and factors, frequently characterised by conflicting dynamics such as top-down and bottom-up influences (Hunter, 1995, 2010; Ritchie and Haggith, 2012). From this perspective, it is inaccurate to portray marginalised communities as passive entities completely devoid of agency (Smith, 2012). Instead, it should be recognised that communities play a pivotal role as central actors of both resistance and creation – as such, they are active agents shaping and reshaping reality and creating history (Dussel, 2003; Smith, 2012). It is, however, crucial to acknowledge the presence of historically contingent legal, military, and/or financial mechanisms that uphold the dominance of certain groups over others (Anderson, 2006; Smith, 2012; Fanon, 1991; Mohanty, 2003). The success of bottom-up strategies frequently relies on the efficient identification and dismantling of these mechanisms.

Despite communities' resistance during the Age of Clearances, 'the Highlands were cleared of most of the people that had lived there and managed the land, and replaced with sheep and deer' (Holl and Smith, 2007, p.45). The new regime of meat-based, industrial-capitalist agriculture required fewer labourers than previous grain-based systems (Foster and Clark, 2020). Thus, landowners started to move away from 'multiple tenancies – involving communal farming arrangements (…) towards single-tenant farms' (Combe, Glass, and Tindley, 2020, p.51). Wool production, for instance, could only be profitable on a large scale, leading small crofts to be converted into large sheep farms (Hoffman, 2013). At the same time, towns were being transformed in the Scottish Lowlands with new roads, railways, and steamships – at the dawn of the Industrial Revolution. Thus, it required a large workforce (Smout, 2003; Holl and Smith, 2007; Mackinnon, 2017). As accommodation went with the job in the agricultural sector, '[t]hose unable to gain a hire at fairs had to move on' (Devine, 2018, p.167), overcrowding the cities' slum districts with migrants from the countryside. Above all, the clearance of people from the land destroyed traditional Highland culture, community, and way of living, forcing crofters to become wagelaborers in industrial cities like Glasgow or overseas (McIntosh, Wightman and Morgan, 1994).

> Clusters of houses, where several families jointly farmed the surrounding land, with access to common hill grazing, had

> become by the 1850s, either single tenancy small holdings or large sheep farms. By then, the influences of the Industrial Revolution and the ascendancy of capitalism were beginning to grip the heart of Scottish life, with far-reaching consequences for both people and woods (Smout, 2003, p.83).

Therefore, the empty, treeless Highlands 'has been made the way it is by people maltreating the land, by removing human communities.' (Hunter *in* Warren, 2001, p. 7-8). This scenery is largely the result of the 'improvement' that transformed the 'wastelands' of the Highlands into a productive business – mostly timber, wool, meat production, and leisure facilities. The peasants that were allowed to remain in the rural areas were granted only temporary leases on the land. These leases were allocated on the basis of productivity, which meant that peasants were compelled to compete for land to survive by continually devising ways to intensify production.

> This put peasants in direct competition with one another, with their own kin and neighbours, transforming what had been a system of co-operation into one organised around desperate antagonism. (…) It meant that, for the first time, people's lives were governed by the imperatives of intensifying productivity and maximising output. No longer was production about satisfying needs, no longer about local sufficiency; instead, it was organised around profit. (Hickel, 2020, p.56).

Paradoxically, tenant farmers paid for the use of the land, and the rent value rose as a result of whatever improvements they made. 'In other words, if they invested in the means to enhance the productivity of the crops, such as enriching the soil, their rents increased, eliminating any additional earnings they generated.' (Foster and Clark, 2020, p.67). Hence, landowners were the most (or only) benefited by improvements, reaping financial rewards by increasing the value of their property and the rent they could charge.

Timber production was also seen as a way of improving land (making it productive). Between the 17th and 18th centuries, interest in tree planting and forestry strengthened in Scotland; native pinewood began to be increasingly exploited for the construction sector, and landowners started to explore exotic species for profit and as ornament (Smout, 2003; Oosthoek, 2013). This led to the introduction of new species of trees in Britain – including Sitka spruce and Douglas fir[22]

[22] David Douglas (1799-1834) alone introduced over 240 new species of plants into British Islands (Smout, 2003).

– and ‘the development of plantation techniques for establishing new woodlands on bare land even to the extent of completely replacing native woods by new introductions’ (Smout, 2003, p.129).

As timber prices were high and labour costs were low, Scottish landowners promoted extensive tree planting on their states aiming to increase revenue. However, already in the mid-19th century, the scenery started to shift for the Scottish timber industry. After the abolition of duties on timber imports in 1866, national production could no longer compete with cheap timber imports from the British Empire, Russia, and Scandinavia. As a result, many landowners converted their woodlands into sporting estates – game had become more rentable than timber production (Oosthoek, 2013).

On the onset of the 20th century, Scotland had reached it maximum low of 5% woodland cover (see Figure 2.4.1.) which were soon to be further ravaged during World War I (1914 – 1918). The war required a greater output of wood, which (under the circumstances) could no longer come from overseas. Therefore, an emergency Timber Supplies Department had to be set up by the government. Once the war ended, it was irrefutable that the creation of a national forest policy was overdue. The government realised that there is no ‘short-term fix for a product that takes more than

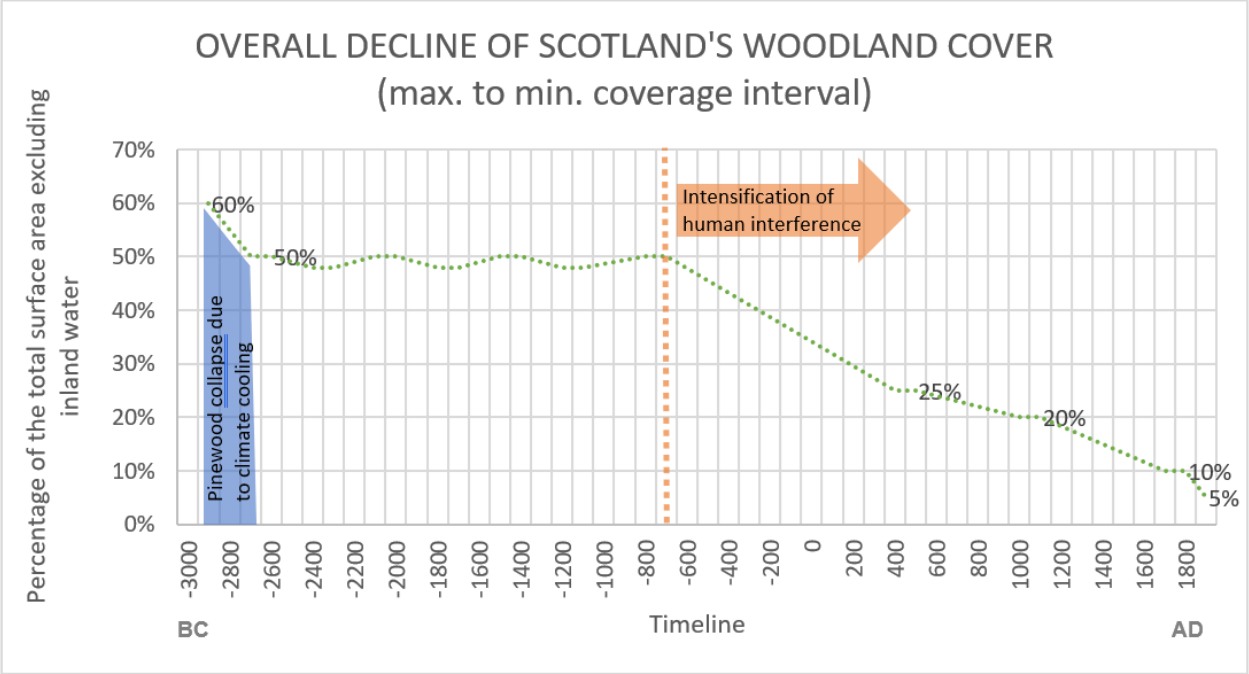

Figure 2.4.1.: Data was compiled from Smout (2003); Oosthoek (2013), and Forestry Statistics (2019). The initial decline of 10% was estimated considering that pinewood composed approximately one fourth of total woodland cover and suffered a 73% mortality rate (according to Moir, 2008). The fluctuation during the Bronze Age (2500–700 BC) represents a balance between loss and regeneration. Please note that this graphic illustrates an overall estimation, deforestation did not occur homogeneously throughout the territory.

half a century to grow' (Smout, 2003, p.160). Thus, forestry was no longer seen as the business of private individuals but a concern of national security. The Forestry Commission (FC) was then promptly established in 1919 as a semi-autonomous government agency (Raum and Potter, 2015).

2.4.2. A century of commercial plantations

The preceding subsection outlined Scotland's history of forest loss and land grabs. This subsection examines Scotland's afforestation efforts throughout the last century, highlighting the disparity between increased overall forest cover and a stagnant share of native woodlands.

The first decades of the Forestry Commission (FC) were solely driven by the goal of establishing a strategic timber reserve for times of war. To implement its afforestation programme, the FC acquired land on a large scale, mostly in the Scottish uplands where land was cheaper – as its once fertile soil was now known as a 'wet desert'. Initially, the most planted species in Scotland was the Scots pine because it is Britain's only native conifer and, therefore, it was believed it would grow best in the local conditions. However, Scots pine turned out to not do well on the wet peat soils the FC had acquired. Therefore, substantial research was performed to make upland afforestation faster and cheaper (Smout, 2003; Oosthoek, 2013).

World War II (1939– 945) broke out before the strategic plantations had reached maturity; therefore, another devastating loss of older forests occurred in Britain, particularly in Scotland (Oosthoek, 2013). In response to a new national timber crisis, the government enacted a series of Forestry Acts in which, once again, timber production was the priority. This time, however, the national afforestation programme included privately owned land – through grant schemes – in addition to FC acquired land (Raum and Potter, 2015). Prior to government incentives, the private sector had little interest in planting trees; but, as incentives became available, the private sector's interest increased. 'In 1973, for the first time, more new planting was private than state and, during the 1990s, state planting dwindled rapidly, hitting zero in 2000 and remaining low since' (Warren, 2001, p.74). Other changes in the national afforestation strategy included the development of new cultivation techniques, such as modern ploughing and chemical fertilisers – which allowed for a larger scale of planting. Furthermore, Sitka spruce 'became the bread-and-butter tree' (Smout, 2003, p.167) in Scottish afforestation as experiments had shown that spruce was better suited for wet peat soils and the windy conditions of the west coast (Oosthoek, 2013; Samuel, Fletcher, and

Lines, 2007). Thus, Sitka spruce was extensively planted in straight-edged (to reduce fencing costs) and even-aged monocultures (to facilitate management).

In 1957, the purpose of the FC afforestation programme was shaken by the Zuckerman report. This report argued that there was no longer a need for a strategic timber supply since the advent of nuclear warfare. However, even though the report showed the UK's driving motivation for afforestation to be pointless, it highlighted the importance of the commercial and social functions of forestry. As a result, the FC began to emphasise forestry's economic and social benefits, such as reduced reliance on imported wood, job creation, and recreation. Nevertheless, its primary objective remained timber production, with non-market benefits considered secondary (Oosthoek, 2013; Smout, 2003; Raum and Potter, 2015).

A major challenge faced by the FC in its afforestation endeavours in mid-20th century in the Scottish Highlands was the lack of workforce – since the region had been cleared and continued to suffer from depopulation. To attract workers to the region, the government decided to establish forestry villages, which were part of a broader programme of rural development and repopulation. Some forestry villages included not only houses but shops, post offices, and community centres (Wonders, 1990; Foot, 2010). In the 50's and 60's, the average employment intensity in the uplands state forests was one job per 112 ha (Mather, 1971); however, the increasing mechanisation of afforestation – with the introduction of petrol-driven chainsaws, brush cutters, and winches – reduced employment (Wonders, 1990). Gradually, forestry work was transformed by mechanisation and contract culture, which reduced rural employment and aggravated the alienation of local communities from their forests (Calvert, 2009; Slee, 2006). Simultaneously, mechanisation reduced labour costs and enabled the intensification of wood extraction.

> Take the chainsaw, for instance. It's a remarkable invention that enables loggers to fell trees, say, ten times faster than they are able to do by hand. But logging companies equipped with chainsaws don't let their workers finish the job early and take the rest of the day off. They get them to cut down ten times as many trees as before. Lashed to the growth imperative, technology is used not to do the same amount of stuff in less time, but rather to do *more stuff in the same amount of time*. (Hickel, 2020, p.155).

As mechanisation made forestry more profitable, the government subsidised the development of a domestic industry of forest products, which reinforced the need for high-yielding monocultures, transforming forests into 'wood factories' (Oosthoek, 2013, p.84). While mechanisation of felling

and wood processing reduced employment, the development of a domestic wood-based industry – such as the Scottish Pulp and Paper Mills established at Fort William in 1966 – brought new forms of employment to the Scottish forestry sector. Overall, not only did forestry generate as much as ten times more employment per unit area than hill farming, but it also had a greater potential for secondary employment in manufacturing (Mather, 1971).

This monofunctional timber-production style of forestry was targeted by significant criticism and public pressure since 1930, mostly due to an increasing interest in recreational uses of forests – which led to the creation of the first National Parks, the approval of the Access to the Countryside Act, and the establishment of the Nature Conservancy (today's Scottish Natural Heritage) in 1949. However, the monofunctional forestry paradigm (focused on timber production) prevailed until the 1970s, when it finally started to shift to a multifunctional forestry paradigm – in which forests are considered to have multiple productive and social functions (Smout, 2003; Raum and Potter, 2015). Since forests are a long-term resource, it is important to note that influences 'such as economics, markets, politics, and public values, change far faster than forests can' (Warren, 2001, p.68).

Growing pressure from environmental and recreational lobbies and the influence of international organisations such as the United Nations (UN) were fundamental in reframing forestry practises – in a way that forests' social and ecological dimensions were better acknowledged. In Scotland, this resulted in significant changes in forestry policy during the 1980s, allegedly aiming to conciliate the dichotomy between commercial interests and environmental and landscape concerns in the forestry sector.

> For much of the twentieth century, Scottish forestry had a straightforwardly dual character: state and private. From the late 1980s onwards, however, increasing amounts of land have passed into social ownership – conservation organisations and community bodies – and this has introduced a creative and dynamic third sector into the forestry scene. (Warren, 2001, p.77).

Policy changes included the 1985 Wildlife and Countryside (Amendment) Act, which instructed the FC to balance timber production with environmental benefits, and the Policy for Broadleaved Woodlands, which protected broadleaves from being converted into conifer plantations and launched a broadleaf planting grant (Foot, 2010; Oosthoek, 2013; Raum and Potter, 2015). In addition to FC's new grant schemes, other sources of funding – such as the National Lottery, trusts,

and some businesses – started to sponsor public-interest initiatives in conservation and recreation (Smout, 2003).

Before the broadleaf policy, less than 2% of total planting were broadleaves; after the grant scheme, this percentage steadily increased until reaching 80% of new woodland planted in 2010 (Oosthoek, 2013). However, this trend was discontinued, and the total volume of coniferous stock growing in Scotland in 2012 was 226.9 million m^3, compared to only 36.8 million m^3 of broadleaves (Forestry Statistics, 2019). The overall woodland increase in Scotland during the 100 years of FC is illustrated by the graph bellow – Fig.2.4.2. (a). The differentiation of broadleaves from the total reveals the overwhelming predominance of conifers.

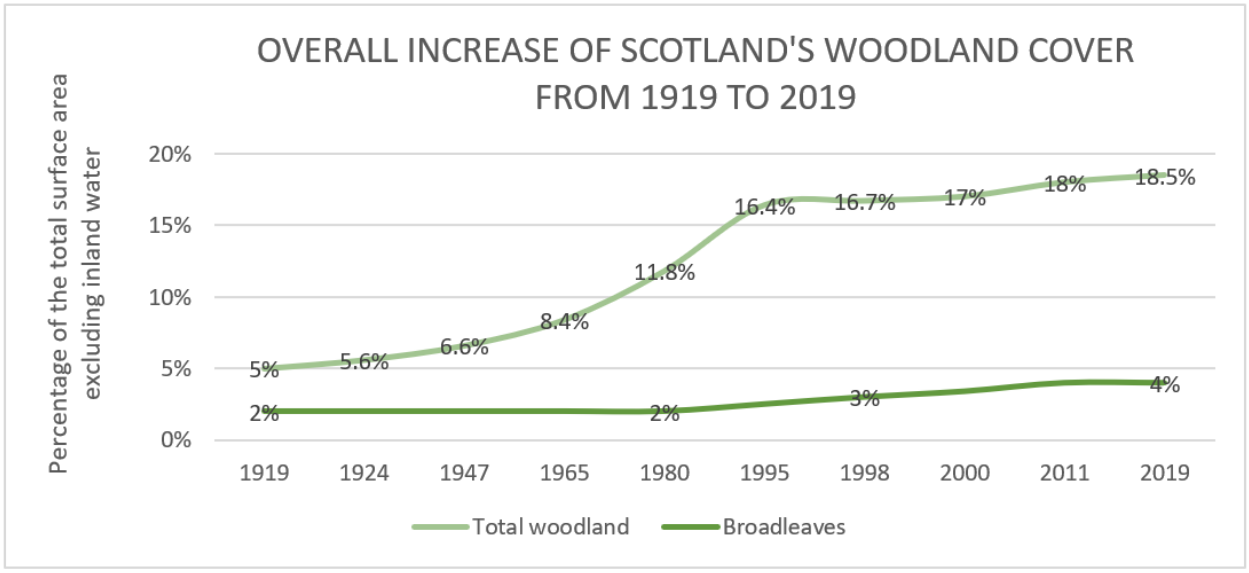

Figure 2.4.2. (a): Data was compiled from Forestry Statistics (2019); Smout (2003), Oosthoek (2013), and Patterson et al. (2014). It shows that even though woodland cover has more than doubled, most woodland established over the century were conifer plantations.

Today, 'conifers account for around one half (51%) of the UK woodland area, although this proportion varies from around one quarter (26%) in England to around three quarters (74%) in Scotland' (Forestry Statistics, 2019, p.11). Furthermore, a single species of conifer (Sitka spruce) accounts for 43% of all Scottish woodlands. Broadleaves account for 26% of the woodlands, which represent only 4% of the Scottish territory. Scots pinewood (13%) and birchwood (11%) compose most of Scotland's native woodlands, which in total comprise ≈ 33% of woodland cover. The following graphs illustrate the composition of Scottish woodlands today by species, Fig. 2.4.2. (b), and age, Fig. 2.4.2. (c).

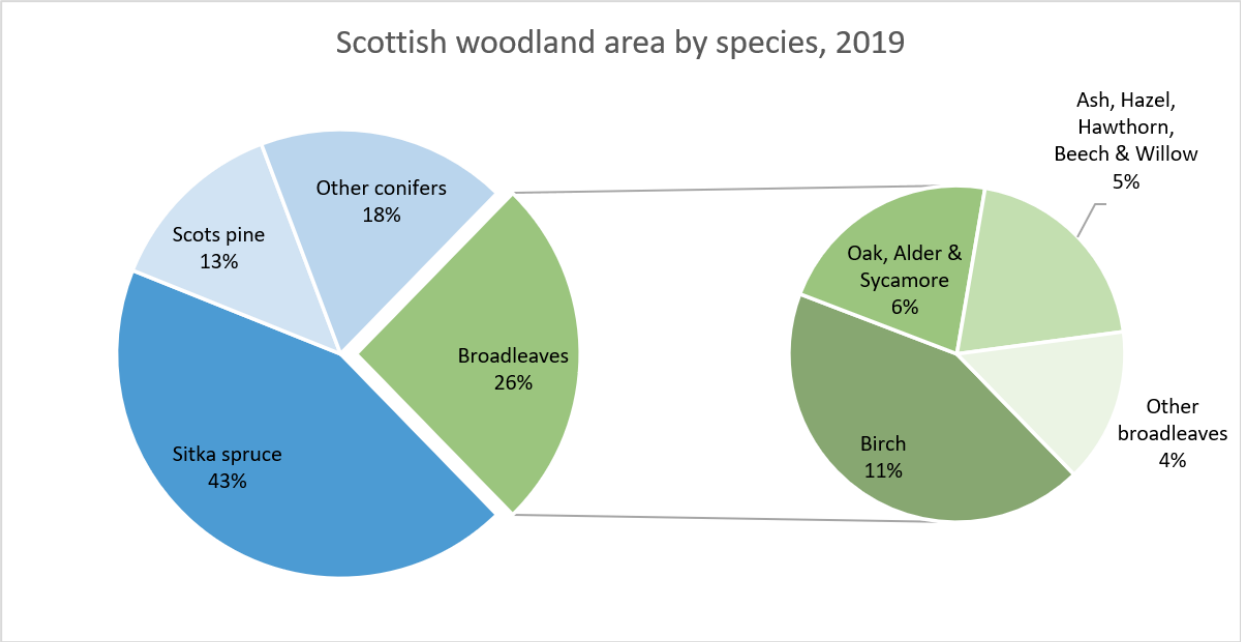

Figure 2.4.2. (b): This graph illustrates the composition of Scotland's woodland cover by species in 2019. 'Other conifers' are mainly composed of Lodgepole pine, Larches, Norway spruce, and Douglas fir. Oak, Alder, and Sycamore comprise 6% of broadleaves (being 2% each) and Ash, Hazel, Hawthorn, Beech, and Willow comprise 5% of broadleaves (being 1% each). Data source: Forestry Statistics (2019).

Figure 2.4.2. (c): This graph illustrates the age profile of Scotland's woodland cover in 2019, differentiating conifers and broadleaves. Data source: Forestry Statistics (2019).

2.4.3. The community turn

The previous subsections examined Scotland's overall forest loss, and its gains since the establishment of the Forestry Commission (FC). This subsection focuses on recent social movements and policy changes in the forestry sector in Scotland, with a particular emphasis on community involvement.

The increasing recognition of forests' environmental and social benefits (in the 1980s) was accompanied by 'an awakening interest in community woods' (Smout, 2003, p.188), which grew alongside the land reform movement aiming to address 'unequal distribution of power and land ownership' (Calvert, 2009, p.6). At the same time (as discussed in subsection 2.2.2.), neoliberal influences were also promoting 'community involvement' as a way of reducing the state's responsibility for social and environmental care (MacLeod and Emejulu, 2014; Büscher and Whande, 2007). These social frictions between community struggles for power and the neoliberal erosion of the welfare state have shaped the contemporary turn towards community forestry.

The decentralisation of forest governance in Scotland has evolved through a 'push-me, pull-you' process (Ritchie and Haggith, 2012), which was closely linked to the larger land reform movement. Land reform has a long history of contention in Scotland. Back in the 1870s, studies revealed that Scotland had one of the highest concentrations of large-scale private landownership in Europe (Combe, Glass, and Tindley, 2020). At that time, only 3.7 per cent of the population 'owned any land at all, urban or rural. Fully 96.3 per cent of the population were tenants of one sort or another' (Wightman, 2010, p.205).

Land reform is largely a legislative struggle. By defining who has rights and access to resources, the law plays a pivotal role in structuring socioeconomic relations (Findlay, 2017; Combe, 2016; Wightman, 2010). Under capitalism, the law marginalised most people through exclusionary legal regulations. Increasing difficulties emerged in Scotland throughout the twentieth century as a result of highly concentrated private landownership, 'with absentee landlords who obstructed attempts at community and regional development and managed their land against the broader community interest' (Lawrence, 2022, p.509). As pointed out by Ritchie and Haggith (2012, p.214):

> Planning and decisions on forestry were made by people living far away from the forests and by landowners from a different social and economic class than the rural population most affected by the decisions. It can be argued that the forest

> landscape we see today has been imposed upon rural communities rather than developed from within them.

Scottish people became increasingly aware that landowners exercise decisive power over land uses and that land uses have an impact on ecosystems and the lives of those who live on them (Combe, 2016). Thus, they became increasingly concerned about equity issues arising from Scotland's concentration of land and the government's grants and tax breaks to private landowners (Ritchie and Haggith, 2012). As a result, grassroots resistance to exclusionist property regimes began to challenge the law to return it 'to a role as a communal resource' (Findlay, 2017, p.viii).

The land reform debate first rose to prominence in Scotland in the 1880s, owing to populist campaigns based on the argument of restitution. The debate faded out after 1945, but it was reignited in the 1960s with exciting new ideas, such as community ownership, which gained widespread popular support and took off in the late 1980s (Combe, Glass, and Tindley, 2020; Bryden and Geisler, 2007). In 1987, the first Scottish Community Woodland Group (CWG) was established with the acquisition of the Wooplaw Forest. 'Things started changing as one community after another took matters into their own hands and, often against formidable odds, bought the land they lived on or bought woodlands that were significant to them.' (Lawrence, 2022, p.507).

> Grassroots efforts create new possibilities, proving that 'impossible' things can really be achieved, thereby feeding the collective imagination of the country, building confidence in particular new forms of change and generating political will to create conditions that enable such changes to be replicated. (Ritchie and Haggith, 2012, p.212).

The campaign for community ownership began as a grassroots movement; however, it has developed as a mix of 'bottom-up' and 'top-down' influences (Lawrence, 2022; Ritchie and Haggith, 2012). The 1997 referendum – which devolved management power to national governments – substantially benefited community claims for land reform and greater political participation. Following the devolution, Scotland's land reform began to unfold with an emphasis on community land ownership. The Land Reform Policy Group (LRPG), established by the Scottish Office in 1997, concluded that the system of land ownership in Scotland inhibited development in rural communities and neglected the country's natural heritage. Ultimately, this evolved into the primary objective of the Scottish land reform policy: 'to remove the land-based barriers to the sustainable development of rural communities' (Thomson et al., 2016, p.7).

The legal basis of Scotland's land reform has been drawn by three main acts: the Land Reform Act (2003), the Community Empowerment Act (2015), and the Land Reform Act (2016) – this later was accompanied by the Land Rights and Responsibilities Statement and the establishment of the Scottish Land Commission. These acts have granted communities the right to acquire land through three mechanisms: (1) Community Right to Buy private land if and when it comes on the market; (2) Community Asset Transfer of land from public bodies; and, more recently, (3) forced sale via (a) Community right to buy abandoned, neglected or detrimental land, or (b) the Right to Buy Land to Further Sustainable Development (Combe, Glass, and Tindley, 2020). These rights were a great achievement for Scottish communities; as Bryden and Geisler (2007, p.25) have argued, a community's right to buy 'is fundamentally a right ''to be'' and to secure a place-based arena of common identity and interests'.

Despite legislative progress, land redistribution in Scotland has been slow. Today, 'the government believes 57% of rural land is in private hands, with about 12.5% owned by public bodies, 3% under community ownership and about 2.5% is owned by charities and other third sector organisations' (Picken and Nicolson, 2019). Of the around 204 Community Woodland Groups (CWGs) in Scotland, '72 groups own their woodlands, 19 lease their woodlands and 113 manage them in partnership with the owner' (Lawrence and Ambrose-Oji, 2013, p.3). According to the most recent estimate, 191,261 hectares of land are under community ownership (about 2.4 percent of total land), which is mainly concentrated in the Highlands and Western Isles (Lawrence, 2022; Scottish Government, 2021).

Therefore, Scotland's inequitable land allocation remains substantially unaltered. 'Scotland has the most concentrated pattern of private forest ownership in Europe' (Lawrence, 2022, p.511). One of the reasons for this lagging implementation might be that legal procedures are not tailored to communities' capabilities. In fact, a recently published report reveals that communities are often expected to demonstrate their competence to manage land in ways that are not required from private purchasers:

> Scotland has decades of experience with community acquisition and much of that experience has been difficult. Communities have had to find large sums of money, navigate complex requirements, demonstrate their competence to manage business and land in ways that are not required of private purchasers. Overall, the experience of asset acquisition can be described as exhausting, traumatic, and occasionally thrilling when successful. Many describe

> situations where they have not been successful. (Lawrence and McGhee, 2021, p.46).

The National Forest Land Scheme promoted by the FC Scotland 'ran for ten years and transferred a total of almost 7,000 ha, of which only 4,000 ha were ultimately owned by communities (…) during the same period, 50,000 ha of the national forest estate were sold to the private sector.' (Lawrence, 2022, p.514). The continuation of subsidy and taxation arrangements that benefit the super-rich [23] – thereby undermining efforts to redistribute land – is another factor contributing to Scotland's substantially unaltered pattern of land concentration. Thus, as Bryden and Geisler (2007, p.26) argue, 'devolution needs to go beyond property rights to tackle other social, economic and institutional issues — laws on taxation and inheritance, services, community development, equitable representation, and the like'.

It should, however, also be taken into consideration that community right to force sale have only recently been brought into the law and might help to speed up the process. The Community Empowerment Act 2015 grants communities the right to buy land, even when there is no willing seller, when in the opinion of ministers: '(a) it is wholly or mainly abandoned or neglected, or (b) the use or management of the land is such that it results in or causes harm, directly or indirectly, to the environmental wellbeing of a relevant community'. In addition, forced sales can be pursued by communities through the right to buy land for further sustainable development, which was introduced by the Land Reform Act 2016 (Combe, Glass, and Tindley, 2020). In this case, the sale can be forced if the following conditions are met:

> (a) the transfer of land is likely to further the achievement of sustainable development in relation to the land, (b) the transfer of land is in the public interest, (c) the transfer of land (i) is likely to result in significant benefit to the relevant community to which the application relates, and (ii) is the only practicable, or the most practicable, way of achieving that significant benefit, and (d) not granting consent to the transfer of land is likely to result in harm to that community.

It can, therefore, be argued that there are two common principles of care behind the legal support for compulsory sales: (1) nonmaleficence (to do no harm), which is observed in the right to buy neglected land; and (2) beneficence (to do good), which is observed in the right to buy land to further sustainable development. Thus, the formulation of these rights to force sale demonstrates

[23] Linklater, M.; Rosie, G. (2019) 'Super-rich buying up Scotland's forests'. The Times, August 01, 2019. Available at: https://www.thetimes.co.uk/article/super-rich-buying-up-scotlands-forests-67knqcrff (Accessed on 19/07/2021).

that Scotland's land reform focuses more on shaping a present of good governance and development than on historical reparation. Yet, neither 'harm' nor 'sustainable development' are properly defined under the law. These are rather rhetorical notions that leave room for legal loopholes and political manoeuvring. Loosely, 'harm' refers to environmental degradation and adverse effects on the lives of persons in the community, and 'sustainable development' refers to 'development that meets the needs of the present without compromising the ability of future generations to meet their own needs' (as defined by the 1987 Brundtland Report). As a result, the criteria for a forced sale are quite open to interpretation. Once more, communities must convince ministers of their capacity to manage land. In fact, they must persuade them that the land would be better cared for under their stewardship, either by preventing harm or increasing wellness.

In this context, an organisation that has greatly contributed to advocating for CWGs interests – including land reform – is the Community Woodlands Association (CWA). The CWA was founded in 2003, the same year that the Land Reform Act was enacted, as a coalition of several Scottish CWGs and their representative body in national political debates. CWA's mission is to assist CWGs to achieve their aspirations by providing support through consultancy and training, by networking CWGs through conferences, seminars, and newsletters, and by promoting and representing Scottish CWGs within the national political arena and to the wider world.

Besides national grassroots pressure, land reform and forestry decentralisation suffered influence from international debates. The 1992 Rio Summit, for instance, promoted community participation in forest governance – in addition to formally launching the demand for carbon emission reductions, mainstreaming the notion of 'sustainable development', and advancing a new paradigm for forest management based on the principles of Sustainable Forest Management (SFM) (Foot, 2010; Raum and Potter, 2015; Warren, 2001; Raymond et al., 2009). As a result of the Rio Summit, the UK government signed up to *Agenda 21*, acknowledging the full range of non-timber forest benefits and committing to community empowerment (Ritchie and Haggith, 2012).

In 1996, the UK Forestry Commission commissioned the study 'The Scope for Community Participation in Forest Management' and began establishing co-management agreements with local communities for some state forests (Ritchie and Haggith, 2012). The FC recognised that assisting community forestry could help improve its image – which led to the launch of the Central Scotland Forest Initiative, a reforestation initiative between Glasgow and Edinburgh (Oosthoek, 2013; Calvert, 2009). However, the FC was hesitant to include community forestry in its policies because

its vision for community forests ‘had a different level of community engagement than the community woodlands created in the grassroots community movement’ (Oosthoek, 2013, p.161). Rather than enabling the communities to actively engage in forest ownership and management, the FC's vision for community forestry was to provide recreational amenities close to towns for public enjoyment (Oosthoek, 2013; Crabtree et al., 1994). That is, while not challenging the roots of exploitative relationships, it acknowledged the need to supplement the ‘top-down’ preservationist management approach with ‘a more bottom-up, inclusive and participatory sustainable use narrative.’ (Büscher and Whande, 2007, p.26).

The concept of ‘community forestry’ in Scotland has evolved to be substantially different from that in the rest of the UK (Lawrence, 2022). Following the 1997 devolution, national Forestry Commission (FC) departments were created. This meant that each country – Scotland, England, Wales, and Northern Ireland – developed its own national forestry strategy, with FC Great Britain retaining certain central duties (Lawrence et al., 2009; Raum, 2017). The FC Scotland (FCS) published its first forestry strategy in November 2000 – which was shortly revised in 2006. 'Community development' was already one of the themes highlighted in this strategy.

Initially, the emphasis in Scotland was on partnerships between communities and Forestry Commission-managed public forests. However, a review conducted by the Organisation for Economic Co-operation and Development in 2008 ‘concluded that Scottish policy was disaggregated, centralised, and with little genuine community empowerment’ (Lawrence, 2022, p.512.). As a result of popular pressure for more genuine empowerment, community ownership becomes an important component of the Scottish concept of community empowerment. Over time, community forestry came to be defined in Scotland ‘by community ownership of woodlands, or community woodland decision-making’ (Lawrence et al., 2009, p.286-287). This definition is, however, only descriptive of communities in the Highlands and Western Isles. The model of community forestry in the Scottish Lowlands is rather similar to England’s model of urban regeneration and recreation – where land is owned by the public sector (Lawrence and McGhee, 2021). This divergence between the Highland and Lowland models of community forestry in Scotland is attributed to regional differences, including ‘people's motivations to get involved in forestry and the contribution of local forests to local livelihoods’ (Lawrence et al., 2009, p.288).

Communities engaging in woodland management across Scotland are widely diverse, ‘some providing a sense of place and amenity for the group, others becoming the economic engine

for rural communities' (Lawrence, 2022, p.519). Among this diverse range of communities and woodland-related projects, Scotland's Highland model of community-owned woodlands stands apart from the rest – not only at a national level, but also at an international level. The reason for this is that Scottish community landownership differs greatly from communal land and traditional commons found throughout continental Europe (Lawrence et al., 2020). In Scotland, land can be owned by communities as private property through a company or charitable organisation, and Community Woodland Groups (CWGs) often operate as businesses (Ambrose-Oji, Lawrence, and Stewart, 2015; Worrell et al., 2018).

Although somewhat surprising, the confluence of third-sector organisations and business practises is not an exceptional occurrence. Management studies have paid greater attention to the phenomenon of non-profit organisations increasingly becoming business-like (Suykens, Verschuere, and De Rynck, 2016; Calvo and Morales, 2016; Claeyé and Jackson, 2012). These studies have concentrated on three issues: (a) the causes of non-profits becoming more business-like, (b) the organisational structures and procedures in non-profits running more like businesses, and (c) the effects of becoming more business-like (Maier, Meyer, and Steinbereithner, 2016). Dart (2004) points out that rather than a homogeneous phenomenon, the processes by which non-profits become more business-like can have distinct meanings – which can relate to at least four categories: 'as goals of programs, as organization of either program service delivery or organizational management, and as organizational rhetoric' (Dart, 2004, p. 290). The following quote exemplifies the complexities of the economic functioning of community forest enterprises worldwide:

> Communities have no interest in destroying the forest resources that they live off. Unlike capitalist businesses that can easily withdraw their capital and reinvest it elsewhere, and unlike illegal loggers and illegal pioneer farmers who can push further into the forest for as long as it exists, communities have increasing difficulty migrating and finding other community forests to settle in. Logically, it therefore seems completely possible to have community forests that preserve the forest whilst being productive. However, it will be difficult to achieve the levels of profit that we often see for industrial logging companies, for mining companies or for agroindustrial companies that set up in forest areas. The 'economic' success, the level of return on investment that they achieve is generally a simple reflection of the pillaging of shared resources and the dispossession of forest dwellers. (Merlet, 2015, p.18).

Many questions remain unanswered regarding the use of business-like means for non-profit ends. On the one hand, business-like approaches may allow non-profit organisations to become more financially secure and free from funders' demands. On the other hand, business-like approaches risk non-profits becoming more concerned with income generation and organisational survival than with delivering on their social/environmental mission.

CWGs are a relatively new phenomenon in Scotland, with high expectations for potential outcomes and little research undertaken to date. Research conducted so far have focused on the emergence of CWGs in Scotland (Crabtree et al., 1994; Ritchie and Haggith, 2012; Lawrence, 2022), their characterisation/organisation as businesses (Ambrose-Oji, Lawrence, and Stewart, 2015; Worrell et al., 2018; Lawrence et al., 2020), and on their social and environmental outcomes (Dunn, Ambrose-Oji, and O'Brien, 2021; Lawrence and Ambrose-Oji, 2015). Although these studies have contributed to the growing body of knowledge about Scottish CWGs, they provide scant evidence that a genuine transfer of power has taken place or that CWGs have significantly helped in the transition to sustainability. Furthermore, some of these studies are unclear about their research methodology or data sources, which jeopardises their credibility. Those studies that have specified their methods were based on data collected through semi-structured interviews or provided by governmental agencies, indicating a lack of more in-depth data collection techniques, such as direct observations. Overall, policymakers have encouraged further research on the topic because there is still little evidence (Lawrence and Ambrose-Oji, 2013; Ambrose-Oji, Lawrence, and Stewart, 2015) and knowledge production has been limited to a small number of authors.

2.5. Summary

This chapter has situated the present study within political, theoretical, and historical debates on the need to transition away from the capitalist system towards a healthier social metabolism. By focusing on the role of communities in this context, this study has been informed about the variety of formats community-led projects can take and how these may be influenced by distinct socio-political agendas and structures. In addition, the literature has made this study aware that community-led projects do not always correspond to preconceived notions of 'community' or meet expectations (in terms of social and environmental benefits).

This analysis of the literature has produced an ecohistorical materialist account of the events that led to the emergence of Community Woodland Groups (CWGs) in Scotland. In doing so, it

has highlighted how Scottish CWGs are part of a long history of grassroots struggles yet have more recently developed as a mix of 'bottom-up' and 'top-down' influences (Lawrence, 2022; Ritchie and Haggith, 2012). However, because CWGs are a relatively new phenomenon in Scotland, there is limited evidence of the changes they have brought to the Scottish forestry sector. Hence, there is little knowledge about the role CWGs play in shaping Scotland's socio-ecological transformation.

There is a need for research that adopts a transformative perspective in order to further the understanding of communities' aspirations and the resources they need to effectively articulate meaningful societal change. This perspective entails the deconstruction of hegemonic narratives, particularly the 'reformist' perspective that currently dominates discussions on sustainability transition. This narrative arguably reproduces the historical processes that have resulted in the overlook of community interests and dispossession, underscoring the need for more research that takes an in-depth (transformative) approach with a particular focus of the role communities play in shaping a socio-ecological transformation in their own terms. Thus, guided by a transformative perspective, this study investigates how and to what extent CWGs have contributed to shaping a socially fair and ecologically sound model of woodland governance in Scotland. As a result, it exposes the harms and benefits, tensions and potentialities, that involve Scottish CWGs and the strategies they deploy within their legal, institutional and socioeconomic context.

Part II of this thesis clarifies how this study takes a transformative perspective to the subject of sustainability transition and its case study of Scottish CWGs. It outlines the theoretical framework adopted, research questions posed, and methodological approach of the study.

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PART II

–Elucidating the research approach –

CHAPTER III – CHOOSING THE SEEDS (THEORETICAL FRAMEWORK)

3.1. Introduction

Once the soil has been prepared, the crofter must decide what to cultivate and gather seeds. Likewise, the researcher defines its research questions and gathers concepts, theories, and ideas to address them. Both seeds and concepts take root on specific grounds – seeds on proper soil, concepts on their underlying ontology – and, when well cultivated, both can bear fruits of their own.

The literature review conducted in the previous chapter situated this study within contemporary debates on the need to transition away from the capitalist system towards a just and sustainable way of living. It also stated that Community Woodland Groups (CWGs) are expected to be a driving force in such a transition, and that this study aims to investigate how and to what extent CWGs have contributed to shaping a healthier social metabolism in the Scottish forestry sector. In order to accomplish so, this chapter lays the philosophical groundwork for this research by presenting its central concepts and defining its theoretical approach.

This chapter is organised into four sections. Section 3.2. clarifies the philosophical assumptions and ontological position adopted in this study. It argues that Marx's theoretical framework of metabolisms transcends both dualistic and monistic worldviews, establishing a materialist-dialectical ontology while providing a transformative rather than descriptive method of analysis. Section 3.3 examines a variety of models designed to assess society-nature relations and to support research around sustainability transitions. It concludes that, while existing assessment models make a significant contribution by highlighting critical 'planetary boundaries', their emphasis on limiting degradation within such boundaries as a measure of sustainability transition does not challenge power disparities that result in unjust societal goals. Section 3.4. justifies why a new assessment model is necessary while setting out the key concerns such an assessment would have to cover. Therefore, it lays the groundwork for the development of the Socio-Metabolic Health

Assessment Model in Chapter VII. Section 3.5. builds upon the literature review and the theoretical insights discussed here to formulate the research questions that are addressed in this study.

3.2. (Re)connecting with nature: beyond dualistic and monistic worldviews

This section explores the society-nature theories to better define the ontological position adopted in this study. First, the section highlights the limitations of both dualistic and monistic worldviews, thus challenging unidirectional theories such as Environmental Determinism (nature determines society) and hard Constructivism (society produces nature). Then, it presents Marx's materialist-dialectical ontology and his concepts of *universal metabolism*, *social metabolism*, and *metabolic rift* as a theoretical framework that enables the analysis of the relationship human beings establish with the rest of nature.

As previously discussed, the worldview shaped by Judeo-Christian conceptions of creation, as well as by the Scientific Revolution of the 17th century, separated man from nature (see subsection 2.3.1.). Their understanding of nature as a gift, a beast, or a machine supports the exploitation of nature by mankind, either because nature exists to serve man or because man needs to subdue nature for survival. As a result, this worldview downgrades the existence value of other species and the limits of the autopoietic capacity of the planet's ecosystems. For this reason, modern environmental movements have challenged the tradition of dualism, striving to reshape the way we view and engage with nature. This is, however, not a simple task since over half of the world's population lives in urban areas[24], where their day-to-day experiences take place in a heavily human processed setting.

> Most of us tend to make a distinction between society and nature as two separate realms in which nature is something out there rather than in here. This often means conceiving nature as some sort of pristine space untouched by human activities, or at least as something we might see when taking a walk in the park. Such conceptualizations are problematic, however. Where does nature end and society begin when, for example, you turn on the kitchen tap and water flows from it? (Taylor and Rioux, 2017, p.193).

[24] 'Today, 55% of the world's population lives in urban areas, a proportion that is expected to increase to 68% by 2050' (UN, 2018).

As disconnected as we might feel from 'nature' due to our daily experience of reality – which conceals the whole process and complexity of the production of such reality – most of us are aware that food does not grow in supermarkets. Furthermore, pressing environmental issues we hear about on the news (e.g., climate change, species extinction), and/or have witnessed (e.g., air/water pollution, deforestation), have shaken our society to the fact that – regardless of how sophisticated our way of life is – we have never been apart from nature.

The anthropocentric illusion of autonomy from or control over nature is one of the major reasons why the Western dualistic conception of nature/society is problematic. It belittles the fact that we are organically bound to nature and, therefore, our own well-being and existence depend on a thriving environment – which our practises can either contribute to or undermine. With the advance of science, it has become evident that the existence of vital ecosystems humans and other species depend on is not a given. However, instead of promoting respect and care for nature, a dualistic worldview has been shown to place human beings in rivalry with their own environment, leading to a reckless exploitation of nature as an infinitely renewable and expendable resource (Merchant, 1989).

There are today several attempts to overcome dualism, each with very different outcomes. For instance, while trying to distance themselves from the tradition of dualism, some contemporary thinkers have re-invoked monistic worldviews. Although monism solves the divide between nature and society, it reduces the parts to the whole, leading to an analytic paralysis. That is, if everything is nature (from farms to factories to even nuclear weapons) there can be no degradation of nature, as all is nature and everything is natural (Foster and Clark, 2020; Foster, 2016). Furthermore, by 'collapsing society into nature' (Braun, 2006, p.191), natural causes replace political ones, leading us to fall back into theories such as Environmental Determinism or Social Darwinism – which are known for underlining racist and imperialist applications (Peet, 1985). Similarly, on the opposite extreme of monism, by reducing everything to society, 'the natural world can scarcely be said to exist at all' (Foster and Clark, 2020, p.281). For instance, while Neil Smith's production of nature thesis successfully overcomes the nature/society dichotomy by dismantling the idea of pristine nature, it reverses the direction of causality from Environmental Determinism leading to a hard Constructivism (Robbins, 2011) or 'hyper-constructionism' (Foster and Clark, 2020) which overlooks the agency of non-human beings/forces and exempts humans from natural laws.

Consequently, this monistic extreme generates a new human exceptionalism, reinforcing an anthropocentric and technocentric worldview.

It is, therefore, important to clarify that the problem underlying the nature/society dualistic worldview lies in its produced sense of detachment and ascension of mankind from nature: *detachment* meaning the belief of not being related to, of being independent from; *ascension* meaning the belief of being superior to, capable to control. Thus, the problem that must be overcome is not the abstract differentiation of nature and society for analytical purposes, but their separation. The desired ontological stance should enable the researcher to see the unity of the whole as well as differentiate its parts and how they interact – its actors, praxis, systems, their outcomes, and their possibility to become. To this end, Marx's understanding of nature, which is characterised by a materialist dialectic of nature-society, 'constitutes a possible starting point' (Foster, 1999, p.398).

Contrary to the alleged neglect of nature, a closer reading of Marx shows that he had a strong interest in natural science and that he demonstrated an ecological awareness ahead of his time (Foster, 1999, 2000, 2013a, 2013b, 2022a, 2022b; Foster and Clark, 2016 and 2020). Ecosocialist thinkers, including John Bellamy Foster, Brett Clark, Richard York, Fred Magdoff, Ian Angus, Helena Sheehan, and Hannah Holleman, have reinvigorated Marx's concepts of *universal metabolism*, *social metabolism*, and *metabolic rift* as interpretative tools that serve to analyse the relationship human beings establish with the rest of nature, allowing us to understand the exchange of matter and energy between ecosystems and a given model of society – characterised by a specific socioeconomic system. In this way, these concepts are instrumental in identifying the processes that create deficits and/or overloads, which compromise the metabolic needs or overburden the metabolic capacity of a given ecosystem, impairing its sustainability – that is, its reproduction or *autopoiesis*. As Foster and Clark (2020, p.24) synthetase:

> Human beings, like other animals, have specific bodily needs essential to their survival, such as hydration, sufficient calories, sleep, and clean air. Marx argued that in meeting these physiological imperatives, human beings actively make history, transform the world, and produce a social metabolism interconnected with the universal metabolism.

Marx acknowledges that human beings are part of nature and, like other living beings, have bodily needs. Thus, they must engage with the outer nature for its own survival, reproduction, and well-

being (through a metabolic relationship). Along this understanding of human and extra-human metabolisms arises 'a situation of reciprocal determination between Society and Nature (…) which some scholars consider to be of a dialectic or co-evolutionary character' (González de Molina and Toledo, 2014, p.60).

Therefore, it can be argued that the ontological position that derives from Marx's framework is based on a materialist-dialectical conception of the world's reality whereby nature is composed of and transformed by biotic and abiotic forces exerted by a network of human and non-human actors. Thus, in this regard, a Marxist worldview is analogous to that of Actor-Network Theory (ANT) (Sayes, 2017). As Kirsch and Mitchell (2004) highlight, '[o]ne of the foundational moves of Marxist theory, like that of ANT, was a radical shift to a relational ontology, a world of relations and processes and not things-in-themselves' (p.689). However, differently from ANT's Latourian 'flat ontology' – where everything is intermixed, lacking clear demarcations due to its abstract-idealist perspective – Marx's dialectical materialism promotes a differentiation from within, emphasising complexity, agency, mediation, and dynamism (Royle, 2017; Foster and Clark, 2020). While ANT's overly fluid view becomes apolitical – since there is no way of distinguishing parts and, therefore, no accountability can be placed due to its diffused substance (Kirsch and Mitchell, 2004) – Marx's materialist-dialectical perspective resorts to abstractions that 'temporarily isolates, for purposes of analysis' (Foster, 2013a). Such abstract differentiation from within does not detach the parts from the whole, but rather enables a critical analysis of the relationships among parts and/or between certain parts and the whole by acknowledging their permeable delimitations.

Another important distinction of Marx's theoretical framework is that, even though it argues that human beings are part of nature (being organically bound to nature), Marx does not equal human societies to 'any other biological population in a web of ecosystemic relations' (Watts, 2013, p.85) as he recognises that human societies are characterised by a complex social layer[25] and, therefore, cannot be reduced to mechanic adaptations – that is, to instincts and natural laws of evolution alone. For instance, human beings, like any other animals, are required to eat (minimum

[25] Recent advances in knowledge have shown that social organisation is not unique to humankind; it has, for instance, been observed in other higher primates, elephants, and dolphins. Therefore, it can be argued that its prominence in humans is a matter of degree rather than kind (Boyd, 2017). The central point here is to acknowledge that there is a socio-cultural layer to human organisation, which means it can be socially transformed. Whether or not other species share this social/cultural characteristic, and to what degree, is not essential to the aims of the present study as it focuses on the transformation of human relations to nature.

calories and nutrients) to survive, however, there is a degree of autonomy on what one chooses to eat, and how food is appropriated and consumed. Hence, human organisation and engagement with their environment are not purely instinctive or mechanistic but rather mediated by a social system.

From a materialist-dialectical perspective, human beings are part of nature; however, their metabolic relationship with outer nature is mediated by a socio-cultural-economic system. Thus, society cannot be reduced to nature. Likewise, nature precedes and transcends human existence; therefore, nature cannot be reduced to society. Furthermore, even though human beings can modify their environment to an exceptional degree when compared to other species (Royle, 2017), they can only do so within the limits of the laws of nature and the material conditions they encounter. By promoting a nature-society differentiation from within, Marx's theoretical framework of metabolisms transcends both 'an abstract monism and a crude dualism' (Foster and Clark, 2016). Instead, it promotes a dialectical unity, which enables us to see the whole and its interacting parts.

> Rather than see the human-nature relationship in dualistic terms (which places the two sides in opposition to each other) or in monistic terms (which simply collapses the natural into the human or vice versa), a dialectical position is presented which sees humanity and nature simultaneously shaping and being shaped by the other, while each maintaining a measure of autonomy. (Evanoff, 2005, p.63).

The materialist-dialectical framework challenges unidirectional theories such as Environmental Determinism (nature determines society) and hard Constructivism (society produces nature). Instead, it proposes a relational ontology, whereby nature and society are simultaneously and constantly shaping and being shaped by each other. However, never in absolute terms, since each maintains a measure of autonomy. That is, nature shapes society as human beings have physiological needs dependent on nature (e.g., food, water, air), and human agency is bound by natural laws. Yet, humans have a certain degree of autonomy in organising themselves to meet their needs, as the form this organisation takes is not determined by nature – geographic and historical variances in social structures are evidence of that. Similarly, in meeting their needs, human beings (organised into society) shape nature. However, they do not shape the whole of nature, nor can they do it outside the laws of nature (Evanoff, 2005). That is, people make their own history, but they do not make it as they please (Marx, 1852); 'rather they do so under conditions inherited from the past (of both natural and social history), remaining dependent on the

underlying dynamics of life and material existence' (Foster, 2013a). Furthermore, it should be noted that this ability to act on and change the environment (niche construction) is not unique to humans, but rather 'something all living things do' (Royle, 2017, p.1440; see also Clark and York, 2005b). Therefore, nature cannot be reduced to the product of human agency.

Overall, it can be argued that there are three important advantages to Marx's theoretical framework of metabolisms, which frames a political reading of human organisation (into different models of society) within nature: 1. the understanding that we are part of nature and, therefore, depend on its wellness and are subject to its laws; 2. the understanding that we shape environments/niches and, therefore, bear responsibility for our actions; and 3. the understanding that human relationship with nature is mediated by a socially constructed system (the production of a way of living) and, therefore, can be transformed.

The significance of this ontological view is the understanding that we are organically bound to nature, being physiologically dependent on it and subject to its laws, which 'teaches humility in another way' (Washington et al., 2017, p.5). It reminds us that we are not autonomous beings, but rather we rely on others (human and non-human beings) for our own survival and well-being; neither are we omnipotent creatures, as there are biophysical limits to what we can do (besides ethical limits to what we should do). Hence, this view surmounts the dualistic illusion of human detachment or ascension from nature and extends respect and care to non-human nature. It grounds human beings in nature materialistically by asserting that all living beings are interconnected with their shared environment through metabolic exchanges.

The understanding that we shape environments/niches reveals that living beings are not passive to their environment, but rather active constructors. The work of dialectical biologists Richard Lewontin and Richard Levins presents great insights on this matter, including the idea that niches do not exist prior to organisms but rather come into being through the activity of living agents and inorganic forces, which act on the material conditions they have inherited (Clark and York, 2005b; Royle, 2017). Such historical-materialist approach enables us to discuss the historically specific ways through which habitats are shaped and in whose interests. Furthermore, since environments are not inhabited by single species in complete isolation, when an organism changes the environment, it does so not just for its own kind but for all other organisms exposed to that environment. 'As the human species constructs a particularly complex niche then this is perhaps most clear in the case of humans' (Royle, 2017, p. 1439). Therefore, this view brings to

light the fact that we should take responsibility for how our actions impact not only human beings but also other species. It raises the foundation for environmental ethics to consider human responsibility for possible harm caused to and duties towards the broader community of living organisms and ecosystems' well-being (Washington et al., 2017; Boyd, 2017). As Richard Evanoff (2005, p.75) summarises it, the question for environmental ethics is:

> not *whether* humans should attempt to modify their natural environments, but rather *how* and to what *extent* humans should seek to modify their natural environments. Humans unavoidably modify their natural environments by their very presence in those environments; they appropriate resources found in nature to sustain human life and create particular forms of culture. Obviously, however, human life can be sustained and forms of culture created which do not require humans to control and manage the *whole* of nature. The ethical question can be recast, then, not to ask how nature should be managed or preserved, but rather to ask what forms of culture can be created which allow both for human flourishing and for the flourishing of nonhuman forms of life.

Evanoff's recast question is directly linked to the final advantage listed about Marx's theoretical framework of metabolisms, the understanding that the social metabolism is shaped by the organisation of a mode of production – the production of goods and services, but also the production of a way of living with others and the rest of nature.

It is important to clarify that a focus on the social metabolism does not mean disregard for non-human life forms. A focus on the social metabolism 'provides the most direct window into the mechanisms of social and environmental interaction' (Robbins, 2011, p.28). It is only by improving our understanding of how the way we live impacts nature as a whole that we can properly re-think and transform our relationship with it. Thus, this focus affirms a commitment to the improvement of societal practises for the mutual benefit of human and non-human life on Earth. From this perspective, the very purpose of knowledge acquisition shifts from domination to coexistence. Far from being anthropocentric (in an egocentric sense), a focus on reshaping the social metabolism means that we (human beings) should take responsibility for our own actions, paying attention to how these actions affect not only ourselves but other beings and our shared home. In other worlds, this focus assumes that '[t]here is no need to "manage" nature, only a need to manage our own affairs in a way that preserves the autonomy of nature; nature is fully capable of managing its own affairs in the absence of (often irresponsible) human intervention.' (Evanoff, 2005, p.75).

According to Marx's theory, 'the forces of and social relations of production constitute the unique starting point for human adaptation which is the appropriation and transformation of nature into material means of social reproduction' (Watts *in* Robbins, 2011, p.93). Marx used the term 'relations of production' to refer to social arrangements or relationships that produce goods and services. With that, he sheds light on different social formations and their conflicting class relations — for example, master-salve (primitive society), lord-serf (feudal society), and bourgeois-proletariat (capitalist society). These same relations of production shape the relationship between human beings and ecosystems, through processes of extraction and production of a way of living.

Marx's theoretical framework of metabolisms frames a political reading of the nature-society relationship by placing society within nature without denying it a certain degree of autonomy. This autonomy refers to the human capacity for imagination, decision-making, and organisation which allow us to create specific ways of living from the historic-material conditions we inherit. That means human beings do not live (purely) instinctively but produce a culturally specific way of living. As Watts (2013, p.87) explains: 'this production is not simply survival, for societies survive in a *specific, historically determinate way*; they reproduce themselves, albeit as systems, but also as certain kinds of men, women, classes and groups, not as organisms or aggregates thereof'. Hence, Marx's theoretical framework allows 'for a praxis-based approach that integrated nature and society, social history and natural history, without reducing one entirely to the other' (Foster, 2013a).

The relevance of this ontological view is that it places human beings in a position where they are capable of transforming their own social metabolism. The understanding that human relationship to nature is not purely instinctive or mechanistic but rather mediated by a socially constructed layer means that this relationship – the social metabolism – can be transformed. Thus, this ontological approach enables the researcher to critically evaluate social goals, practices, structures, and assess transitions. Hence, this approach is not merely descriptive, but transformative – that is, it produces not only an ontological worldview, but also a method for the empirical study of 'the real problems of environment and society' (Foster, 1999, p.18).

The section that follows examines existing sustainability transition assessment models in search of instruments that are compatible with the theoretical approach used in this study.

3.3. Sustainability transition assessment models

While there is widespread agreement that we must transition to a sustainable manner of living, our understanding of why our current way of life is unsustainable varies, as does our conception of what it means to live sustainably. Varying perspectives result in different transition strategies (as discussed in subsection 2.2.1.), as well as in different methods for assessing progress towards sustainability (Bond, Howitt, and Morrison-Saunders, 2013; Gasparatos and Scolobig, 2012; Van Bellen, 2004). This section examines existing sustainability assessment models in search of tools to analyse Scottish CWGs' contributions to shaping a healthier social metabolism.

There are many sustainability assessment models available today. Most were created after the 1970s, when environmental assessment obligations started to be introduced in industrialised countries. These models are often presented visually to highlight key factors and interactions that frame a specific understanding of the problem and can assist in directing and assessing changes. Hence, defining what should be assessed is to define what should be incorporated into decision-making. 'Sustainability assessment is, to put it simply, a process that directs decision making towards sustainability' (Bond, Howitt, and Morrison-Saunders, 2013, p.38). It serves not only to indicate progress or lack thereof towards sustainability goals, but also to define what sustainability is.

> Sustainability assessment tools contain several assumptions about what is important to be measured, how to measure it, who and in what role needs to be considered in the assessment, and what sustainability perspectives are both relevant and legitimate. These are essentially value judgment with which analyst might not necessarily agree, or even be aware of. However, the fact remains that these value judgments form the worldviews of each tool and are attributes that exists regardless of the analyst. In this sense the moment a sustainability assessment tool is selected and used, then these attributes unequivocally frame the sustainability assessment and its outcomes. (…) A direct result of the above is that the selection of a sustainability assessment tool carries practical and ethical implications. (Gasparatos and Scolobig, 2012, p.6).

The definition of the concept of *sustainability* varies, but it generally encompasses the long-term maintenance of ecosystems' autopoietic capacity. As a result, most sustainability assessment models focus on the impact of human activities on biophysical processes such as ecosystem regenerative and absorptive capacities. Since the Club of Rome's *Limits to Growth* publication in

1972 (Meadows et al., 1972), biophysical processes have come to be recognised as limited, and the capitalist ideal of perpetual growth has been regarded by some as irreconcilable with the material reality of a finite planet (Hickel, 2020; D'Alisa, Demaria, and Kallis, 2014).

The recognition of Earth's carrying capacity led to the creation of many sustainability assessment models based on environmental limits, such as the Ecological Footprint. The Ecological Footprint, created in the early 1990s by Mathis Wackernagel and William Rees, is one of the oldest sustainability assessment models that is still in use today – particularly as carbon footprint (Laurent and Owsianiak, 2017). This model highlights the need to balance the consumption of natural resources by human populations with the biocapacity of ecosystems.

> Ecosystems have a limited ability to supply us with natural resources. This is based on factors such as water availability, climate, soil fertility, solar energy, technology and management practices. This capacity to renew, driven by photosynthesis, is called biocapacity. When a population's ecological footprint exceeds the biocapacity of its territory, it runs a biocapacity deficit. This deficit is balanced either through the use of biocapacity from elsewhere, or local overuse, called 'ecological overshoot'. (Wackernagel, Lin, and Hanscom, 2018, p.2).

Thus, the Ecological Footprint focuses on problems related to the overconsumption of natural resources and the limits of ecosystems' biocapacity. However, it has been criticised for its propensity to overlook the degradation of ecosystems' regenerative capacity over time (Fiala, 2008), for the misunderstanding and misuse of its results by researchers and stakeholders (Laurent and Owsianiak, 2017), and for its tendency to transfer corporate accountability to individual decisions and behaviour changes (Solnit, 2021). In addition, the footprint approach is also criticised for its restricted focus on particular environmental issues, which renders it inadequate as an overall measure of sustainability. Even its developers acknowledge this limitation: the footprint approach 'measures merely one critical aspect of sustainability: the availability of, and the human demand on, Earth's regenerative capacity' (Wackernagel, Lin, and Hanscom, 2018, p.5).

Other sustainability assessment models attempted to integrate multiple sustainability concerns, such as the Planetary Boundaries diagram – which was developed in 2009 by Johan Rockström and colleagues. The Planetary Boundaries approach focuses on identifying the most alarming human-induced ecosystem disruptions and establishing thresholds that, if crossed, pose a threat of severe environmental change (Rockström et al., 2009). While this assessment model

makes an important contribution by defining nine planetary boundaries[26], it is restricted to biophysical processes of the Earth System. In other words, it does not incorporate social concerns beyond the anticipated detrimental impact on human livelihood that should unfold from extreme and unpredictable environmental changes. The problem with purely environmental assessment models is that they disregard socio-economic problems and factors; their emphasis on the environmental dimension can be used to justify austerity measures (Benton, 2017; Dunlap and Fairhead, 2014).

Alternative approaches to the concept of 'sustainability' try to integrate environmental and social concerns beyond causal relationships. They focus on defining sustainability as a societal goal, as an ideal society. In this sense, what is advocated by many academics and activists is not only sustainability — understood as the preservation of ecosystem integrity — but a *just sustainability* — understood as the creation of a way of living that is both environmentally sustainable and socially fair. The just sustainability perspective presents three reasons for incorporating social justice into the environmental debate: (a) the recognition that the world's poor are those who least contributed to a global-scale environmental degradation while being those most vulnerable to its negative effects (Ritchie, 2019; Evans, 2021); (b) the recognition that poverty can lead to further environmental degradation (Boyce, 1994; Duraiappah, 1998; Masron and Subramaniam, 2019); and (c) the simple belief that a desirable society should be both environmentally sustainable and socially fair (Newell and Mulvaney, 2013; Stevis and Felli, 2015).

> First, that struggles for social justice cannot offer sustainable solutions unless they take into account the nature-given conditions for the flourishing of life, and, indeed, recognise that environmental justice is an essential condition for the achievement of all other dimensions of justice. Second, that no measures to protect non-human nature from destruction can be justified, or are likely to be socially or politically sustainable, unless they are firmly based on the defence or expansion of social justice and human wellbeing. This rules out fighting austerity by unqualified support for economic growth. It rules out protecting tropical forest by driving out its indigenous inhabitants. It rules out addressing climate change without addressing the needs of the world's poor, or the plight of workers in polluting industries. (Benton, 2017, p.62).

[26] Stratospheric ozone depletion, Biodiversity loss, Chemical pollution, Climate Change, Ocean acidification, Freshwater use, Land use change, Nitrogen and phosphorus flows to the biosphere and oceans, and Atmospheric aerosol loading.

The concept of sustainability based on the three pillars of environment-society-economy evolved partially due to these social justice concerns, but also due to neoliberal corporate interest in (allegedly) reconciling economic growth with environmental protection (Ekins, 1993; Carruthers, 2001; Hickel, 2019). The basic weakness of this definition is not only its intrinsic contradiction, but also the fact that economic interests typically take precedence over social and environmental concerns, which serves to justify inaction in these secondary areas (Kambites, 2014; Klein, 2015; Banerjee, 2003; Stewart, 2015; Kopnina, 2016).

Several sustainability assessment models have attempted to integrate environmental and socio-economic concerns, such as the 'Barometer of Sustainability' (Prescott-Allen, 1997) and the 'Dashboard of Sustainability' (Hardi and Semple, 2000). A more recent example of that is Kate Raworth's doughnut of social and planetary boundaries, which builds on the Planetary Boundaries model by adding social boundaries[27] to the original model. The combination of an ecological ceiling and a social foundation gives this model a *doughnut* shape, which, according to Raworth (2012 and 2017), defines a safe and just space where humanity can thrive.

However, establishing limits is not enough to guide a sustainability transition. Limits are quantitative and, therefore, allow any practise to continue to a certain degree. In other words, limits do not call goals and practises into question in a qualitative manner – asking why a certain goal/activity is necessary (i.e., whether it contributes to human and ecological well-being), as well as how it is performed (i.e., whether it could be done differently). Limits restrict goals/activities to the biophysical capacity of the planet and to the basic needs of human populations. While this restrictive character can pose serious challenges to the expansionist logic of the capitalist system, limits alone do not challenge the intent of the system. Furthermore, the capitalist system often bends rules to render limits flexible – by promising technological solutions and compensatory strategies such as carbon markets (as previously discussed in *subsection 2.2.1*).

Overall, existing (or dominant) assessment models do not call into question the intent of the socioeconomic system. Consequently, they do not reach into the depths of change that a transformative (or revolutionary) approach to sustainability transition requires (Davelaar, 2021; Meadows, 2009). To begin addressing sustainability concerns as the transition away from the

[27] In addition to the ecological ceiling of the nine Planetary Boundaries, the doughnut establishes a social foundation based on 12 social thresholds: Heath, Food, Water, Energy, Networks, Housing, Gender equality, Social equity, Political voice, Peace and justice, Income and work, and Education.

capitalist system, a conceptually coherent assessment model must be developed. Marx's theory, particularly his theoretical framework of metabolisms, offers great insights for developing a robust instrument for empirical research and action.

3.4. On the need for a new assessment model

As discussed in the previous section, sustainability assessment models serve not only to assess progress towards sustainability but also to define what sustainability is and to indicate how it can be achieved. This section dives into the connection between theories and assessment models in order to justify the necessity for a new assessment model capable of challenging both the practises and the intent of the capitalist system.

There are profound differences between assessment models because theory determines what a sustainability assessment 'actually does' (Bond, Howitt, and Morrison-Saunders, 2013, p.XV). It defines what is measured, how it is measured, as well as how different indicators are intertwined. Furthermore, different assessment models can serve different purposes that relate to distinct political interests and/or practical concerns. Some assessment models are concerned with making human activity less harmful and/or alleviating negative effects, whereas others are dedicated to transforming and reversing unsustainable patterns. Some are focused on local urgent needs; others are concerned with cross-boundary exchanges and intergenerational equity (Davelaar, 2021; Bond, Howitt, and Morrison-Saunders, 2013).

Some assessment models are incompatible with others; however, not all of them conflict. The problem of sustainability transition is extremely complex and requires a comprehensive set of assessment tools rather than a one-size-fits-all magic wand. This thesis argues that, while there are many assessment models available, sustainability science still lacks assessment models coherent with a radical, transformative approach to the sustainability transition problem. As a result, it becomes difficult to operationalise or use this theory in empirical research as well as in the development of alternatives to the capitalist mode of production.

For instance, there are a few assessment models based on Marx's theoretical framework of metabolism available in the existing literature (González de Molina and Toledo, 2014; Fischer-Kowalski, 2011; Haberl et al., 2019; Marco, Padró, and Tello, 2020; Infante-Amate et al., 2022).

However, these models have focused on biophysical indicators (material and energetic flows), downplaying the socio-cultural formative components of socio-metabolic systems (such as its goals and values). As a result, there is no clear contender for a socio-metabolic assessment model that confronts both the practises and the intent of the capitalist system.

Marx's critique of capitalism provides a foundation for thinking about the possibilities of a sustainability transition; that is, the transition away from an unhealthy capitalist metabolism to a healthy one. However, the operationalisation of his theory for research and practise in the field of sustainability is still underdeveloped. Neither an explicit definition of what constitutes a healthy (or unhealthy) social metabolism nor clear guidance for pursuing or assessing such a transition exist. This lack of clarity on how to employ this theoretical framework to address the sustainability transition question hinders its application and its capacity to contribute to the debate and action.

3.5. Research questions

This thesis aims to contribute to a greater understanding of how and to what extent Scottish CWGs have contributed to a (transformative) sustainability transition, as well as to advance theory and research tools on this subject from an ecosocialist perspective. It investigates how Scottish CWGs are organised and function, how they have developed their power to shape/influence change, and to what extent they have promoted a transition away from unhealthy capitalist practises towards a healthy social metabolism. It also examines the shortcomings of prevailing assessment models, noting the need for an ecosocialist assessment model to properly challenge the capitalist system and integrate social and environmental concerns.

Both the literature review and the theoretical insights discussed here have significantly contributed to the formulation of the research questions that this study poses. Drawing from the existing literature, this study proposes that Scotland's recent trend towards community participation in forestry can have very different meanings and outcomes depending on three aspects: (i) the definition of *community* and participatory mechanisms; (ii) the effective *power* CWGs have within the socio-political structure they exist in; and (iii) the ends pursued and means employed by CWGs in their forestry projects.

(RQ1) *Who is the 'community' in Scottish CWGs, and how is this community organised for forest management?* This question is concerned with the precise meaning of *community* in CWGs and the participatory mechanisms that allow community members to shape the goals and practises

of their CWG. This question is relevant as literature has demonstrated that the terms ‘community’ and ‘community participation’ can have vastly different meanings (Arnstein, 1969; Fyfe, 2005; Head, 2007; Shaw, 2008; Blackshaw, 2010; Chaskin, 2012), and that power imbalances or segregation can exist within communities (Agarwal, 2001; Platteau, 2004; Labonne and Chase, 2009). In addressing this question, this study aims to better understand how the ‘community’ in Scottish CWGs is defined, how their community members participate in decision-making processes, what organisational form CWGs assume, and whose interests they primarily serve. This investigation should clarify whether these CWGs are in fact worker-community controlled organisations and whether their goals differ from the capitalism exclusionary and accumulative imperative by focusing on the well-being of people and the environment. This is essential to figuring out whether a transition in decision-making power and values is taking place, which has the potential to transform the dominant unhealthy social metabolism.

(RQ2) *What factors/actors have contributed to the emergence and empowerment of CWGs in Scotland?* This question seeks to identify key factors and actors that have contributed to the emergence of CWGs in Scotland and explores the broader political context in which they operate. As the literature has shown, both the shape and the outcomes of community-led projects are significantly influenced by their socio-political context (Ojha et al., 2016; MacLeod and Emejulu, 2014; Büscher and Whande, 2007; Bulkan et al., 2022; Raco, 2005; Dressler et al., 2010). External factors/actors can restrain (Bulkan et al., 2022; Measham and Lumbasi, 2013; Twyman, 2000), co-opt (Bulkan et al., 2022; Creamer, 2015), or empower community-led organisations (Ritchie and Haggith, 2012; Bulkan et al., 2022). In addressing this question, the purpose of this study is to obtain a deeper understanding of the power dynamics between CWGs and other political actors, with a focus on how CWGs can strengthen their political influence and productive forces.

(RQ3) *How can a model of assessment better inform about the overall health of a given social metabolism and the possibilities for enhancing it?* According to the literature, community-led initiatives may not always lead to greater equity or sustainability (Dressler et al., 2010; Berkes, 2004; Kellert et al., 2000; Agarwal, 2001). For this reason, it is important to assess how and to what extent Scottish CWGs have shaped a healthier social metabolism in the forestry sector. The literature also reveals that a 'reformist' perspective dominates research on the subject of sustainability transition, underscoring the need for more research that takes an in-depth (transformative) approach to the issue. As discussed in this chapter, dominant assessment models

are not suitable for the ecosocialist Theoretical Framework adopted in this study. Hence, this research question sets the main objective of this thesis, which is to advance ecosocialist theory and research tools by developing an original assessment model.

By addressing these questions, this thesis contributes to the existing body of literature by providing additional evidence and expanding knowledge on the characterisation and organisation of CWGs in Scotland, on the power dynamics constituting their socio-political context, and by developing an original assessment model. This model offers a comprehensive and workable assessment of the transition away from an unhealthy social metabolism towards a healthy one. In doing so, it contributes to the operationalisation of the Marxist theoretical approach in sustainability studies, helping to advance a counter narrative to the hegemonic definition of sustainability and its models of assessment and guidance towards a sustainability transition.

CHAPTER IV – THE ART OF GARDENING (METHODOLOGY)

4.1. Introduction

Knowledge cultivation, like crofting, demands technique. Techniques must be suitable for the crop; for instance, some crops demand more water than others. Similarly, different types of knowledge require distinct cultivation methods. This study seeks to cultivate knowledge about CWGs, aiming to understand how they have transformed the Scottish forestry sector, and to what extent they have fostered social and ecological well-being. In order to capture relevant and sufficient data to do so, this study combines a number of data collection methods and sources.

This chapter presents the methodology used in this study, including the types of data that were gathered, how they were organised and analysed, methodological limitations, ethical considerations, and why this methodological approach is considered to be appropriate to address the research questions posed by this study. Firstly, it outlines the research paradigm adopted in this study (section 4.2.). Secondly, it describes the sources and methods of data collection used in this study (section 4.3.). Thirdly, it sheds light on how data was processed and analysed in the production of this thesis' findings (section 4.4.). Finally, the challenges and limitations of this methodological approach are discussed (section 4.5.), as well as the ethical procedures that were adopted in this study (section 4.5.).

4.2. Methodological approach

Methodology and theory are inextricably linked, revealing how reality is perceived and knowledge is obtained. 'If we hold that there is a world out there that is knowable to us as social scientists, the question then is how and with what methods does this become possible?' (May and Perry, 2022, p.209). In other words, all scientific methods are sustained by an epistemological understanding of knowledge production. 'Methodology is as centrally concerned with how we conceptualise, theorise and make abstractions as it is with the techniques or methods which we utilise to assemble and analyse information. These conventions are neither fixed nor infallible, although they might appear so at times' (Miller, 2003, p.192).

Contemporary studies on community-led forestry have been influenced by the broader literature on sustainability – which involves a wide variety of disciplines and research paradigms. This section presents the three main research paradigms in this literature to posit the philosophical approach of this study as part of its research methodology.

Positivism is one of the most prevalent research paradigms in the field of sustainability and, as previously discussed (see section 3.3.), it influences the conceptualisation of assessment models. According to positivist reasoning, knowledge is unveiled based on objective data and rational logic that reveal universal laws. This research paradigm is commonly adopted in exact sciences that aim to develop new technologies, such as solar panels and plastic-dissolving enzymes. However, this paradigm is also adopted in the social sciences, as positivists believe that 'the social and behavioral sciences should have the same structure and logical characteristics as the natural sciences' (Little et al., 2020). Positivist social studies claim to standardise the procedures of data collection and to eliminate observer bias, resulting in replicable and generalizable findings (Hammersley and Atkinson, 1995).

Therefore, the positivist approach assumes the existence of an objective reality that can be revealed through deterministic methods, which they claim to be detached from any subjective interpretation (Payne and Payne, 2004; Sawyer, 2005). While the positivist approach tends to suit the needs of exact sciences, it falls short when applied to studies reliant on non-measurable and/or subjective factors, such as human behaviour, social values, or structures that are embedded in specific socioeconomic, political, and cultural contexts (Mertens, 2010). Hence, it is an inadequate paradigm for this study as it seeks to understand the experiences of communities vis-à-vis their relationship with nature, labour management, and the state.

Constructivism rises as another major research paradigm in sustainability studies that perceives the social world as a wholly subjective experience. That is, it is a research paradigm that claims reality is socially constructed. Constructivists believe that the world can only be understood intersubjectively, 'the world as it is constructed through the meanings and understandings given to it by different actors in the lifeworld' (May and Perry, 2022, p.210). This approach allows researchers to reflect on different perceptions or interpretations of reality and the practises that stem from them. For example, studies that aim to understand the meaning and operationalisation of 'sustainability' by distinct social actors and structures such as public policies, economic systems,

or business models. Within this paradigm, any social research findings are not objective facts; rather, they are constructed through data interpretation. Nonetheless, stating that research findings or even data are constructed 'does not automatically imply that they do not or cannot represent social phenomena' (Hammersley and Atkinson, 1995, p.18). In essence, constructivism aims to explain how the world is constructed and reconstructed by human interpretation rather than to reveal universal laws.

Finally, the *Transformative* paradigm is a valuable research paradigm for sustainability studies. It distinguishes itself from the positivist and constructivist paradigms by claiming that reality is shaped by socio-historical factors largely influenced by power relations and class struggle. In other words, it argues that 'realities are constructed and shaped by social, political, cultural, economic, and racial/ethnic values' (Mertens, 2010, p.212) and that power and privilege are crucial factors in determining which reality will be dominant. Within this paradigm, researchers examine power dynamics and systems that favour certain groups over others (Frey, 2018). They explore policies and practises that perpetuate disparities, including the disproportionate environmental and social burdens imposed on historically disadvantaged communities (Agyeman, 2008; Freire, 2005; Hay, 2002; Robbins, 2011). 'Transformative approaches extend beyond knowledge generation and take an activist stance in promoting social justice' (Frey, 2018, p. 1711, see also Mertens, 2010; Freire, 2005). Researchers adhering to this paradigm aim to produce knowledge as a basis for action to transform the world, 'towards generating increased fairness in the social fabric' (Romm, 2015, p.411).

To enhance comprehension, the table below synthesises the ontology, epistemology, and utility of each paradigm described.

Table 4.2. Cross-Paradigm analyses

	Positivism	**Constructivism**	**Transformative**
Ontology (nature of reality)	Naïve realism – Objective reality.	Relativism – Multiple realities.	Historical realism – Shaped by historical factors.
Epistemology (nature of knowledge)	Findings are 'true'.	Created findings.	Value-mediated findings.
Utility (inquiry aims)	Predict and control.	Understand and reconstruct.	Critique, empower and transform.

Source: Adapted from Guba & Lincon (2005) and Mertens (2010).

This study aims to produce knowledge about CWGs in an effort to understand how they have transformed (and could further transform) the Scottish forestry sector for the advancement of social and ecological well-being. To that end, it will explore: a) the level of empowerment of community members and/or the continuation or recurrence of historical oppressions; b) the interplay of economic and political forces in the forestry sector and CWGs' enactment of/or potential for resistance; and c) how CWGs can foster a healthier social metabolism than the capitalist mode of production. Hence, the most suitable research paradigm for this study's objectives is the transformative paradigm. By adopting a transformative paradigm, this study acknowledges contemporary power struggles and strives to generate knowledge that may empower the communities that are the subject of this study. In other words, the purpose of this study is to produce knowledge that may assist Scottish CWGs in transforming their realities by challenging harmful structures, goals, and practises and by promoting social justice and sustainability.

4.3. Data collection design and procedures

This study collected data from three distinct sources: 1. Two Case Study communities; 2. CWGs' webpages; and 3. CWA documental archives. Each source of data creates a different window from which to look at Scottish CWGs, supporting the development of knowledge about what they do and how they operate. The combination of diverse sources of data and methods of data collection allows the researcher to look at the subject from many angles, getting a richer, more balanced picture of it (Yin, 2009; Saldaña, 2013; May and Perry, 2022).

4.3.1. Case Studies

A case study is a meticulous examination of a single case (or a small number of cases) that aims, at least in part, to shed light on a phenomenon or a larger population (Gerring, 2006). There are two significant advantages to using a case study methodological approach. The first advantage is its restricted focus, which enables an 'in-depth, multi-faceted explorations of complex issues in their real-life settings' (Crowe et al., 2011, p.1). Therefore, case studies are particularly useful for illuminating complex initiatives such as comprehensive reforms and community development projects (Yin and Davis, 2007) – a description that matches the subject of this study, i.e., Scottish CWGs. The second advantage of using a case study approach is that it makes research more

manageable. There are today over 200 CWGs in Scotland (Lawrence and Ambrose-Oji, 2013; Forestry Commission Scotland, 2015); hence, it would be impracticable to collect and analyse in-depth data from all these groups in this study due to financial and time constraints.

All in all, case studies are a well-established methodology in the social sciences, owing to their capacity to handle a subject's complexity and contextual conditions (Yin, 2013; Gillham, 2000). That is possible because a case study combines several data collection methods in an attempt to grasp the entangled relationship between subject and context (Yin, 2009). There are numerous examples of case study-based research conducted in the fields of community-based natural resource management (CBNRM) (Twyman, 2000; Fabricius and Collins, 2007; Measham and Lumbasi, 2013; Chambers, 2018) and community/sustainable development (Nicholls et al., 2020; Fatimah et al., 2020; Wołek et al., 2021). In the following paragraphs, the specific steps taken to adopt a case study approach in the present study are outlined.

The first phase of data collection undertaken in this study involved selecting and conducting case studies. CWGs were chosen as Case Studies based on the following criteria: 1. Evidence of being a community-led endeavour; and 2. High level of activity. A CWG was visited in 2018 as a prospective case study, but it failed to meet the second selection criteria. This community was at a low activity level because their forestry plan focused on the creation of a wooded area, and they had already planted the trees and were only monitoring their growth. A second prospective case study was visited in March 2019 and met the selection criteria; thus, it was chosen as Case Study 1 (CS1). Later, during fieldwork in CS1, it was learned that they were negotiating with another CWG for assistance with a timber harvesting operation. The community offering consulting services to CS1 also met the selection criteria and was, therefore, chosen as Case Study 2 (CS2). Access to the communities was obtained through e-mail communication, and fieldwork was scheduled to occur during times when the case study communities were particularly active and welcomed an extra hand (which was offered by the researcher conducting participant observation).

In addition to the two selected case studies, the researcher came into direct contact with nine other CWGs during this study. Three communities were visited, including the aforementioned potential case study in 2018, which did not satisfy the selection criteria, and two urban communities visited by the researcher pre-COVID as potential case studies (but which could no longer be pursued due to social distancing measures). The researcher was also able to meet and discuss with

members of other six rural CWGs she met during fieldwork in CS1 and CS2. These meetings happened by chance, as members of CWGs often visit other CWGs to share knowledge. All these short encounters with an additional nine CWGs have informally contributed to the researcher's reflections on and understanding of the subject of this study.

A desk-based investigation of each case study's history was conducted online prior to fieldwork. During the fieldwork, participant observation, interviews, and document analysis were utilised to collect in-depth data about the case study CWGs. The researcher adopted the role of *overt participant observer* in which she had *active participation* (Spradley, 1980). This means that participants were aware of the study, and the researcher was engaged in the activities of the social group. The researcher lived and worked in each case study community, recording observations, informal conversations, and personal reflections in a case study diary (the fieldnotes). By living and working with participants, the researcher was able to learn *from* them rather than *about* them, and by taking a 'participant' approach, the researcher's body became a fieldnote (O'Reilly, 2009). Participation enriches observation as rather than just 'being there' among the people, the researcher occupies a role in the field and learns from direct experience (May and Perry, 2022).

To understand how any group of people, such as CWGs, produces a way of life, one must study them in their own context — in their naturalistic setting (Gillham, 2000; Flick, 2013). Participant observation was an appropriate method of data collection from a real-world situation – that is, from non-controlled, non-experimental circumstances. 'Participant observation is about engaging in a social scene, experiencing it and seeking to understand and explain it' (May and Perry, 2022, p.189). It is an immersive method in 'which the researcher takes part in everyday activities related to an area of social life in order to study an aspect of that life through the observation of events in their natural contexts' (Given, 2008, p. 599).

In this study, the area of interest was the community use and management of local woodlands. Thus, the researcher participated in daily activities and all community events involving woodlands during fieldwork. In addition to forestry work, the researcher participated in several community volunteer activities, such as helping to improve the local school playground and vegetable greenhouse, cleaning the beach, painting the community hall building, and assisting community members with cleaning and gardening at their homes and crofts. This approach provided extensive opportunities for participant observation and 'informal interviewing', which

helped the researcher gain a deeper understanding of case studies and their context. According to Swain and King (2022), informal conversations – also referred to as 'informal interviews' – provide researchers with more authentic data because there is usually less performativity, thus more realistically representing individuals' experiences, values, and perspectives.

The observational approach was chosen because it involved direct observation of human activity, relationships, and physical features of settings rather than relying on informants' accounts. Thus, as O'Reilly (2009, p.160) describes, it allows the researcher 'to learn about events, feelings, rules, and norms in context rather than asking about them. It enables a focus on what actually happens rather than what tends to happen. It enables the entire context of an event to be included in the observation, rather than relying on the interpretation, recollection, and reordering of events that tend to go with reporting'. Nonetheless, participant observation gathers data from more than just observation. Observations are supplemented by insights from informal interviewing, and the researcher's introspection about her own experience in the field as a participant (Given, 2008; Flick, 2008).

This method, however, is not without limitations. 'Of course, what the researchers actually see or hear in the field and how they interpret it are both filtered through the researchers' orientation toward the object of the observations.' (Flick, 2013, p.355). Data collection from direct observation is not a simple matter of noting down 'the facts' from what is seen or heard, but a matter of making sense of what is seen and heard, and giving it meaning (Gray, 2022). The process of observing and reporting is guided by the observer's implicit or explicit concepts, which give some data greater significance and relevance than others. What is included or omitted is not chosen arbitrarily; it reflects the researcher's interests and working theories (Flick, 2013). That is, 'theoretical interests guide observations, which, in turn, modify or alter theoretical interests' (May and Perry, 2022, p.179).

It is acknowledged that the positionality of the researcher, as a non-community member, foreign woman, non-native English speaker, and scholar, potentially influences the research process in this study (Holmes, 2020; Ritchie, 2014). Potential limitations of research bias were minimised through continuous reflexivity, the triangulation of sources and methods of data collection, contextualisation, and evidence checks (Yin, 2009; Given, 2008; Gillham, 2000). Potential inaccuracies were also minimised with the recording of observations, conversations, and

impressions as soon as possible because of the frailties of human memory, which make it less accurate over time (Bryman, 2012; Gray, 2022). The researcher was also aware that taking fieldnotes during participatory observation is not always appropriate due to the fact that it may be difficult to take notes while participating, and it may make participants feel self-conscious (Bryman, 2012). Therefore, to remain as unobtrusive as possible, only a few jotted notes were taken during observations and full fieldnotes were written down or digitally voice-recorded at the end of each day in a secluded space.

It is important to consider that the researcher's presence as an *overt* participant observer is likely to influence how people behave and speak (Gray, 2022; O'Reilly, 2009). By remaining in the field for an extended period, the researcher intended to reduce any potential effects of her presence on participants' behaviour. Participant observation was undertaken for a total of 7 weeks (5 weeks in CS1 and 2 weeks in CS2). The researcher also sought to limit any potential distorting effects of her presence by volunteering for and participating in as many community events as possible in order to create rapport with participants. The development of rapport and trust between researcher and participants facilitates access, the co-construction of meaning, and improves data credibility as participants behave more naturally (Given, 2008; Leymarie, 2014). In addition, participation in volunteer activities was a means to express gratitude to community members for their hospitality and willingness to participate in this study.

Previous ethnographic and other case study-based approaches have combined observation with other methods of data collection to enrich the reliability and qualitative insights (Hammersley and Atkinson, 1995; Silverman, 2013; Yin, 2009; Flick, 2008). Building on these, in addition to fieldnotes from participant observation, this study collected data from its case studies by analysing documents and interviewing 'key informants'. These methods of data collection are commonly paired with participant observation.

Many of the communities studied by social scientists today are literate. 'Not only are their members able to read and write, but that capacity is also an integral feature of their everyday life and work' (Hammersley and Atkinson, 1995, p.158). As a result, 'written documents are one of the most valuable and timesaving forms of data collection' (Grant, 2019, p.124). Therefore, this study collected document-based data from its case studies, including their forestry plans and historical data from newspaper articles. Forestry plans provided detailed information about CWG's

medium- to long-term vision, while newspaper articles contributed to a greater understanding of these communities' past struggles and victories (particularly in relation to land acquisition). The forest management plans/strategies were requested and provided by the respective Project Managers by e-mail. Historical data was found in physical form in communities' archives or through online searches. CS2 had a large physical archive of newspapers documenting their land acquisition process, which was read and photographed during fieldwork.

Interviews 'are an effective means to learn from participants about their perceptions of and experiences with a study's topic' (Given, 2008, p. 433). This study conducted 12 interviews, 7 in CS1 and 5 in CS2. Interviewees were selected based on their involvement with their communities' forestry activities and snowballed through references. Included in the interviewees were current and past employees of the case study CWGs as well as community members involved in their local CWG activities, among whom were a ranger, a craftsperson, and a teacher. These formal interviews were conducted face-to-face at a location and time of the interviewees' choice and audio recorded with their consent. By recording interviews, the researcher is able to focus on developing rapport with the interviewee and on their dialogue rather than on taking notes. Moreover, audio-recorded interviews can be transcribed and revisited by researchers, reducing content loss and meaning misinterpretation (Brinkmann and Kvale, 2018).

Interviewees were asked about their personal histories of living and/or working for the local CWG. Every interview began with a question such as: 'Tell me about your job at (or your relationship with) the local CWG?'. Interviews were focused open-ended and lasted between half an hour and two hours. The design of the interviews was 'fluid rather than rigid' (Yin, 2009, p.106). The researcher used an interview guide prepared prior to the interview with the interviewees' relationship with their CWG in mind, but conversation was allowed to stray from the guiding questions. This fluid design enabled the researcher to follow relevant topics while giving interviewees the opportunity to introduce new elements and meaning to the topic at hand. For instance, all interviews concluded with the question: 'Is there anything you would like to add that was not asked?'.

An advantage offered by *formal interviews* in comparison to *informal interviews* (or field conversations) was that by recording interviewees' answers, their views could be presented in their own words as direct quotes. However, as previously stated, the setting and recording of formal

interviews can make interviewees' answers performative (Swain and King, 2022). There is a power dynamic between interviewer and interviewee that needs to be considered (May and Perry, 2022, p.152). Furthermore, any sort of data collection reliant on *verbal reports* is 'subject to common problems of bias, poor recall, and poor or inaccurate articulation' (Yin, 2009, p.108-109). A person's account of an event should not be taken unproblematically; 'interviews are constructed encounters in understanding and as such, data reflect not what *is* but what is *perceived*' (May and Perry, 2022, p.150). Therefore, it was important to explore, compare, and analyse these narratives with the experiences of other interviewees and other data sources (such as direct observation or documents).

As Neal and Walters (2006, p.180) note, social research is heavily reliant on the 'goodwill of people to become participants'. When conducting participant observation, the researcher is also reliant on the goodwill of research subjects to be accepted as part of a social scene. Access to the field is not limited to entry, but it involves passing social tests; these 'relate to clothing, habits, familiarity with key concepts and can be aided by legitimation, by being vouched for, or the establishment of trust' (May and Perry, 2022, p.176).

In this study, the researcher's presence was generally accepted as the possibility of her presence was discussed by community members before her arrival and officially authorised by the Project Manager. In both case studies, however, a few persons of interest were unable to be formally interviewed. While all these individuals were open to casual conversations and agreed to be formally interviewed when approached, the researcher noticed there was an implicit resistance to formal interviews. This was, however, not a major constraint, as most people of interest were successfully interviewed. The greatest acceptance issue was encountered during fieldwork in the second case study (CS2). While sharing a house with temporary workers (non-community members), it became evident that some of them did not appreciate the researcher's presence outside of working hours. This issue did not occur in the first case study (CS1), where accommodation was shared with volunteer workers (non-community members). It is, therefore, believed that the differentiating role of *researcher* and *volunteer* made some of the remunerated workers in CS2 uncomfortable with the researcher's presence outside of work hours. Having acknowledged this unspoken tension and the workers' right to privacy, the researcher avoided participating in conversations and staying in already occupied common spaces unless invited to do so.

Finally, in the academic literature, the main concern around case study as a method lies on the validity of generalising its findings (Yin, 2009; 2013; Crowe et al., 2011). This is because 'homogeneity across the sample and the population' (Gerring, 2006, p.20) cannot be assumed. That is, due to its very particular focus (the singularity of cases), the findings of a case study cannot be used to describe the reality of non-studied cases. As the focus of this study is not a particular CWG but rather the phenomenon of community-led forestry in Scotland, the researcher aimed to broaden the scope of the data collection beyond specific locales. First, a multisite case study was employed to avoid the 'radical particularism' of a single case study, hence enhancing the findings' generalizability, enabling comparative learning, and further supporting theory development (Herriott and Firestone, 1983; May and Perry, 2022). However, because the number of case studies that could be undertaken was limited (by COVID-19 restrictions), the researcher also expanded its range of data sources by conducting a comprehensive web-based data collection and document review, which are described in the next subsections.

4.3.2. Web-based data collection

The second phase of data collection consisted of a web-based search to obtain key information from the websites of as many Scottish CWGs as possible. The extensive web-based data collected in this study is used to supplement the in-depth data collected from fieldwork in the case studies. This data improves the representativeness of CWGs, but only to a limit. This includes findings about the basic characteristics of CWGs as well as their most prevalent goals and activities.

As noted previously, documents are a valuable source of data when studying literate groups of people. It is suggested here that collecting data from communities' official webpages is equally relevant in cultures that are not just literate but also digitally literate. As Robbins (2011, p.21) points out, there is critical information that can be found in the 'writing, blogging, filming, and advocacy of countless NGOs or activist groups around the world, surveying the changing fortunes of local people and the landscapes in which they live'. Such information is often only published on the webpages, blogs, or social media profiles of NGOs, activist groups, or communities. Therefore, in order to know more about what Scottish CWGs look like and do, this study employed web-based research to collect information about their basic characteristics as well as goals and activities.

Web-based research can be used to gather information about groups of people, individuals, or companies by examining their websites, blogs, and social media profiles (Bryman, 2012; Kurtz et al., 2017; Saunders, 2020). The amount of time spent locating appropriate websites is the first obstacle to implementing this method of data collection. This was not a significant obstacle for this study, as many CWGs' webpages were readily available on the Community Woodlands Association (CWA) website under the tab 'CWA members list'[28]. Each CWG webpage was accessed by clicking on their logo or name in this list. In the few instances where the link was broken, an official webpage was manually searched.

A number of organisations listed as CWA members were excluded from this data collection process for the following reasons: 1. Not being a CWG (such as councils and large charitable organisations); 2. Not being based in Scotland (but rather in England or Wales); and 3. Not providing enough information on their webpage (or webpage not found). *Appendix I* lists the names of all organisations that were excluded. Following the necessary exclusions, this method of data gathering enabled the researcher to obtain key information on a total of 128 Scottish CWGs.

The process of data collection consisted of accessing each CWG webpage – which included websites, blogs, and Facebook profiles – as well as searching for CWGs' names on the Scottish Charity Regulator (OSCR) website[29], and the Companies House website[30]. Official webpages and registries of the CWGs were scrutinised to collect specific bits of information concerning their characteristics, goals, and activities, which were then compiled on a table presented in *Appendix I*.

Because websites are constantly changing, either being updated or disappearing, it is crucial to establish the time frame for web-based data collection (Bryman, 2012; Saunders, 2020). This study's web-based data collection process was conducted during the months of April and May of 2021, when the entirety of its data was gathered. Therefore, any information edited, withdrawn, or added to the source webpages after the period of data collection is not considered in this study. Other concerns about the quality of documental data sources have been widely extended to websites, including questions about the authenticity, reliability, and purpose of data sources (Hine,

[28] Available at: https://www.communitywoods.org/our-members
[29] Available at: https://www.oscr.org.uk/
[30] Available at: https://find-and-update.company-information.service.gov.uk/

2000; Saunders, 2020; Kurtz et al., 2017). Each of these concerns is addressed in the following paragraphs.

To assure the authenticity of the data collected, information was obtained exclusively from official CWGs' Websites (i.e., webpages controlled and updated by CWG members) and official government websites (i.e., the OSCR and the Companies House, which contain CWGs' informed data). Therefore, all collected data was generated by CWG employees, volunteers, and/or community members. No external data, such as social media comments or posts about CWGs on unofficial websites, was collected.

The CWGs' webpages are considered primary source documents, as they were written by those who witnessed the events they describe. As primary source documents, they are more likely to give 'an accurate representation of occurrences in terms of both the memory of the author (time) and their proximity to the event (space)' (May and Perry, 2022, p.126). Furthermore, the data available in these webpages exist independently of this study and were collected 'without the traditional research sequence of stimulus-response' (Fielding, Lee, and Blank, 2017, p.38). This implies that the data gathered from these websites was nonreactive, which means that it was not modified to please the researcher conducting the study, as can occasionally occur with interview responses or participants' behaviour during observation. However, as outlined in the following paragraph, publicly available information tends to emphasise victories while omitting challenges or failure.

One limitation of any written report, however, is that they tend to emphasise victories and adapt the discourse for specific purposes (Bryman, 2012; Saunders, 2020). Hence, its data must be critically assessed. As Hammersley and Atkinson (1995, p.160) highlight, 'authors have a sense of audience that will lead them to put particular glosses on their accounts'. A 'positive gloss' was observed in the data made public by CWGs on their webpages, which was typically limited to the positive, successful, and attractive parts of their work. There was limited discussion of challenges faced by CWGs, setbacks, and in-depth information on how community members participate in the decision-making process. Overall, the content on CWGs' webpages indicates that they were designed to: 1. Raise awareness of the work CWGs do by documenting their activities; 2. Communicate with existing members about upcoming activities and perhaps inspire more people to become involved; and 3. Demonstrate the social and environmental significance of their

accomplishments while outlining their future goals in an effort to present themselves favourably to possible funders.

On the one hand, data gathered from websites lacked detail and depth when compared to data gathered via case studies – which provided insights not just into *what* happens but also into *how* processes occur. Web-based data collection, on the other hand, proved to be an efficient method for collecting information from a large number of communities, allowing the researcher to zoom out from the specificity of case studies to produce a more comprehensive picture of CWGs' characteristics, goals, and activities.

4.3.3. CWA's archives

The third phase of data collection was a systematic review of documents produced by the Community Woodlands Association (CWA). The CWA was established in 2003 – the same year the Land Reform Act was passed – as the representative body of Scotland's CWGs. Its mission is to assist CWGs to achieve their aspirations by providing support through consultancy and training, by networking CWGs through conferences, seminars, and newsletters, and by promoting and representing Scottish CWGs within the political arena and to the wider world. The CWA is a Scottish Company Limited by Guarantee and a Registered Charity managed by a voluntary Board of Directors which is annually elected by its voting members (i.e., CWGs only). The elected directors usually include members of CWGs, forestry professionals, and academics.

As part of their work, the CWA produces a variety of open-access documents (which were systematically reviewed as data for this study). This review encompassed a total of 251 documents, including newsletters, accounts, events and training reports, case studies and research reports, information sheets, and consultation responses that were produced between 2004 and June 2021 (when data collection stopped). These documents were publicly available at the CWA's website under the resources tab. The complete list of documents analysed is provided in Appendix II, where each document also received a unique referencing key that allows the source of the data to be identified in the findings chapters.

The relevance of written materials in the study of literate communities and organisations has already been established. According to Grant (2019, p.124), 'documents can shed light on areas

of interest in ways that might not be accessed through interviews or observations alone'. For example, they can offer new insights by shedding light on past events or by exposing the relationships between multiple actors.

> Documents can be seen as the sedimentation of social practices and have the potential to inform and structure the perceptions and decisions that people make on a daily and longer-term basis. They also constitute interpretations of social events. They tell us about the aspirations and intentions of the periods to which they refer; and describe places and social relationships at a time when we may not have existed or were simply not present. (May and Perry, 2022, p.124).

Grant (2019, p.125) suggests that in addition to considering documents written by 'insiders' – that is, those who are being studied – researchers should also evaluate materials authored by 'outsiders', which may have relevance to the group being researched. Therefore, what distinguishes the CWA's documents from the case study's documents and the web-based data collected in the present study is the unique angle they provide, an angle that sheds light on 'network analysis of inter-linkages between institutional actors' (Robbins, 2011, p.21). This 'outside' angle is important as a community is not only a group of people with specific relations and practices, but it is also a group embedded in society at large. The CWA is one of the social spheres within which many Scottish CWGs are embedded.

When analysing written materials, the researcher should consider how and for whom they were produced, what is included and excluded, and how the material is utilised. Many CWGs – who are members of the CWA – directly and indirectly participate in the production of the CWA's documents, and they are also informed and influenced by them. Thus, CWA's documents allow this study to explore 'how extra- or trans-local relations (sometimes called the ruling relations) enter into and coordinate what is going on locally and to discovering how those relations are put together in people's work'. (Given, 2008, p. 436). It also allows this study to see CWGs as a product of history formed through knowledge exchange and collective organisation among CWGs.

All of the CWA documents analysed in this study were unsolicited, i.e., they were not created specifically for this study but exist independently of it. The table below summarises how and for whom each of them was produced, as well as the relevance of their data to this study.

Table 4.3.3.: Description of CWA's documents.

Documents	Description	Relevant data
Information Sheets	These documents were produced by the CWA to inform CWGs about frequently asked questions. It covers a wide range of themes, including: 'getting started', 'community right to buy and asset transfer', and 'woodland management plans'.	These documents reveal some of the most basic and common struggles communities go through in order to establish and manage a CWG.
Case Studies	A number of case studies were carried out and documented by the CWA. These case study reports include 3 case studies produced between 2016-2019 (reported as short films), 18 case studies produced between 2012 and 2014 (which have individual reports), and 6 case studies produced in 2015 (which were grouped into a single report). These case study reports were either written by the community group or by researchers who visited the group; nonetheless, they were all validated by the respective community groups. Case study reports about CWGs not based in Scotland were excluded from the analysis.	These documents contain substantial information about particular CWGs. Thus, they enable the researcher to draw some comparisons between these CWA-conducted case studies and the case studies conducted in this study (CS1 and CS2).
E-bulletins and Woodland Voices magazine.	These documents inform CWGs about news, event notices, jobs, and funding opportunities in the community woodland sector.	These documents are viewed as conduits of communication. Their distribution reveals social networks and information about what CWGs have been doing.
Training Event Reports	These records summarise what was covered during training events, the number of participants, and their evaluations of the event.	These documents reveal areas of training needs, and CWGs' areas of interests for organisational development.
Conference and Networking Event Reports	These records outline the topics addressed during conferences and networking events, as well as activities such as field visits – which allow CWGs to learn from other communities by seeing/visiting their projects.	These documents reveal social networks, knowledge exchange among CWGs, and some of the main topics of concern/interest to CWGs as a collective.

Policy and Consultation Responses	These documents show how the CWA, acting as the representative body of Scotland's CWGs, responded to consultations from government agencies and from other consultants, such as non-profit or fund providing organisations.	These documents shed light on how the CWA represents and defends the interests of CWGs in the broader political context.
Research Reports	These documents explore topics of interest to CWGs, including resource sharing, timber products market, and funding or revenue generation opportunities.	These documents provided information on topics of relevance to CWGs, including managerial strategies and development opportunities.
Annual Reports and Accounts	These documents inform about CWA's achievements and performance, future plans, and financial activity.	These documents provide relevant information about the CWA's activities and their membership numbers.

4.4. Processing, analysing, and presenting data

Regardless of methodological approach, the purpose of qualitative research is to contribute to the general body of knowledge through theorization. However, there is no standard recipe by which to move from data to scientific theory (Flick, 2013; May and Perry, 2022; Blair, 2016). Nonetheless, there are some commonly taken steps to data analysis. 'Data analysis is a systematic search for meaning (…) It often involves synthesis, evaluation, interpretation, categorization, hypothesizing, comparison, and pattern finding' (Hatch *in* Leech and Onwuegbuzie, 2007, p.564).

In this study, the initial stage in preparing data for analysis was the conversion of all data to a textual format – that is, interviews were manually transcribed *verbatim* as soon as the fieldwork was finished. The remaining data was originally in a written format (fieldnotes, documents, and communities' webpages). Following this step, data was simultaneously filtered and codded.

Blair (2016, p.91) points out that researchers often feel like they are 'drowning' when first confronted with an enormous amount of data; this sensation 'is caused by information overload and an inability to make sense of it'. By filtering the data collected in this study, the researcher was able to reduce the amount of data to a manageable size, physically separating data pertinent to the investigated research questions from other data (Flick, 2013; Maxwell and Miller, 2012). This filtering procedure was adapted to each method. For instance, participant observation data was produced by the researcher in the form of fieldnotes – thus, it was already mediated by the research

interests during the data collection process. Likewise, when processing transcribed interviews and documents for analysis, the researcher separated the relevant data from the rest. This filtering procedure was carefully conducted in order to ensure all the relevant data, regardless of conflicting positions, was included in the database selected for further analysis. It is important to include all relevant data in the analysis to avoid selective bias (Yin, 2009; Flick, 2013).

As the data was being filtered, it was also being coded to find patterns and conflicts as a first step towards interpreting the data (i.e., making the data meaningful). This step involved a process of repeated and careful reading of the corpus of data 'in order to become thoroughly familiar with it' (Hammersley and Atkinson, 1995, p.210). This process of familiarisation through reading was not, however, applied uniformly to all data. The transcriptions of interviews and fieldnotes were read (in full) multiple times, but most documents and webpages were read (in full) only once (while being coded), followed by multiple readings of the coded extractions.

The data was coded using the qualitative data analysis software: NVivo. By coding the data, its original contiguity-based ordering was replaced with a similarity-based ordering – in an analytical process known as decontextualization and recontextualization of data (Flick, 2013; Starks and Trinidad, 2007; Blair, 2016). *Constant Comparison Analysis* was employed 'to identify underlying themes presented through the data' (Leech and Onwuegbuzie, 2007, p.565). The coding strategy employed was both deductive (e.g., codes are set and then searched in the data) and inductive (e.g., codes emerge from the data). That is, coding identified and organised data pertinent to addressing the study's initial research question (RQ3) while also allowing for the uncovering of patterns and themes that inspired subsequent research questions (R1 and RQ2). Following the refinement of the research questions through data coding, the researcher returned to the literature review to gain a better understanding of existing theoretical propositions relating to the problems emerging from empirical data. After improving her knowledge of the existing literature, the researcher revisited her data to verify and improve its coding.

Data analysis combined multiple sources of evidence (case studies, web-based data, and CWA's documents) to corroborate the same facts or contrast findings (Yin, 2009; Flick, 2013). Yet, sources were always identified when presenting evidence in the finding chapters. This practise of combined analysis is commonly known as *data triangulation*. Data triangulation not only provides a validity check for findings but 'also gives added depth to the description of the social

meaning involved in a setting' (Hammersley and Atkinson, 1995, p.230). In this study, triangulation combined different methods of data collection, different sources, and multiple case studies.

The analytical movement from 'within-case' to 'cross-case' analysis was based not only on the two case studies conducted in this study but also on cases carried out and documented by the CWA. By triangulating its own case study data with CWA's case study reports, the researcher was able to check the reliability of her methods and strengthen the validity and analytical generability of her findings. Generalisation in this study 'is not based on notions of selecting a "representative sample" in which the results reflect a wider population, but on "analytic generability" or "logical inference".' (May and Perry, 2022, p.211). In other words, generalisation does not equal all Scottish CWGs; rather, this study indicates that each CWG has distinctive characteristics and should be examined separately. Nonetheless, based on the obtained data, this study was able to establish certain assertions regarding basic characteristics and patterns common to Scottish CWGs and its socio-political context.

Lastly, clarification is required on the particular analytical approach used in Chapter VII to retrospectively apply/test the novel assessment model presented in this thesis. A comprehensive examination of Marxist and ecosocialist theory is paired with fieldwork experience in this chapter to create a novel socio-metabolic assessment model. The model is then deployed retrospectively to analyse the social metabolism shaped by the case study CWGs undertaken in this study. Because Covid-19 and time constraints precluded additional fieldwork, this application/testing was conducted retrospectively. This means that the model was tested on data gathered prior to the model's full development. As a result, in order to apply this assessment retrospectively, the data acquired from case studies was carefully analysed to identify pieces of data that would be useful to feed into the model. This data was identified, presented, and analysed in relation to the four model-defined indicators: (i) the use-value of goods and services; (ii) their social distribution/access; (iii) the standard of working conditions; and (iv) the standard of care for nature. These four indicators were then combined to provide an overall socio-metabolic assessment of each case study CWG contribution, or lack thereof, to fostering a healthier social metabolism. Consideration was also given to the constraints of the model's retrospective application, as well as suggestions for its future application and refinement.

All in all, the analysis conducted in this study scrutinised the data collected in order to produce meaning that was relevant to answering its research questions. As May and Perry (2022, p.184) contend, by interpreting data, 'we move away from what can be observed to more abstract entities'. During this stage, the researcher combined empirical evidence and her theoretical understanding of the problems raised in this study to produce a high-quality analysis. That is, analysis was focused on drawing empirically based and theoretically informed conclusions. In addition to that, the researcher sought to reflect on the limitations of this study and her analysis, taking into account alternate interpretations (based on other theories) and their applicability to the present study (Yin, 2009).

4.5. Challenges and limitations

This study was originally designed to be conducted through three in-depth case studies, where data was to be collected through participant observation during multiple visits to the selected case study CWGs. It was expected that each case study would be visited two or three times over the course of a three-year period, and each visit would be scheduled to take place when CWGs were particularly active – with operations such as timber harvesting, tree planting, seed collection, invasive species eradication, or any other activity led by CWGs. The length of visits was expected to add up to a month or two of participant observation in each case study. However, due to COVID-19 restrictions, participant observation could no longer be conducted as of late March 2020. Therefore, data collection was cut short, with only two case studies totalling 7 weeks of continuous observation in loco. The methodology had to be revised, and alternative sources and methods of data collection were selected to add to the data already collected through participant observation.

At an early stage of the research (pre-COVID), web searches and fieldwork conversations revealed two sources of relevant additional data: the CWGs' online pages and the CWA's extensive document archive. Once the COVID-19 restrictions were enforced, these online data sources were further explored, but there was still optimism that the global pandemic would be over shortly, and that fieldwork would resume. However, since these additional data sources had proven to be content-rich and the COVID-19 restrictions had not been lifted six months later, a mitigating strategy was designed to systematically gather and analyse these online and documental data

sources. As the findings show, these sources proved useful since they supplied unique data on scales beyond the local level, as well as intercommunity relations and collective organisation.

All methods of data collection and 'classes of data have their problems, all are produced socially, and none can be treated as unproblematically neutral or transparent representations of "reality".' (Hammersley and Atkinson, 1995, p.169, see also Freire, 2014; Ritchie, 2014; Baker, Eichhorn, and Griffiths, 2019; Silva, Lucena, and Síveres, 2021). However, stating that science is not neutral should not be confused with a lack of rigour or validity. This understanding, on the contrary, offers a critical appraisal of knowledge production that refuses to mystify the nature of knowledge and maintains it open for contestation.

By making use of different data collection methods and data sources, this study was able to see the research problem from multiple 'angles'. It is often argued that the triangulation of different methods or sources improves the reliability of findings when compared to single method and/or single data source research designs (Yin, 2009; Hammersley and Atkinson, 1995). However, the collection of data from different sources and using different methods rendered data analysis very challenging. 'Not only does this increase the scope of the research but it raises complicated issues about how to "map" one set of data upon another' (Silverman, 2013, p.63). To handle the complexity of too much data and multiple data sources, data analysis required a great deal of time and attention to combine evidence while distinguishing data sources and methods in the presentation of the research findings.

Data collection was also challenging; the role of participant-observer is often exhausting, requiring the researcher to pay constant attention and seek to become totally immersed in the social setting under study while remaining relatively detached from it (Creamer, 2015). Consequently, the role of participant-observer is mentally demanding. Moreover, because this study involved forestry work, participant observation was often a physically demanding method of data collection. Despite this, participant observation proved to be the most in-depth and insightful data collection method employed in this study.

Finally, it is essential to note that while this study considers the influence of CWGs' activities on the local environment, no physical data from the natural environment itself was collected (e.g., soil or water samples). Rather than laboratory analysis, assessments of whether the activities of CWGs are beneficial or detrimental to the environment were based on theoretically

educated premises and ethical values that can inform the forecast of the long-term impacts of their model of woodland management. For example, it was considered that the conversion of monocultures into biodiverse, native-species woodlands is beneficial to the ecosystem and that soil exposure to erosion caused by the clearfelling of large wooded areas is harmful.

4.6. Ethical considerations

Prior to commencing data collection, ethical clearance was sought from the Research Ethics Committee at the Department of Work, Employment and Organisation – University of Strathclyde. Therefore, this study was conducted in accordance with the University of Strathclyde's guiding principles of research ethics and integrity. To meet these ethical obligations, researchers must respect participants' rights to free and informed consent, as well as their privacy and confidentiality. In addition, researchers are obligated to assess the potential risks of the research to the participants, take measures to avoid any negative impacts, and inform participants accordingly (University of Strathclyde, 2008).

Participant observation is a particularly controversial method when it comes to obtaining informed consent (Musante and DeWalt, 2010; Murphy and Dingwall, 2001). In order to ensure participants' rights to free and informed consent, this study conducted participant observation *overtly*. The Project Manager in each case study was contacted by e-mail and received a Participant Information Sheet with information about the researcher conducting the study, the study's purpose, why their participation was important, how the study was to be conducted, the nature of their involvement in the study and the time it required, assurance of confidentiality, clarification on how the data would be stored and used, and an explanation that participation is voluntary and that consent to participate could be withdrawn at any time before the publication of the findings. Based on this information, the Project Managers in both case studies were able to give their consent to the research aims and methods on behalf of the community groups prior to the start of the fieldwork. Before formal interviews, each interviewee was also presented with the Participant Information Sheet and gave consent to being interviewed and recorded – by signing a consent form. On the field, it was not possible to obtain formal consent from everyone encountered; however, the researcher always introduced herself as a Ph.D. researcher conducting fieldwork in the community,

being transparent about the broad objectives and the methods of her study and open to answer any questions.

To ensure the privacy and confidentiality of participants, the real names of all places and persons in the case studies conducted in this study were concealed by pseudonyms. It is customary for individuals and even entire communities to remain anonymous in the publication of study findings. However, as Blackshaw (2010) points out, in community studies, it can be difficult to hide people and places – due to the community's small size/population. To avoid that specific community members could be identified on sensitive comments, all information provided by participants was examined for potential negative impacts to their social relationships. As a result, a number of minor pieces of information were further anonymised to prevent members of the community from being identified beyond doubt (Creamer, 2015; Murphy and Dingwall, 2001). Furthermore, the researcher respected the few instances where participants requested not to be quoted on specific comments.

Before undertaking the research, a risk assessment was undertaken in which the following areas were evaluated: physical harm, psychological harm, and harm through publication. This study did not anticipate causing or is aware of having caused any harm to participants. While children and the elderly were part of the community scene and were therefore occasionally part of observations, no vulnerable individuals participated as interviewees in this study, nor were they routinely observed. Therefore, their presence did not raise any ethical issues for conducting this study.

This study sought to maintain the privacy and confidentiality of participants in the field and unpublished fieldnotes (Musante and DeWalt, 2010). During fieldwork, the researcher was careful not to disclose the content of private conversations to other participants, and fieldnotes and consent forms were always kept inside a locked suitcase in the researcher's accommodation. After the fieldwork, the names of places and people were blacked out from the fieldnotes and substituted with pseudonyms. The privacy and confidentiality of participants will continue to be assured in any potential published materials. In compliance with the 2018 Data Protection Act of the United Kingdom, all fieldnotes and other documents containing personal information will be destroyed five years after data collection.

While most of the ethical considerations in conducting research pertain to the inclusion of humans as data sources, this study must also evaluate the ethical implications of online data collection from CWGs' webpages and CWA's documents. The gathering of data from these sources does not raise any ethical problems because all the information acquired was intentionally made public by its providers, and access to such data did not require the researcher to join a group or register to receive any information. Therefore, all the data collected from these sources was in the public domain (University of Strathclyde, 2020).

The researcher responsible for this study was financially supported by the University of Strathclyde as a recipient of the Research Excellence Award – Ph.D. Studentship. Furthermore, fieldwork travel and accommodation costs were covered by the Department of Work, Employment and Organisation, and by the Department Mechanical and Aerospace Engineering. However, there were no obligations to particular findings tied to any financial support received for this study.

Finally, ethics should involve more than just a paper trail of clearances and consents. The participants in this study were not seen by the researcher conducting it as mere instruments for data collection, but as human beings who volunteered to be a part of knowledge development. This view requires an ethics of care in how research presents and represents participants, as well as how findings can be shared with them (May and Perry, 2022). ‘Expert-based studies have been called ‘vampire projects’; they extract information from the members of a vulnerable group or community and give them little (a pain in the neck?) in return.’ (Root, 2007, p. 566). Furthermore, research findings are typically presented in a manner suited to the academy, ‘making it difficult for those unfamiliar with academic language to glean much useful information from research.’ (Blackshaw, 2010). To guarantee that the outcomes of this study are communicated to the participants, a summary of the findings was produced and is to be shared with them. This summary is free of academic jargon and reflects on the potential implications of this study's findings for the participating communities (see *Appendix III*).

PART III

– Presenting findings & implications –

CHAPTER V – TAKING ROOTS (RQ1 FINDINGS)

> *A tree has roots in the soil yet reaches to the sky. It tells us that in order to aspire we need to be grounded and that no matter how high we go it is from our roots that we draw sustenance.*
>
> Wangari Maathai

5.1. Introduction

As seen in the literature review (subsection 2.2.2.), the definition of 'community', as well as the form and degree of community participation, can all vary substantially. Determining these characteristics is therefore essential to comprehending who shapes a particular social metabolism. In light of this, this chapter addresses the question: *Who is the 'community' in Scottish CWGs, and how is this community organised for forest management?* It seeks to elucidate how the 'community' in Scottish CWGs is defined (who are the community members), how members participate in woodland management (including decision-making and implementation), what organisational form CWGs assume (how they operate), and what they aim to achieve as an organisation (their purpose, underlying values, and beneficiaries). This should offer a more comprehensive understanding of the inner workings of the Scottish CWGs, including what/who they are, how they are organised and function, as well as their purpose and the people who benefit from them.

First, this chapter investigates the precise meaning of 'community' in Scottish CWGs by clarifying the rules of inclusion and exclusion that define a community – i.e., who is and who is not considered a community member, and how they shape decisions about management and use of the woodlands (section 5.2.). Second, it seeks to better understand how CWGs are organised, focusing on how their members participate in decision-making processes, implementation actions, and other activities – i.e., when, how, and to what extent community members are allowed and encouraged to participate (section 5.3.). Third, it explores the most common organisational forms adopted by CWGs in Scotland and the reasons for that (section 5.4.). Finally, it investigates what the purpose of CWGs is and considers whether their goals primarily serve the needs, interests, and values of their community members, specific members, or external actors (section 5.5.).

This chapter concludes that the ‘community’ in Scottish CWGs is usually defined by geographical and political boundaries. Day-to-day decision-making is led by community elected representatives (i.e., the Board of Directors), while open channels of communication are maintained between the Board and the broader community. As an organisation, Scottish CWGs frequently assume the form of a charitable company, which enables them to enter into contracts, own property, and employ people while limiting their personal liability. However, despite operating as businesses, CWGs substantially differ from the capitalist business model as they are purpose-driven rather than profit-driven. As the data shows, CWGs are typically driven by both social and environmental goals, with a focus on improving living conditions in their communities.

5.2. Defining ‘community’

> It is all about having people that want to achieve something. And what you achieve will depend on the kind of people you’ve gotten, and the kind of interests and the motivations people have got. It is all about having people. (Woody, Forester, CS2).

This quote was Woody's response to the final interview question, 'What lessons are there for similar initiatives?'. His remark emphasises that the most crucial component of a CWG is its people; there is no CWG without a community. By saying this, he means that the first step for anybody interested in establishing a similar endeavour should be to assemble a group of people – not just anyone, but ‘people that want to achieve something’. Without people who are motivated by a cause, eager to fight for change, and willing to work, a community-led project cannot flourish. He also notes that the interests and motivations of individuals are intimately linked to the goals and achievements of a CWG as an organisation. Thus, to obtain a better grasp of what Scottish CWGs are, this section focuses on learning about the people that make up the 'community' in CWGs.

CWGs are referred to as ‘community’ because they are meant to be led by and serve the interests of a community (i.e., a defined group of people). They are referred to as ‘woodland’ groups because they manage (or help manage/preserve) a woodland, a woodland-to-be, or an urban green area or park. Communities in Scotland are typically defined geographically, and they tend to become involved in the management of woodlands within or near their geographical area. There are, however, some exceptions where CWGs are defined by interest rather than geography. Yet, it

is important to note that the concept of 'community of interest' was only officially introduced in Scotland in 2015 by the Community Empowerment Act. Thus, as highlighted by the Community Woodlands Association (CWA), most CWGs in Scotland 'are communities of geography: i.e., membership is open to all those who live in a defined area, or more precisely, all those registered to vote in local elections. (…) Some groups are primarily communities of interest: e.g., mountain bikers or green woodworkers' (CWA, IS1, p.2).

The 'community' in Scottish CWGs is therefore most commonly defined by geographical boundaries. This means that anyone living in a geographically defined area is considered a member of the community and has the right to participate in decisions regarding the management and use of woodlands. Some CWGs incorporate a temporal dimension into their geographical definition. For example, Case Study 1 in this study specifies that full members are individuals who have resided in the community for at least six months in the past two years. This specification is intended to exclude from decision-making those who own property in the community but do not actually live there.

Yet, while there are rules that define the community geographically, CWGs are often not exclusively composed by local residents. Instead, Scottish CWGs commonly offer two types of membership: *full membership*, which is available to adults who reside within the community's geographical area, and *associate membership*, which is open to underage local residents (between 12 and 17 years old) and non-local residents. The main distinction between these two categories of membership is that associate members do not have the right to vote in the election of the CWG's management committee (i.e., the Board of Directors). Outsiders can, however, participate in discussions as associate members or even become directors (if elected by the community). Nevertheless, to ensure that the community retains power over the CWG, the seat majority (in formalised CWGs) is reserved by law to full members (i.e., local residents). This means that, while associate members can be elected to the Board of Directors, their power is constrained by the number of seats.

Ultimately, the distinction in voting power and restriction on the number of seats seeks to limit the influence of outsiders on decision-making, ensuring that CWGs prioritise the needs and interests of the local community. Therefore, Scottish CWGs have also defined boundaries in

relation to those who can politically influence the complexity of its socio-ecological metabolic interactions. They are defined by both geographical and political boundaries.

However, while clearly defining who is and is not a full member of the community, CWGs are careful not to isolate themselves. This means that CWGs are open to dialogue with external stakeholders and supporters. The existence of an associate form of membership is an example of such openness. During fieldwork, community members highlighted that communication between CWGs and external actors is critical for making well-informed decisions and accomplishing goals – since they are not isolated from the world beyond their territorial boundaries. This becomes most apparent when managing environmental aspects that traverse political borders, such as rivers, the spreading of pests and diseases (e.g., ash dieback), and deer overgrazing. As Hawk, the Deer Manager in Case Study 2, explains:

> Being kind of a mixed objective foundation, we have primarily environmental objectives, but also community objectives. So, we have to take account of what the community wants to see in terms of the landscape and wildlife as well as national government objectives, and then also what the neighbouring landowners are doing as well. This is quite important obviously, because the deer being free ranging, if a neighbour has really different objectives can lead to conflict, and you have to kind of find compromises. (Hawk, Deer Manager, CS2).

This quote demonstrates that CS2 recognises the importance of communication, negotiation, and cooperation with other stakeholders (such as neighbouring landowners and government agencies) in achieving successful outcomes. The same recognition was indicated on the websites of other CWGs (albeit not all) and in some of the documents reviewed. However, the data showed that, despite recognising the importance of engaging with external actors, CWGs put the interests of their community first. As illustrated by the following excerpt: 'The group primarily serves the interests of the Craigentinny and Duddingston ward, and secondarily the interests of people from beyond those areas visiting Duddingston Field' (CWA, CS8, p.4).

In addition to geographical delimitations, membership criteria sometimes include a symbolic fee or relate to the level of active engagement. Some CWGs, such as the Gordon Community Woodland Trust, charge membership fees to raise funds for community projects: '[Full Members] are those resident within the parish of Gordon who pay an annual fee of £2 to the Trust. Others from further afield who wish to become members, may become Associate Members upon

payment of an annual fee of £1. Local businesses pay £10 per year' (CWA, CS13, p.3). Other CWGs, such as the Urban Roots Initiative, prefer not to charge fees to ensure accessibility: 'No membership fee is charged, which is a strategic decision to ensure the group remains accessible and open to all' (CWA, CS9, p.4). There are also more informal groups that do not have official membership but operate through direct/active participation, such as the Duddingston Field Group: 'membership is limited to people actively contributing to the group' (CWA, CS8, p.4).

Finally, while there are membership rules relating to area of residence, minimum age, and, in some cases, requiring a symbolic membership fee or active involvement, the data did not reveal any discriminatory tendencies among Scottish CWGs. This is pertinent since the literature on community-led initiatives reveals that, in certain contexts, power imbalances, such as gender discrimination, occur within communities (Agarwal, 2001; Lawrence et al., 2020). That is, in some cases, initiatives labelled as 'community' are in fact controlled by a few individuals within a given community. This creates social inequalities (within communities), hindering their ability to shape a healthier social metabolism.

The data collected in this study did not indicate any discriminatory subdivisions within CWGs in Scotland. That is, there were no instances of discriminatory subdivisions observed in the case studies conducted, nor were any instances reported in the CWA's documents analysed or in the CWGs' webpages accessed. This should, however, be examined on a case-by-case basis because discrimination typically occurs unofficially – that is, people may be welcomed on paper but not in practise.

Whereas the collected data did not reveal any discriminatory divisions within Scottish CWGs, one interviewee raised the issue of forestry being a male dominated sector of industry. When asked the question 'What do you hope to see for the future of forests in Scotland in the next 10 and next 50 years?', she replied: 'it would be nice to encourage more female foresters and have more women in the industry because I think that it would also change a little bit of how forests are seen and valued as well' (Dasy, Temporary Staff, CS2). It should be noted, however, that her comment refers to the forestry sector in the UK as a whole and not to CWGs specifically. The male dominance of the forestry sector was not the focus of this study, but it is likely to be influenced by cultural norms surrounding gender roles that equate the physical vigour required for forestry work with the masculine sex (e.g., the lumberjack figure). The commonly assumed fragility of the female

sex, however, contrasts with the services of the *Women's Timber Corps* in the UK during World War I.

The predominance of male workers was not statistically significant in the case studies conducted in this study, but a gendered role was observed, with predominantly (permanent) male workers performing more physically demanding, high-risk activities. In CS1, two employees were female and three were male. While numbers were not dissimilar, gender roles were quite distinct, with all male employees serving as chainsaw operators and females as Project Managers and Volunteer Coordinator. In CS2, there was one permanent female employee (the Project Manager) and three permanent male employees (the main forester and his assistants). In addition, there were six temporary employees, four women and two men, who were all involved in rhododendron removal (see Chapter VII).

5.3. Participatory mechanisms

In addition to understanding who the 'community' in CWGs is, it is important to understand how community members participate in decisions about management and use of the woodlands, as well as in other activities such as implementation actions and events. Thus, this section explores how CWGs work, focusing on when, how, and to what extent community members are allowed and encouraged to participate in decisions and other activities.

The notion of community engagement leads to the assumption that every community member participates in all decisions and activities of their CWG. However, research revealed that this assumption or expectation is not realistic. Most community members have many duties to attend to in their lives and play a limited role in decision-making and other activities within their local CWG. Yet, the belief among community members that their values and interests are effectively reflected in the organization's goals and activities indicates the influence of the community over their CWG.

Data shows that Scottish CWGs most commonly operate through a representative model of governance. CWGs' full members yearly elect a Board of Directors at their annual general meeting (AGM). The Board is in charge of day-to-day decision-making – and as previously stated, seat majority is reserved to full members. Based on the data collected (combining data from the case

studies conducted with CWA's Case Studies documents), it can be argued that most CWGs have between six to twelve office bearers. However, some groups have as few as two (i.e., the Chair and the Treasurer) due to 'a low level of interest in joining the Board within the community' (CWA, CS10, p.4). Office bearers gather on a regular basis (every four to eight weeks) to discuss community concerns and goals, develop plans, vote on project ideas, approve accounts, and make general decisions. Some Boards form subgroups to focus on specific tasks like fund-raising, community engagement, and event planning.

The Board is responsible for day-to-day decision-making, while the entire community needs to be involved in key decisions – for instance, in the process of land acquisition, the community organisation is 'required to demonstrate at least 10% support from their defined community for their proposed application to register an interest in land' (Scottish Government, 2016, p.7). Furthermore, the Board must maintain open channels of communication with the community to ensure that their decisions reflect the views and interests of the community they represent. Multiple communication channels, such as open meetings, suggestion boxes, and consultations, are utilised by boards to facilitate such dialogue. Moreover, directors are usually well-known within their communities and 'often interact with community members on an informal basis.' (CWA, CS8, p.4).

Directors may attempt to stimulate community engagement if communication does not occur organically. However, CWGs' capacity to promote community engagement is limited, as illustrated by the following statement:

> The group feels it represents members of the community who have an interest in using the woodlands that surround the Lionthorn housing district. There is recognition that *it only represents the views of those who volunteer to take part* and this approach means there are inherently sectors of the Lionthorn area and communities further afield that are not involved. However, *these limitations reflect the limited resources of the voluntarily run association*. (CWA, CS18, p.4, emphasis added).

Data showed that this can be particularly challenging in urban areas (such as in the example above) due to high population density, as well as in cases where community members do not live in the community but only own property there (as in CS1 and CS2). This indicates a process of alienation linked to class inequality, dispossession, and community dependence on external conditions (e.g., access to jobs and education) to ensure their social reproduction not only in more immediate

conditions but also in their future expectations. As the preceding quote demonstrates, community boards often lack the time and/or financial means to mitigate this issue. A lack of participation hinders the collective management of woodlands and the co-production of an alternative social metabolism.

However, low levels of community engagement are not always indicative of these problems. This is because the level of community engagement tends to fluctuate. CWGs require more community support at specific moments, such as when advocating for land acquisition, drafting strategic plans, or hosting volunteer days. At other times, however, full community participation is not required, such as when carrying out bureaucratic procedures. As illustrated by Rose's account, the extent of community involvement varies over time:

> [In earlier days] there was only 60 people who lived in here, so everyone [was involved]. It was very exciting and scary at the same time because everything was so uncertain and, at the same time, there was so much opportunity there. So, just *everyone in the community would get involved in talking about the plans and the hopes and stuff*. But now, 21 years down the line, *things have changed.* I suppose partly because we've done an okay job doing what we do, *people feel less inclined to always get involved*. When we reviewed the forestry plan a couple of years ago, we did and we made sure people came out and go to the glen, walk around the woods, did workshops and stuff. But quite often people don't really [get involved anymore]. *Unless they object something, they don't get too involved.* But we do volunteer days and things like that. (Rose, Project Manager, CS2, emphasis added).

As the project manager, Rose attributes this change to three factors: (a) closer social ties resulting from a smaller population formerly residing in the community; (b) a greater level of excitement associated with the early stages of the creation of a CWG; and (c) an increased level of trust that those directly involved in the CWG (i.e., staff and directors) gained from their wider community over time. A similar experience has been reported by Wooplaw Community Woodlands, where 'energy levels and hence activity, has been cyclical rather than linear' (CWA, CS14, p.14). In Wooplaw's case cyclical levels of participation have been associated with 'an issue of "volunteer fatigue" and changing volunteer motivations' (CWA, CS14, p.15).

Data indicates that fluctuations in community engagement relate to necessity. The examples above indicate that maximum engagement and participation took place at the early stages of the creation of a CWG (prior to, during, and soon after land purchase). Greater community

involvement at the outset of a CWG reflects a greater need for community involvement – at a time when many decisions have to be taken, plans developed, and community support is critical to advancing plans. Still today, as Rose has highlighted, greater community involvement is sought and received when it is needed, such as during the revision of the forestry plan. The same was observed in Wooplaw, where 'bursts of activity' and community participation take place when it is most needed, such as for the community's 25th anniversary celebration in 2012 (CWA, CS14). Furthermore, as Rose observed in the quote above, community members are likely to get directly involved when they object to something.

Thus, once again, the importance of internal channels of communication becomes apparent. Communication is key to effective and inclusive community-led organisations. Diverse channels of communication should exist in both directions: (a) from the community to the Board to inform directors of the community's concerns and interests, enabling them to work towards the fulfilment of a collective forestry vision; and (b) from the Board to the community to allow community members to participate in activities or to object to proposals and decisions. Being aware of that, there are a number of strategies CWGs employ to keep their community informed about ongoing activities and to ensure the transparency of administrative procedures, including: making meeting minutes and accounting records public, promoting their activities and events via e-mail newsletters, website or blog, social media (such as a Facebook page), flyers/posters, and word of mouth.

Yet, despite the efforts of the Board of Directors to ensure community members have diverse opportunities to participate and to voice their opinions and concerns, some community members might not be willing to or do not feel comfortable taking a stand. Challenges exist for communities to move beyond hegemonic practises that are *embedded in* policy development and project management obligations. For instance, in CS1, one of the community members confided to the researcher, in an informal conversation, that he/she completely disagrees 'with the amount of money that goes poured into the woodfuel business' (fieldnotes, CS1). However, when questioned about whether this disagreement had been conveyed to the Board, he/she explained that it could be done, but he/she did not have the time to pursue it. This reinforces that the structures of governance favour informed and consulted community members, but the active interest and practical engagement of members are compromised due to their individual circumstances and the more immediate needs of the community for their social reproduction.

5.4. Organisational form

The organisational form adopted by CWGs and how they operate are not just determined by their community members but also by the legal structures and national policies in which they are embedded. This section examines the most prevalent organisational forms adopted by CWGs in Scotland within their regulatory context in an effort to comprehend their significance and the reasons for their prevalence. It also reflects on whether the regulatory framing of CWGs limits their potential to promote an alternative model of forest governance with the purpose of shaping a healthier social metabolism.

CWGs can assume six types of organisational form – two unincorporated: Voluntary Association, and Trust; and four incorporated: Company Limited by Guarantee, Community Interest Company, Community Benefit Society, and Scottish Charitable Incorporated Organisation. Incorporated forms have the advantage of constituting a *legal entity* that can enter contracts, employ staff, own property, sue and be sued, and incur debts. Without this legal status, any formal contracts must be made in the name of individuals, making them personally liable for debts and lawsuits (CWA, IS2).

The data presented in *Appendix I* showed that the most common organisational form adopted by CWGs is that of a *charitable company*. Company Limited by Guarantee (CLG) with a charitable status (Registered Scottish Charity). That is, most CWGs are *charitable companies*. From the 128 communities compiled in the appendix table, 69 are a charitable company – that is, they are a CLG, which is also a Registered Scottish Charity. Other than that, 29 CWGs are a SCIO, 4 are CLGs (without charitable status), 2 are Community Interest Company, 9 are unincorporated associations, and the information could not be found for 16 communities.

The predominance of the charitable company form is due to specific benefits and policy incentives. The CLG offers the benefit of being an incorporated organisation, allowing CWGs to enter into contracts, employ staff, and own property, while providing limited liability – which enables directors to set a nominal amount (as low as £1) for which they would be personally liable in the unfortunate event of bankruptcy. Furthermore, the adoption of the CLG form was encouraged by many organisations and public policies in Scotland between the 1990s and early 2000s.

> The company limited by guarantee became the "standard" company form in the community land sector in the 1990s, as

> emerging groups were encouraged to adopt the CLG form by statutory bodies (e.g. the Community Land Unit of Highlands and Islands Enterprise) and funders (e.g. Scottish Land Fund). (…) The use of CLG was formalised in 2003 by the Land Reform (Scotland) Act, which requires that community bodies are incorporated as company limited by guarantee. (CWA, CS1, p.9).

The charitable status, on the other hand, offers benefits such as exemption from Corporation Tax, greater access to funders, and stronger public support. Moreover, charity status can be granted to an existing organisation such as a company, trust, or unincorporated association. Hence the tendency for CWGs to assume both a company and a charity form, becoming a charitable company.

The Companies House clarifies that companies limited by guarantee (CLG) are typically 'not-for-profit', meaning that they are legally separate from the people who run them, have separate finances from personal ones, have guarantors and a 'guaranteed amount', and reinvest profits back into the company. The charitable status also indicates that an organisation is not-for-profit. To receive any form of charitable status, an organisation needs to meet the Scottish ‘charity test’. To pass this test, organisations must: (1) demonstrate that they have only charitable purposes; (2) demonstrate that their purposes provide public benefits; (3) demonstrate that they were not established to be or advance a political party; (4) preclude the use of their assets (cash or property) for non-charitable purposes; and (5) their governing documents must allow Scottish Ministers to direct or control their activities.

The charitable company form has the downside of being regulated by both the Scottish Charity Regulator and Companies House, making it difficult for individuals to properly comprehend their dual responsibilities as both a charity trustee and a company director. Therefore, in April 2011, the Scottish Government introduced the SCIO form to enable charities to enjoy the benefits of being incorporated without the burden of reporting to two regulators – instead, reporting only to the Scottish Charity Regulator. However, the data collected in this study shows that the majority of CWGs continue to be a charitable company.

Despite operating as businesses to provide goods and services to their community and create employment and revenue for community projects, CWGs are purpose-driven rather than profit-driven – which is a substantial departure from the capitalist business paradigm. That is, individuals cannot accumulate profits from CWGs; instead, profits are re-invested in community projects to help deliver the non-profit objectives of the organisation. The following quote – in the

context of CS1's struggle to find the best suitable solution for their mature Sitka problem – illustrates this rejection of the *profit-seeking status quo*.

> We are just trying to find out our way with things… trying to find a good fit and a good solution for the community, because *it is not so much about making a profit out of this*, it is about making sure that the resources are used in the best way possible. (emphasis added, Heather, Project Manager, CS1).

Furthermore, CWGs do not pursue perpetual growth – that is, the expansion of production and markets – because they are not profit oriented. The following comment from a CS1's interview illustrates this point in the context of Sitka spruce harvesting: 'Ultimately, the idea is that we wouldn't have to keep doing things [i.e., felling operations] on such a large scale, but instead to scale down to the community's needs.' (Heather, Project Manager, CS1). As will be detailed in Chapter VII, the current large-scale Sitka spruce felling activities in CS1 are part of a plan to prevent windblow and re-establish a natural and biodiverse woodland.

5.5. Common goals

This section explores the purpose and motivations of CWGs, focusing on what they hope to achieve by getting involved in forestry. This is a crucial consideration when analysing if a community-led initiative is genuinely bottom-up and the extent to which their involvement in forestry projects relates to their intention to transform their social metabolism. That is, the reasons why communities decide to form a CWG and whether their aims serve the needs, interests, and values of the entire community, specific individuals within the community, or external actors. Also, whether their goals consider and respect the needs of non-human beings and ecosystems as a whole.

Scottish CWGs engage people from all walks of life, living in a variety of circumstances and geographical places (rural and urban), and as such, they present a broad spectrum of motives to become involved in woodland management. The Community Woodlands Association (CWA) highlights five common triggers for community interest in woodland management:

> • A desire to generate economic activity: community forests can become a hub for rural development;

> • Concern about neglect of a valued local resource: e.g., windblow, lack of path maintenance;
>
> • Ideas for activity in a woodland: e.g., forest school or a community woodfuel business;
>
> • The announcement of the sale of a woodland e.g., by Forestry and Land Scotland;
>
> • The desire to create a new woodland e.g., for amenity or shelter. (CWA, IS1)

This diversity reflects each group's unique needs and interests. When seen collectively, however, CWGs have more similarities than differences. 'Whatever the start point or circumstances, the common principle for all community woodland groups is that they are all seeking to manage their woodlands for the benefit of their local communities' (CWA, IS1). Therefore, 'CWGs usually share a common vision that sustainable forestry can help build sustainable communities' and that 'one of the best ways to achieve this is to put communities at the centre of the decision-making process.' (CWA, CNE32, 2006).

The data shows that CWGs' main motivation to form is the identification of specific community needs or challenges, as well as the identification of opportunities in the form of policy changes or local resources that could be (better) employed in attending to community needs or overcoming challenges. The following quote illustrates this:

> There were lots to be done and seemed as a potential for providing the community with jobs, income, and also as a natural resource that was beautiful and overlooked. (Rose, Project Manager, CS2).

This quote demonstrates that the community was able to recognise local needs (jobs and income), identify local resources (*overlooked* natural resource, i.e., woodland), and envisage how the said resource could be better cared for while attending to local needs. Importantly, Rose uses the term 'overlooked' to highlight that a lack of proper management had forsaken the woodland to decay, mainly caused by deer overgrazing and invasive species (particularly *rhododendron ponticum*). Therefore, the notion of 'overlooked' employed here differs from the age of improvement concept of 'wasteland' as it focuses on the harm caused to the environment and local livelihoods, instead of focusing on 'wasted' economic potential of a given resource. In other words, the well-being of the environment and local community is at the centre of her concerns.

This rationale illustrates how, from the perspective of community members, CWGs arise from the collective interest to address local needs and socioenvironmental challenges – such as deer overgrazing and invasive species. Another example is the problem of maturing Sitka monocultures becoming prone to collapse due to windblow in their mature stage. This collapsing Sitka was planted close together in rows as even-aged monocultures during the 1980s (see subsection 2.4.2.). The Sitka windblow problem affected both CS1 and CS2 and was reported (in the documents and webpages examined) to occur in several other communities in the Highlands. This shows how ill-considered the Sitka planting rush of the late 20th century was and its long-standing social and ecological impact. As a community member pointed out, 'under incentives from the government, Sitka spruce monocultures were planted anywhere, regardless of site suitability or harvest feasibility' (field notes, CS2).

In addition to internal motivations, CWGs are significantly motivated by external incentives, such as the sale of a woodland, community engagement policies, and funding opportunities. Both internal and external motivators contribute to determining CWGs' goals. The data gathered for this study (see *Appendix I*) allowed the following goals to be identified as the most prevalent among CWGs in Scotland:

(i) To increase and improve access to cultural, educational, and recreational amenities and activities;
(ii) To conserve and restore Scotland's natural heritage, ecosystems, and biodiversity;
(iii) To promote community/sustainable development;
(iv) To create local employment and opportunities for small businesses development based on timber and non-timber products and services, and to promote training (particularly among young people and the unemployed);
(v) To prevent or relieve poverty, food insecurity, fuel poverty, and to provide affordable housing;
(vi) To advance local citizenship, community involvement, volunteering opportunities, and to develop the spirit of community.

These six categories of goals were endorsed by more than a third of the CWGs analysed in this study. That is, at least 42 of the 128 CWGs listed in the *Appendix I* have declared to pursue goals within each of these six categories. The percentage support rate for each category is depicted

in the graph below (Fig.5.5.). This is evidence that CWGs are driven by social and environmental goals that generate public benefits.

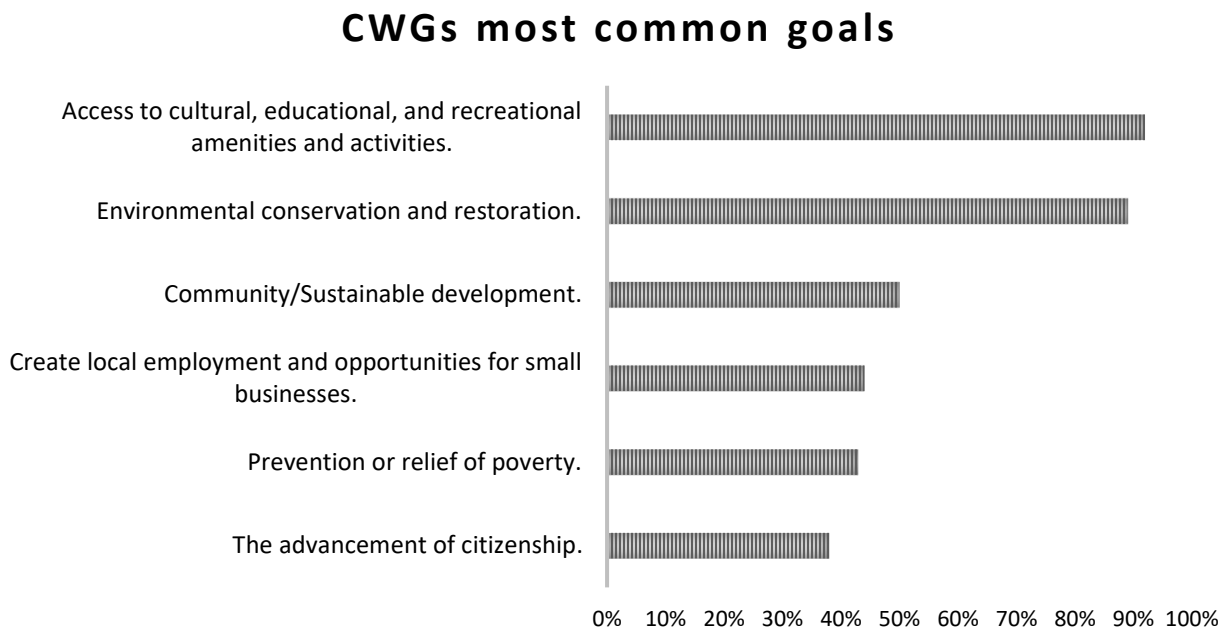

Figure 5.5. The six most prevalent goals of CWGs in Scotland, as measured by percentage of community support.

In addition to these six most prevalent goals, there are other goals that relate to specific circumstances or local sociocultural context. For instance, 15% of the CWGs expressly stated their goal of '*advancing health'*, particularly those active in the development of sports facilities and activities, the promotion of mental health activities, and of healthy eating habits. However, the advancement of physical and mental health can be considered an implicit goal of most CWGs, as it is co-delivered by the six prevalent goals outlined above. Access to nature-based recreation, for example, benefits both physical and mental health. Likewise, the goal of '*restoring or improving the relationship of the community with the woodlands'* (or their natural environment in general) was stated by a few CWGs, for example, as the aim 'to inspire and educate the Community about the biodiversity and protected species of the woodland'. Despite the low pledge, the majority of CWGs promote eco-friendly behaviour changes such as composting, litter picking, recycling, and cycling. Additionally, it should be noted that there is some overlap between the six prevalent goals identified; for example, both the objective 'to create local employment' and the objective 'to prevent or relieve poverty' strive to guarantee people have a means of livelihood.

(i) Access to cultural, educational, and recreational amenities and activities.

The most common goal identified is the provision and improvement of outdoor spaces and activities for cultural, educational, and recreational purposes. Similar findings were reported in a recently published paper by Dunn, Ambrose-Oji, and O'Brien, 2021.

Many CWGs frame this goal as follows: 'To provide, or assist in providing, recreational facilities, and/or organising recreational activities, which will be available to members of the Community and public at large *with the object of improving the conditions of life of the Community*' (emphasis added, see *Appendix I*). In addition to recreational purposes, improvements to greenspaces in both urban and rural areas are commonly sought to provide or enhance opportunities for nature-based outdoor education, cultural events, physical exercise, and mental health benefits.

Many CWGs consider such spaces to be highly relevant for educational purposes, as the Borders Forest Trust highlights: 'Teaching children and young people to value wild places, and giving them the confidence to be outside safely, is wonderful for children and vital to ensuring land is cared for into the future' (see *Appendix I).* They believe that contact with greenspaces fosters affective bonds between people and nature, promoting pro-environmental behaviour. Furthermore, these spaces also serve to promote cultural heritage conservation via history/heritage trails, workshops in traditional and rural skills, and even 'Gaelic alphabet learning' (Culag Community Woodland Trust Ltd., *Appendix I*).

Studies in the fields of medicine and psychology (Steg, Berg, and De Groot, 2012) have linked access to greenspaces with the improvement of human health and well-being, as stated previously (see section 2.3.1). CWGs are aware of these benefits. In 2009, the CWA hosted a seminar titled 'Roots to Health' that 'focused on using and developing community woodlands to deliver health benefits, and explored the numerous ways in which community engagement with forestry can contribute to physical, mental and social wellbeing' (CWA, CNE30, 2009).

For community members, the value of woodlands and other greenspaces for human physical, mental, and social health gained greater prominence during the COVID-19 lockdown in 2020, since open-air, safe distancing areas became the best option for socialising, exercising, and leisure. Other than improving access, trails, and facilities in woodlands and other greenspaces, some CWGs actively facilitate and incentivize a healthier lifestyle by running health-focused

activities – for instance, walking groups for residents and outdoor activities for specific groups such as those living with dementia (see *Appendix I).*

Finally, data showed that improved access to greenspaces tend to increase property value and contribute to the local economy by attracting tourists to the area. While this indicates a process of further commodification, CWGs in remote rural areas rely significantly on tourism as a source of revenue. Therefore, the creation or improvement of such spaces is also commonly motivated by financial interests.

There are a variety of actions CWGs employ to improve access to cultural, educational, and recreational amenities and activities in their woods and other greenspaces. These actions vary according to the type of access restriction, which can be classified into three categories: (a) *physical limitations* to access are commonly addressed through the creation of access points, paths (including all-abilities paths), bridges, stairs, etc.; (b) *safety concerns* (including environmental and social threats to personal safety, both perceived or real) are addressed through activities such as safety inspections of trees, paths, and buildings or sites of architectural, historic or other importance to the community, path signalling and difficulty grading, parapet installation where necessary, and by reclaiming public spaces from crime and public disorder[31] through awareness campaigns and the promotion of social activities; and (c) *lack of activities, events, or facilities to enjoy* are addressed by the promotion of school visits, forest schools, playgroups, clubs and other educational, cultural, and artistic activities or events, and by the creation of facilities such as picnic, playground, camping, mountain bike trails, barbeque and firepit areas, the installation of benches, temporary shelters, and composting toilets.

CWGs claim that they integrate (by design) their amenities and activities into the natural environment – since the purpose of such amenities and activities is to facilitate public enjoyment of the outdoors. Therefore, implementation is designed to cause no harm or minimal disturbance to local fauna and flora, preserving the integrity of ecosystems. In fact, the process of improving greenspaces often includes the creation of habitat for wildlife – by creating artificial ponds, installing bird/bat boxes, and planting native species, among other environmentally friendly activities.

[31] These include vandalism, littering, alcohol and drug abuse, and sexual assault.

Most amenities and activities developed by CWGs are free and open to all – except for fundraising events, which may charge an admission fee. Hence, the resulting benefits are public. CWGs typically say that all their objectives 'are to benefit all the residents of [the area], neighbouring communities, and visitors to the area' (see *Appendix I*). However, communities also describe the challenges of becoming responsible for such greenspaces. Self-built trails, for example, may expose CWGs to liability due to 'ill-conceived or poorly managed trails and infrastructure' (CWA, TER10). Therefore, communities must consider the long-term maintenance costs of their projects – 'who is going to be responsible for maintaining the path?' (CWA, TER11).

(ii) Environmental conservation and restoration.

Another common goal of CWGs is the environmental restoration and conservation of Scotland's natural heritage, ecosystems, and biodiversity. Gradual ecological clearance reduced Scotland's forest cover to less than 5% of the national territory by the turn of the twentieth century (see section 2.4.). Several species of wildlife and flora have become extinct as a result of this forest loss, and many others are on the verge of extinction. CWGs have helped to prevent further losses and have attempted to restore them where possible.

There are a variety of means CWGs employ to promote the wellness of their natural environment, which can be classified into three categories: (a) Activities of *damage control* aim to control or eradicate invasive species, pests, and diseases, and to monitor fauna and flora population numbers and health; (b) Activities of *restoration* aim to restore and expand native woodlands, creating and improving habitat for wildlife (especially endangered species); and (c) Activities of *transformation* aim to improve human behaviour and use of natural resources, reshaping activities towards more sustainable practices, promoting behavioural changes, and educating people about Scotland's wildlife and ecosystems.

Concrete examples of *damage control* activities observed during fieldwork include: the eradication of rhododendron and the control of deer overgrazing (observed in CS2); as well as the installation of traps to reduce the large population of rats that were menacing the seabird population (observed in CS1). Furthermore, both CS1 and CS2 have the support of a locally residing ranger that gathers information about local wildlife, including species and population numbers recording, and diseases tracking.

Restructuration of even aged monocultural plantations (mainly Sitka Spruce) to diversity species and age structure is a common example of *restorative* activity. This was a central task in both CS1 and CS2, as well as many other CWGs (particularly those in remote rural areas; see Appendix I). CWGs often accomplish so by phased clear-felling most of the plantation and re-stocking the area with a more diversified selection of natural woodland species. Other restorative activities include planting trees, shrubs, flowers, and other non-wood plants (mostly mixed native species), thinning the woodland areas to enhance light for woodland biodiversity, beekeeping, and creating ponds and nest boxes for birds and bats. There are also some cross-community efforts to create wildlife corridors or steppingstones across Scotland through woodland creation and appropriate management.

Transformational activities include those that consciously aim to shift woodland management, infrastructure, and human behaviour towards a healthier socio-metabolic relationship. These include modifying woodland management plans and procedures to achieve a higher level of environmental protection. That means managing woodland in such a way that it can continue to produce timber of a high standard to meet community needs (e.g., woodfuel, utensils, furniture, and building materials) without compromising the wellness of the ecosystem, other species, or future generations. This includes avoiding harmful practises such as 'the use of pesticides like neonicotinoids and herbicides like glyphosate' (Mull and Iona Community Trust, *Appendix I*). It also includes the advancement of public education in environmental matters in order to promote behavioural changes such as encouraging people to transition away from fossil fuels (e.g., by replacing coal with locally sourced firewood), eliminating single-use plastics, promoting local food growing, composting, litter picking, re-cycling, cycling, and other eco-friendly attitudes. The following quote illustrates the promotion of such behavioural changes:

> Developing community projects, including Active Travel and Cycle Hub (which promotes walking, cycling, bike repairs, and car sharing), Food and Growing (which runs several Community Gardens and encourages people of Coupar Angus to grow and use more Local Produce, Cook Better, Eat Better and Live Better by promoting cooking classes and festivals), and Climate Literacy (which, via a series of Climate Literacy workshops, aims to encourage members of Coupar Angus to understand the importance of making an individual commitment towards reducing the impact of climate change). (Forward Coupar Angus, *Appendix I*)

Overall, by promoting ecological well-being, CWGs promote human well-being, as human quality of life is dependent on healthy habitats. Many CWGs emphasise that any activity must 'balance with the primary objective of conservation.' (see *Appendix I*). Therefore, environmental protection is more than just a goal for CWGs; it is a guiding principle that influences any other goals.

(iii) Community/Sustainable development.

The third category of goals commonly pursued by CWGs in Scotland relates to the notion of *development*. However, despite being a prominent goal of CWGs, the meaning of 'development' is not well defined by communities. The data shows that the term 'development' is frequently used by CWGs combined with two adjectives: 'community' and 'sustainable', which bind the notion of development to social and environmental concerns.

It can be inferred that the term 'community' qualifies development in two distinctive ways: (a) as something occurring in a specific geographical locality, and (b) as a sort of development based on local culture and values. On the other hand, 'sustainable development' is commonly defined by CWGs as 'development which meets the needs of the present without compromising the ability of future generations to meet their own needs' (see *Appendix I*). This shows a clear influence from external actors, as these communities have adopted the Bruntland Commission's 1987 definition of sustainable development. The adoption of such a standard definition obscures contextual and value-specific nuances in communities' understanding and use of this concept. However, it can be inferred that the term 'sustainability' adds temporal, generational, and ecological dimensions to the notion of development.

Together, the terms 'community development' and 'sustainable development' refer to the goal of creating or improving local infrastructure and services to meet community needs based on cultural values without jeopardising the integrity of local ecosystems or future generations' ability to meet their own needs. CWGs work towards this goal by preserving, improving, and regenerating their community's infrastructure 'in a way that respects and enhances the Community's local culture, social traditions and built heritage, as well as the local and global natural environment' (see *Appendix I*). Hence, the adjectives 'community' and 'sustainable' qualify the kind of development CWGs seek to promote, while the term 'development' refers to goals pertaining to

the improvement of physical structures (e.g., roads, bridges, harbours, and buildings) and services (e.g., power/woodfuel supply, waste management, forest schools, local shops).

Examples of CWGs promoting the development of their communities include the creation and improvement of structures – such as roads, parking areas, sheds, and buildings – as well as services – such as local woodfuel supply chains, micro hydro/wind/solar renewable energy schemes, forest schools, health promotion activities, and cultural events. Some CWGs view community land and building purchases as a means of development because it allows them to develop these locations in accordance with local demands. They believe that community/sustainable development can be achieved 'by encouraging community cooperation, development and resilience through activities related to land and its management' (see *Appendix I*).

Overall, data indicates that CWGs focus on making their community 'a better place to live, work and visit by managing the community land and associated assets for the benefit of the Community and the public in general' (see *Appendix I*). However, while willing to actively contribute to the local development, CWGs stress that their involvement 'shall not extend to relieving any local authorities or other bodies of a statutory duty' (see *Appendix I*).

(iv) Local employment and opportunities for small businesses.

The fourth most common goal refers to the creation of local employment and opportunities for small-business development based on timber and non-timber products and services, and the provision of training opportunities (particularly among young people and the unemployed). This goal is closely related to another frequently stated goal of 'urban and rural regeneration' (see *Appendix I*), which means to counteract patterns of depopulation and abandonment of such communities.

CWGs in deprived urban areas as well as those in remote rural areas often have the goal of generating employment. CWGs in both areas strive to create jobs for local people, reduce living costs (by developing local, low-cost products and services), and help individuals and the community (as a whole) become more self-reliant. However, there are some differences in how this goal is pursued by urban and rural communities. In urban areas, most people rely almost exclusively on their income to survive. Thus, CWGs focus on providing training opportunities and

supporting small-businesses to help people secure a livelihood and counteract social marginalization. In rural areas, on the other hand, while most people also rely on a source of income, they frequently complement their income with activities such as food growing. The challenge in these areas is to create long-term employment opportunities to avoid youth emigration to more urbanised areas.

There is a variety of means CWGs employ to promote local employment and businesses, including: (a) Creating local community owned businesses which generate direct and indirect employment while developing local processing and markets for timber and non-timber products; (b) Creating formal training and peer-to-peer learning opportunities, including woodworking, farming, crafting, traditional building, land management, ecology, and other skills; and (c) Supporting local small/micro business by providing affordable office and workshop spaces, land and resources for use on favourable terms, community tools shed (where tools, equipment, and guides/books are shared), and community-owned shop (where products from local businesses can be sold).

Furthermore, community-owned businesses (established and managed by CWGs) create employment for local people. Data shows that CWGs' activities are typically carried out by workers under three forms of labour contracts: (a) Volunteer labour; (b) Direct employment; and (c) Consultancy work (or indirect employment). CWGs use these forms of contract based on the type of work to be performed and their financial resources. Some positions are expected to be filled by volunteers (such as the Board of Directors), whilst others require paid employees due to the time commitment and/or specialised skill level. Some CWGs are able to directly employ a small number of workers – through grants or their own revenues – to execute specific tasks (temporary contract) or fulfil time-intensive roles that cannot be consistently fulfilled by volunteers (long-term contract). However, CWGs generally exist under difficult financial circumstances that can inhibit them from being able to employ people directly or maintain job positions over the long-term.

Employing people is both a means for CWGs to deliver on their planned activities as well as an end in itself. That is, part of the work of CWGs is to find opportunities to create paid work, support local businesses, and offer training opportunities. But again, most CWGs subordinate such economic goals to their compromise towards environmental protection – for example, the Isle Martin Trust states that they aim to identify 'opportunities for sustainable economic activity *in so*

far as it is consistent with conserving the natural habitat and wildlife' (emphasis added, see *Appendix I*).

(v) Prevention or relief of poverty.

This goal relates to the prevention and alleviation of poverty, including food insecurity, fuel poverty, and the lack of affordable housing. These are fundamental human needs that require both immediate actions to relieve those in suffering and structural changes that create long-term solutions and prevent such issues from reoccurring. In addition to that, CWGs also seek to support those in need by reason of age, ill-health, disability, financial hardship, or any other disadvantage.

Again, while this goal is pursued by CWGs operating in both urban and rural regions, there are some commonalities as well as some context-specific distinctions. Some people in metropolitan areas struggle to meet their basic necessities owing to a lack of income/employment or unaffordable prices. In rural locations, a lack of service provision can make it difficult for people to meet their fundamental necessities, even if they have a decent income. Therefore, CWGs strive to meet community needs by either enhancing people's access to or expanding the availability of basic goods and services.

CWGs seek to prevent or alleviate poverty by developing projects such as local food growing gardens, woodfuel supply services, genuinely affordable housing schemes, and home insulation upgrades. They strive to create ways to provide for these needs either at no cost or at a reduced cost. For example, by developing a local wood processing and firewood supply business, CWGs help to provide local households with reliable and affordable fuel while also encouraging residents to move away from burning coal – which not only has a much greater environmental impact but is recognised for compromising human health (Kerimray et al., 2017; Barrington-Leigh et al., 2019). Unlike most urban households in Scotland, which have a central gas-fired heating system, many rural households heat their homes with solid fuel. Thus, having a stable source of solid fuel is crucial for the health and well-being of those who live in those areas.

With regards to addressing food insecurity, a common activity carried out by CWGs is the establishment of community orchards and food-growing gardens. Community orchards include fruit trees such as apple, pear, and plum, as well as hazelnut trees and beekeeping (honeybees). Community gardens tend to include outdoor and indoor (polytunnel) growing plots, which are in

some cases collectively cultivated and shared and in others are divided as family plots. These areas also commonly include a community compost facility, which aims to reduce food waste and produce organic fertiliser.

Some communities also organise workshops and peer-to-peer learning sessions about horticulture and cooking skills to give people of all ages the confidence to grow and consume local nutritious food. Other activities include community meals, community fridge (where people in need can access donated items), and food exchange schemes such as 'take an item, leave an item' tables. These initiatives not only relieve food poverty but also encourage people 'to plant and eat locally grown fruit and nuts in order to promote health and wellbeing, enhance local biodiversity and reduce carbon emissions' (Southwest Community Woodlands Trust, *Appendix I*).

The provision of genuinely affordable homes is another prevalent goal in this category. CWGs pursue this by either providing land on which housing for those in need can be built or by building/restoring community-owned residences that can be rented at a low cost to those in need. Scotland's first community-owned family-sized homes built for affordable rent by the Nith Valley Leaf Trust are an example of that. These homes were designed by the CWG to address two key community concerns: 'the lack of family-sized housing for affordable rent and fuel poverty in the area' (see *Appendix I*).

(vi) The advancement of citizenship.

Finally, many CWGs have the goal of encouraging people to become more involved with their community, strengthening social ties, and promoting prosocial behaviour. This purpose is stated in different words by CWGs, such as encouraging local inhabitants 'to take pride in and become actively engaged in their area'; 'to engender a strong sense of ownership, involvement and relevance of our woodlands amongst the local community'; or 'to promote effective democratic participation in decisions relating to the sustainable development of the area [and] promote caring, supportive and constructive roles in the community, thereby preventing social isolation and discouraging anti-social behaviour.' (see *Appendix I*).

CWGs generally pursue this by (a) actively seeking out community members' concerns and ideas; (b) raising community awareness of such concerns and ideas; and (c) encouraging community members to participate in decision-making processes, collective advocacy, and hands-

on activities that should benefit the entire community. By doing so, CWGs seek to foster a sense of community, civic rights and responsibilities, as well as 'harness the skills and energy of the local community' (Urban Roots, *Appendix I*) to promote collective benefits.

This goal is somewhat redundant, as the formation/existence of a CWG implies community engagement. However, the goal here is to maintain a good level of community engagement over the long-term. This engagement takes place in two arenas: the *political*, where people participate in decision-making and collectively organise to demand rights and changes from authorities; and the *practical*, where people participate in volunteering activities and other hands-on activities. In other words, this goal seeks to maintain a sense of community and belonging as well as develop respect for and responsibility for what is public/common.

5.6. Summary

This chapter answers RQ1 – *Who is the 'community' in Scottish CWGs, and how is this community organised for forest management?* – by shedding light on membership rules defining the community; providing insight into how CWGs are run and how community members participate in decision-making and implementation processes; elucidating what organisational form CWGs adopt and what it implies; and identifying the most common goals pursued by CWGs in Scotland (while also discussing why and how they pursue them).

This study found that the 'community' within Scottish CWGs is commonly defined by geographical boundaries and membership rules that aim to ensure local residents retain decision-making power and control over the group. Yet, CWGs are open to dialogue with external stakeholders, such as neighbouring landowners and government agencies, welcoming them as associate members or even as elected directors on their Board (but in a restricted manner).

No discriminatory tendencies were observed within Scottish CWGs. Data showed that any local resident over the age of 18 is entitled to participate in their CWG regardless of gender, nationality, educational level, or any other personal attribute. However, despite the fact that the numbers of female and male employees in the conducted case studies were comparable, a gendered role was observed, with male workers predominating in high-risk positions. This is likely due to

cultural norms around gender roles, which result in fewer women than men training to become chainsaw operators or alike, as opposed to biased recruitment.

Findings also revealed that the day-to-day management of CWGs contrasts with the romanticised view where all members of a community-led initiative gather regularly to discuss issues of common interest in order to make collective decisions and take action. Instead, CWGs operate under a representative model of governance. Community members tend to be involved in their CWG through the nomination and election of the Board of Directors, and occasionally through direct participation in consultations, volunteering activities, or events. Above all, community members can have the greatest influence on their CWG by actively participating — for example, by serving as a director, participating in open discussions, or volunteering for implementation tasks.

Furthermore, this study found that, even if they are not directly engaged, community members are entitled to voice their opinions and concerns to the Board. Therefore, maintaining open channels of communication between the Board and the community at large is crucial for the proper functioning of CWGs, as it enables effective representation of the community's interests and community engagement. Even though fluctuations in the level of community engagement are common – as a result of oscillations in the demand for participation or members' interest in or ability to participate – CWGs should always be mindful of whether they provide effective means of community engagement, ensuring diverse communication channels and opportunities for direct participation.

Data also showed evidence that the majority of the CWGs in Scotland today operate under the organisational form of ‘charitable company’, which is a combination of Company Limited by Guarantee (CLG) and a charitable status (Registered Scottish Charity). While the Company Limited by Guarantee form ensures limited liability and allows CWGs to enter into contracts, hire employees, and own property, the Charitable status offers advantages such as Corporation Tax exemption, greater access to funding sources, and stronger public support. However, even though CWGs assume a business model, they differ substantially from the capitalist business model (i.e., the business-as-usual paradigm) in that they are driven by socio-environmental goals rather than profit. Therefore, they distance themselves from the expansionary imperatives of the capitalist system, reinvesting their revenues in community projects that generate collective benefits rather than accumulating them in the hands of a few.

Finally, this study was able to identify the six most common goals pursued by CWGs in Scotland. In doing so, it revealed that CWGs are generally motivated by the dual objective of improving the well-being of the community (by improving living conditions and creating diverse opportunities for human leisure, health, education, and employment) and of local environments (by preventing/controlling harm and promoting its flourishing). However, while CWGs showed engagement with their socio-ecological conditions, this process often accommodates further commodification of their land and labour. Findings also revealed that a wide range of their goals aim to respond to the state's disinvestment in offering welfare provisions and in promoting environmental protection and restoration.

In short, CWGs in Scotland are well-defined groups of people who usually live in the same geographical area and face common issues. The identification of such local issues – in the form of needs, challenges, or opportunities – is what generally motivates them to become involved in forestry – as a way to transform their reality through direct action. On the other hand, findings distinguish Scottish CWGs from common assumptions about what a community ought to be and how it should operate by showing that they do not always have high levels of community participation and often assume a business form. However, this does not detract from the fact that CWGs are (usually) driven by goals that benefit the entire community, improving the local environment and the lives of the people living there. Therefore, it can be argued that Scottish CWGs are primarily bottom-up-oriented. That is, they are not only projects based on a community area, but they are also run by the community (through a representative system) and for the interests of that community.

As observed in this chapter, external actors and factors also influence the goals and practises of CWGs. Hence, the following chapter examines the power relationships between CWGs and external players within the socio-political structure in which they are embedded.

CHAPTER VI – SPROUTING UP (RQ2 FINDINGS)

Never doubt that a small group of thoughtful, committed citizens can change the world: indeed, it's the only thing that ever has.

Margaret Mead

6.1. Introduction

As Sherry Arnstein (1969, p. 216) highlighted, 'there is a critical difference between going through the empty ritual of participation and having real power'. When governments retain ultimate control through tokenistic consultations, resource ownership, conditional funding, overdemanding compliance obligations, and complex legal procedures, it does not empower communities (see subsections 2.2.2 and 2.4.3). Genuine devolution and meaningful community involvement in governance can only occur when decision-making and the power to act are shared. Therefore, it is crucial to assess whether community participation policies reflect an increase in communities' power to shape change or whether it is 'the result of state-directed outsourcing and state-controlled devolution' (Head, 2007, p. 449). Understanding how communities develop the power to steer and drive change is (arguably) even more important since it sheds light on how to achieve a state of greater democratisation of resources and decision-making authority.

The community land ownership campaign in Scotland began as a grassroots movement, but it has evolved into a hybrid of 'bottom-up' and 'top-down' influences. Likewise, CWGs have been developed through a 'push-me, pull-you' of forest devolution in Scotland (Ritchie and Haggith, 2012). On the one hand, this community turn has been a mechanism to rescale structural problems, making communities absorb the depredatory costs of capitalist metabolic processes. On the other hand, renewed access to land and other means is central not only to addressing the historical roots of the present-day socio-ecological emergency but also to ensuring communities acquire further autonomy to adapt, contest, and seize control over metabolic processes on their own terms.

This chapter addresses the question: *What factors/actors have contributed to the emergence and empowerment of CWGs in Scotland?* It seeks to gain a better understanding of how CWGs have acquired the right to participate in woodland management and developed the capacity to do

so. Thus, while exploring the evolution of community-led woodland management in Scotland, this chapter focuses on gaining a deeper understanding of how CWGs have strengthened (and may further strengthen) their capabilities and authority in the forestry sector. In other words, how have CWGs developed the power to transform their own social metabolism (at the local level) and influence system change at a higher-level regarding socio-environmental issues. In addition to shedding light on community tactics for developing their strengths, addressing this question also helps clarify the extent to which the recent shift towards encouraging community-led forestry in Scotland constitutes a (genuine) transfer or sharing of power.

This chapter examines the interaction of three major actors shaping CWGs in Scotland, namely (a) community members, (b) the Community Woodlands Association (CWA), and (c) the Scottish Government, to better understand how effective community-led organisations are built at the local level and how community-led organisations collaborate to defend communities' interests at the national level. The diagram below makes these relationships visible.

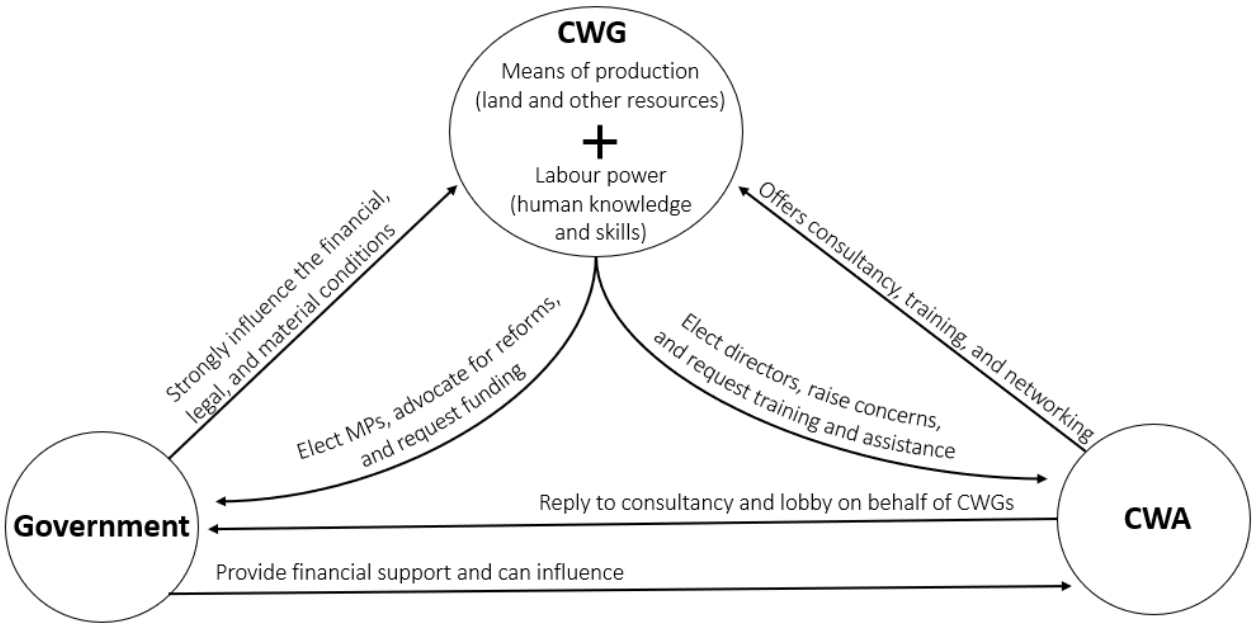

Figure 6.1. Power-relations between CWGs, the CWA, and the Scottish Government.

The chapter begins by showing evidence of the growing number of CWGs in Scotland over the last few decades (section 6.2.). Then, based on Marxist theory, it argues that community participation should be enabled through the enhancement of communities' access to and control over the *means of production* and the development of their *labour power* (i.e., knowledge and

skills). Thus, it explores communities' struggles over the *means of production*, as well as how Scottish laws and policies have evolved to legitimise and support community-led forestry arrangements (section 6.3.). Finally, it investigates how communities have strengthened both their *labour power* (through the development of their knowledge and skills) and their *political power* (through collective organisation and action) (section 6.4.).

As a result, this chapter situates Scottish CWGs within their wider socio-political context, providing insights into how they are shaped by external forces while simultaneously contributing to the reshaping of the legal and political structures in which they operate. Findings show that CWGs' capacity to follow their own goals – creating an alternative model of forest governance (a distinct social metabolism) – depends on their access to the *means of production* (i.e., natural/material, legal, and financial resources), as well as on the strength of their *labour power* (i.e., knowledge and skills). Although a mix of 'push-me, pull-you' forces has contributed to the rise of CWGs in Scotland, the data shows that socio-political organisation within and between CWGs is the main force pushing for genuine community empowerment. Therefore, in order to strengthen their capacity to promote local and system change, CWGs should continue to invest in their collective organisation as a movement that advocates for greater access to *means of production* and *labour power* development.

6.2. The growing number of CWGs in Scotland

The numbers of Scottish CWGs have substantially increased since the creation of the first group (the Wooplaw Community Woodlands) in 1987. There are today over 200 CWGs in Scotland, and the majority are formally affiliated with the Community Woodlands Association (CWA) – either directly or via an umbrella organisation. Overall, the number of CWGs affiliated with the CWA has almost tripled between 2004 and 2020. These membership numbers, combined with the establishment dates of CWGs (given in *Appendix I*), show that not only has CWA's membership increased, but that new CWGs have been continually founded over the years, as illustrated in the table 6.2. below.

Table 6.2. CWA's membership numbers between 2004-2020.

Year	Community members	Associate members	Total
2004-05	60	19	79
2005-06	76	29	105
2006-07	87	28	115
2008-09	-	-	137
2010-11	162	25	187
2011-12	162	70	232
2012-13	142	101	243
2013-14	140	100	240
2014-15	145	~100	245
2015-16	145	~100	245
2016-17	153	~100	253
2017-18	~150	-	-
2018-19	~150	-	-
2019-20	~150	-	-

(-) Not specified in the document

Note: This table lacks information from 2007-08 and 2009-10 (unavailable reports). The 2008-09 report only informs the total number of memberships without specifying their nature. From 2017, CWA's reports provide an estimated number of community members (~150), clarifying that an additional 30 community groups are represented by 'Umbrellas', and indicating that 10 community (= c) and 2 associate (= a) members joined in 2017-18, 6(c) and 8(a) in 2018-19, and 4(c) and 9(a) in 2019-20. The total number of associate members was no longer disclosed.

Despite this overall increase, a few CWA's memberships have been terminated. Some of these terminated groups failed to become fully established (never acquiring the land for which they were set up). Others flourished for a few years before dissolving due to volunteer overload and internal disputes (CWA, CS16) or due to difficulties in dealing with insurance, planning, and litigation (CWA, CS19). There were also groups that chose to be represented by an 'umbrella' or cancelled their membership for unknown reasons (see CWA's Annual Reports and Accounts).

In order to comprehend both the causes of CWGs' dissolution and their continuous existence (thriving and increasing numbers), it is necessary to have a thorough understanding of the existing obstacles and assistance to their autonomy and stability – which will be explored in the following sections.

6.3. Struggles over the means of production

As discussed in the literature review (in subsection 2.4.3.), laws and policies play a pivotal role in defining who has rights and access to resources – including but not limited to property arrangements and financial assistance (through grants, subsidies, or tax benefits). History has shown that Scottish laws and policies have often benefited the elites who created and control them. In recent years, however, Scottish communities have become increasingly involved in the demand for a radical rethinking of the law and public policies in the direction of what Findlay (2017) has termed 'communal utility' – in which they serve the public interest rather than the interests of a select few.

This section aims to understand how the structural conditions that enabled the emergence of CWGs in Scotland have evolved. It focuses on two important resources (i.e., means of production) for CWGs: landownership and financial assistance. Access to land through landownership or management agreements is essential as a place-based area for CWGs to exist and operate, whereas financial resources are required for their establishment, development, and implementation operations. Consequently, access to land and financial resources, or the lack thereof, has a significant impact on the capacity of communities to make decisions and take action. Structural changes are fundamental to creating the necessary conditions for the flourishing of a different social metabolism. Marx argued that 'new superior relations of production never replace older ones before the material conditions for their existence have matured within the framework of the old society' (*in* Marx and Engels, 2010, p. 263).

6.3.1. Reclaiming the woodlands

The separation of man from nature gave birth to capitalism, as the scarcity created by the enclosure of the commons forced the landless to sell their work and compete against each other for survival (as discussed in the literature review, subsection 2.3.1). Thus, the restitution of communal forms of landownership opens the possibility for new forms of relationships among workers and between people and the rest of nature. CWGs' struggle over land (ownership, management, and use rights) precedes their very existence. Pioneer communities in land acquisition 'did not wait for legislation' (Combe, Glass, and Tindley, 2020, p.160). They made history by propelling legislative changes

and paving the way for other communities to have access to land and to be legally recognised as landowners and managers. Indeed, land acquisition rights have been one of the most relevant legislative changes to the benefit of CWGs in Scotland in recent years.

The collected data confirms the widespread support for land reform among CWGs in Scotland. However, it has also revealed that they view community ownership not as 'an end in itself but a means to delivering wider development and regeneration outcomes' (Community Land Scotland *in* CWA, PCR9, 2019). The same holds for woodland expansion, which 'must be seen as a means to an end (i.e., to deliver social, environmental, and economic objectives), not as an end in itself' (CWA, PCR26, 2005). In the following quote, Woody (the leading forester in CS2) expresses the relevance of landownership to his community:

> From the community point of view, it has given us an opportunity to create a woodland management business. So, if we didn't have the woodland, we wouldn't have the business and the business doesn't just manage the community woodland, we also manage other private owners' woodlands. And that would not have happened if we didn't have our own woodland to begin with, to learn on and practice on, and build up the capacity. So, it is a kind of catalyst. (Woody, Forester, CS2).

In other words, ownership has provided the community with access to material conditions (i.e., land and other natural resources) as well as the ability to learn to care for their woodland in the best interests of the community and local wildlife. Additionally, the community became a service provider to other landowners (by developing a woodland management business), thus also benefiting neighbouring landowners.

Several community members (met during fieldwork in both case studies) voiced the view that 'there isn't much one can do from thin air' (fieldnotes, CS1) – referring to the importance of having access to land and other resources. Many other CWGs have also highlighted the importance of landownership on their (consulted) webpages with remarks such as: 'When communities purchase the land on which their people live and work, they are freed to reinvigorate their areas and improve the prospects of future generations' (Comrie Development Trust, see *Appendix I*).

Thus, by reclaiming landownership, communities are struggling for the right to care for their local environment and to have more control over their living conditions[32]. The Land Reform Act passed in 2003, was (largely) the result of grassroots political organising that pushed for legislative changes. Over the years, communities have continued to advocate for land reform progress and other policies aimed at community empowerment. This is observed in many of the CWA's responses to public consultations (on behalf of its CWG members). For instance, in response to the *2013 Scottish Affairs Committee consultation* on a programme of comprehensive land reform in Scotland, the CWA highlighted that:

> The current ownership pattern concentrates decision-making in the hands of relatively few individuals, a significant proportion of whom are disengaged from the consequences of their decisions: either wealthy enough to pursue their whims or simply uninterested in the land other than as an investment vehicle. At the same time the vast majority of those living and working in rural Scotland are effectively disenfranchised. This does not seem to be a sound basis for sustainable land management. (CWA, PCR18, 2013).

This statement highlights Scotland's high concentration of land and the disconnection of large-landowners' from the environmental and social repercussions of their land-use decisions – owing to the fact that they neither live on nor rely on the land for a living. In the hands of such detached owners, the CWA argued that the land becomes nothing more than an investment vehicle. Despite a turn in favour of community management, Scotland's land-ownership pattern remains a central issue, which is reinforced by subsidy and taxation arrangements that inflate land values, reward speculation, inhibit innovation, and divorce the price of land from its productive value. In CWA's own words, it 'rewards inertia and inhibits sustainable development' (CWA, PCR18, 2013). This argument, that landownership as a speculative investment hinders sustainable development, has played a central role in introducing the right to force sale in Scotland, via (a) Community right to buy abandoned, neglected or detrimental land, or (b) the Right to Buy Land to Further Sustainable Development.

Yet, while landownership is vital to the formation of some CWGs, it is important to point out that not all CWGs in Scotland are conditioned to or interested in gaining further autonomy through landownership or in transforming their socio-ecological practices. For instance, two

[32] It should be noted, however, that while landownership affords CWGs greater autonomy in determining how to manage local woodlands, community-led organisations are still subject to Environmental Laws and policies.

members of a CWG (who were visiting CS1 as part of a knowledge exchange programme) stated that they have no interest in taking ownership of their woodland. They explained that their ambitions do not require them to do so and that they have a positive relationship with the (private) landowner. In line with that, the CWA recognises that landownership is not the only way for communities to pursue their goals; 'there are substantial opportunities for community engagement and public benefit delivery from partnership working, i.e. through management agreements with public and private sector landowners.' (CWA, PCR9, 2019).

The data collected shows that CWGs in Scotland operate under a variety of tenure arrangements, including community ownership, leases (from public or private landowners), and other forms of co-management agreements. Unfortunately, data on land ownership could not be obtained for more than half of the 128 communities compiled in *Appendix I*. From the 61 CWGs for which the information was available, it was found that 49 communities own land, 7 operate under lease, and 5 communities are in the process of land acquisition.

Information about the previous property owner was also not always available on CWGs' websites, and some communities acquired multiple parcels of land over time (which might have been bought from different owners). Information on the value of purchases and kind of fund-raising was also limited; nonetheless, data suggests that a combination of grants and fundraising campaigns for public donations is a common approach for communities to attain the required purchasing value. From the 25 CWGs that specified previous landowners, 17 have purchased their land from the Forestry Commission, 6 from private landowners, 1 from the Highland Council, and 1 from the Ministry of Defence. Therefore, the data collected indicates that land transferred to community ownership predominantly originated from state ownership. However, the data (covering only 25 CWGs) is insufficient to conclusively determine whether land reform in Scotland has predominantly involved the transfer of public or private landownership into community ownership. Further research and data are required in this area.

The data collected in this study indicates that the majority of landowning CWGs own between a few dozens and a few hundreds of hectares, with some exceptions owning more than a thousand hectares (e.g., the Assynt Foundation and the Borders Forest Trust) or less than ten hectares (e.g., the Aultnaskiach Dell and the Kingussie Community Development Company). It should be stressed, however, that not all land owned by CWGs is wooded. Most CWGs did not

specify on their websites how many hectares/acres of their owned land are classified as woods. Likewise, most CWGs did not provide *quantitative* information on the type of woods (i.e., commercial pinewood, mixed broadleaves, ancient woodlands, etc.) under their management. Consequently, it remains unclear how much and what types of woodland is currently owned/managed by communities in Scotland. It is estimated by the CWA that Scottish CWGs collectively manage 'around 100,000 ha of forests and woodlands and other land' (CWA, PCR9, 2019).

As previously stated, CWGs recognise that landownership is 'not an end in itself'. This understanding has been promoted by the Scottish Government as land reform is not formally driven as a way to right past wrongs (such as the Highland Clearances, see subsection 2.4.1.). Instead, land reform has been promoted as a vehicle for Sustainable Development. However, it should be considered that, in the same way that 'landownership is not an end in itself', the transfer of land into community ownership is not an end in itself. In other words, the transfer of property from public or private ownership to community control is insufficient to genuinely empower communities as land managers. As pointed out in the literature review (subsection 2.2.2), governments must provide more than just access to land; they must provide a legal and institutional framework that facilitates the development and success of community-led initiatives. Hence, the role of the government in facilitating the emergence and flourishing of CWGs in Scotland should not be limited to land reform. As the CWA explains in its response to the 'Community Empowerment and Renewal Bill' (CERB) consultation held in 2014, community empowerment:

> is not something that Scottish Government bodies or Local Authorities can do (…); rather it is something that communities choose to do for themselves. However, public bodies can and do facilitate (or hinder) community empowerment, through legislation, policy, allocation of resources and organisational culture. Our hope is that the CERB will facilitate empowerment through legislation, but its provisions must be rooted in wider policy, and be backed up with appropriate resources for delivery. Most critically, perhaps, legislation and policy must be implemented: in many cases this requires cultural change in statutory bodies charged with interacting with communities. CWA believes that the most effective mechanism to achieve such change is to confer communities with new, legally enforceable rights rather than seek to impose new duties on public bodies. (CWA, PCR17, 2014).

Overall, Scottish communities' fight for land reform goes beyond property rights. It is a struggle to bring law to justice, to challenge unfair laws and policies in order to modify and return them to the common good (by devolving decision-making power to those who live on the land). That is, communities have advocated for laws and policies that serve the interests of and benefit the public, as opposed to creating privileges for the few. Communities struggles for legislative and political change, is the struggle for the right 'to be', to secure a place-based arena, legitimise community-led forestry arrangements, and resistance against the continuation or recurrence of past oppressions.

6.3.2. The financial dilemma

To be or not to be *funded* – that is the question. The availability of funding is crucial for CWGs, beginning with their establishment (fundraising for land acquisition or consulting support), continuing through their development (fundraising for training, infrastructure improvements, tool and material purchases), and their implementation operations (fundraising for delivering specific projects and employing staff). Therefore, communities acknowledge the importance of varied funding sources in enabling CWGs to exist and succeed. The CWA's reply to the 'Big Lottery, Big Thinking Consultation' in 2009 illustrates that:

> Lottery funding has been a key element in the development of the community land sector in Scotland. Community development and empowerment through land and asset acquisition helps deliver the Scottish Government's Land Reform agenda and Community Empowerment Action Plan, but more importantly, it unlocks potential and creativity in communities across the country, and gives them the means and the power to help deliver a more equitable and sustainable Scotland. (CWA, PCR22, 2009).

However, funding can sometimes steer communities away from their own vision and towards the goals and interests of others. In other words, what funders and policymakers expect from CWGs may influence their projects and activities. Data collected showed that CWGs sometimes have mixed opinions regarding funding opportunities – both from government and private sources. On one hand, they recognise that funding opportunities can provide them with the financial support they need. On the other hand, funders' objectives do not always align with the interests or priorities of the CWGs and may come with 'too many strings attached' (fieldnotes, CS1). Thus, communities

perceive some grants as restrictive to their decision-making power and autonomy – which they strive to preserve.

> Yes, if it was easier, I would think about applying, but again, it would need to be appropriate, it wouldn't be for the sake of it. It is just off down the road that they are trying to take you down and I've got my path. I know what I'm doing, I know where I want to get to, and usually I find that getting there is much easier using our own path, our own control. (Bluebell, Wood Artisan, CS1).

> We are not grant funded by anybody, so I don't have a job role or have to answer to anybody or keep specific tasks, it is really what the community needs. (Hazel, Volunteer Coordinator, CS1).

This illustrates that CWGs may view outside assistance with scepticism since it affects their sense of autonomy. Nonetheless, they welcome and even advocate for financial support that is tailored to promote the community's vision, rather than subordinating them to external ambitions. This is especially the case with regard to public funding sources – because, if government grants do not align with CWGs' goals, they contradict their own rhetoric of 'community empowerment'. That is, CWGs expect that funding opportunities should empower them to pursue the interests and goals of local people rather than co-opt them to deliver on 'top-down' projects and targets. While acknowledging that dialogue between communities and the state is important for making well-informed decisions and achieving successful outcomes for common interests and cross-boundary challenges (as discussed in Chapter V), CWGs believe that they should not have to adapt to the funding priorities of the state, but rather the state should adapt funding opportunities to promote communities' interests and goals.

Besides controversies surrounding funding purposes, the application process for funding is usually complex and onerous. The case-study CWGs reported that applying for funding is a time-consuming activity that demands specific skills, has no guarantee of success, and tends to be a continuous chase of small, short-lived grants.

> Applying for external money is a skill, it is a talent… that we were not interested in. It takes time and we never got time to apply ourselves. We don't know how to use all the buzz words and everything like that. It is more trouble than what it is worth. (Bluebell, Wood Artisan, CS1).

> I spent a winter writing out grant applications to different funding bodies with the help of [Heather], the trust

> development officer. She helped me getting the right wording in these grant applications and things. (Hazel, Volunteer Coordinator, CS1).

This process of grant application is made an even greater burden due to the fact that most grants are small and short-lived, which means communities need to frequently apply for new grants and sometimes require multiple grants to acquire sufficient capital for a single project. Thus, the need for continuity funding has been highlighted by the CWA:

> the framework for Investing In Communities should be retained, on the basis that any programme of this size requires a significant period of time to 'bed in'. Short term-ism and an over-readiness to change direction has been to the detriment of many funding schemes; if there were to be a substantial change in direction or approach at this stage, an enormous amount of 'work in progress' would be lost. (…) The community and voluntary sector is destabilised by the need to reinvent itself every few years for the benefit of funders – lottery funded projects address serious need and demand in local communities, and very often this does not disappear in the life of a single project. (CWA, PCR22, 2009).

In this same document, the CWA also pointed out that catch-all rejection phrases, such as 'project does not have as strong a fit as other projects', are often used 'regardless of the actual reasons for refusal'. (CWA, PCR22, 2009). This is highly uninformative and frustrating for CWGs that invested time and resources to submit an application, and expected the financial assistance to arrive and enable them to carry out their plans.

This is also the case for both case studies, CS1 and CS2. They have received a small collection of small/medium grants over the years. However, data suggests that there has been a gradual loss of grants in recent years, and that the non-profit sector is under increasing pressure to 'do more with less' (fieldnotes, CS2). Therefore, this reveals that this continuous dependence on external funding limits the scope and autonomy of community woodland groups to shape their social metabolism. Furthermore, this system of public funding conceals a reality in which the lack of sufficient support promotes competition among communities for scarce financial resources.

Data shows that many CWGs – including CS1 and CS2 – have strived to become as financially independent as possible. This is due to a mix of (a) governmental disinvestment in community support and funding uncertainty, (b) mistrust in funders and concerns about potential concessions, and (c) a desire to become self-sufficient and have greater autonomy. According to CWGs, there is 'a trend in government towards encouraging the voluntary sector to generate their

own income rather than rely on grants' (CWA, TER63). Hence, in order to secure the financial sustainability of their organisation, CWGs tend to resort to a diverse source of financial resources, 'from timber and non-timber forest product revenues and from grants and donations that will sustain the management of the woods.' (Anagach Woods Trust, *Appendix I*). It should be added that monetary concerns relate not only to the maintenance of service provision and the advancement of community goals but also to the maintenance of local employment.

The Scottish CWGs have developed 'innovative proposals to diversify future income streams' (CWA, ARA 17/18). This has happened mostly through a process of CWGs becoming more business-like, aiming to increasingly generate their own income stream. The CWA's documents make this trend evident. For instance, the CWA undertook a survey in 2011 to find out the range of products (timber and non-timber) that CWGs were manufacturing for sale – with the objective of supporting their development and market entry. The CWA has also supported CWGs' development as businesses by providing extensive training in product and service development, tourism development, marketing, entrepreneurship, and other office skills (see subsection 6.4.2. for details).

The existing literature has highlighted both advantages and concerns relating to the phenomenon of non-profit organisations increasingly becoming business-like (Dart, 2004; Claeyé and Jackson, 2012; Maier, Meyer, and Steinbereithner, 2016; Suykens, Verschuere, and De Rynck, 2016; Calvo and Morales, 2016). CWGs may become more financially stable and self-sufficient if they adopt a more business-like approach to woodland management. However, as CWGs become more business-like, they may become more preoccupied with financial sustainability and administrative demands, relegating their social and environmental commitments to the side-lines. Furthermore, it may contribute to the withdrawal of the welfare state, the individualisation and de-politicization of social/environmental problems, and an increase in reliance on markets and the corporate world as solution providers (Maier, Meyer, and Steinbereithner, 2016).

Overall, CWGs in Scotland are faced with dilemmas and challenges in securing the financial sustainability of their organisations. Evidence shows that Scottish CWGs fit into the trend of business embodiment by non-profit organisations – which was discussed in the literature review (subsection 2.4.3.). CWGs believe that they enjoy greater autonomy and security as they become less reliant on external financial assistance. However, many questions remain unanswered

regarding their use of business-like means for non-profit ends. While becoming more business-like might make communities less dependent on grants, it makes them more dependent on the market. Therefore, CWGs must be cautious not to compromise community values and their organisational mission in the process of becoming more business-like to secure financial security.

6.4. Developing labour and collective power

In addition to a lack of resources, a lack of expert knowledge and skills is a common barrier to community action. Despite having a strong understanding of the local ecosystems and valuable knowledge/skills passed down from generation to generation, community members frequently lack specific knowledge/skill sets regarding woodland management because previous generations were excluded from it. As a result, CWGs are frequently confronted with the realities of *learning by doing*. When communities lack experience and have limited or no access to knowledge-development channels (such as professional certification and degrees), their confidence in their ability to manage local forests is compromised. This section shows how communities have responded to this and developed strategies to acquire knowledge and skills that fit their needs. It reveals that cooperation among CWGs is not only a crucial mechanism for the development and share of knowledge, but also for the attainment of political power (through collective organisation and action).

Although there are numerous organisations and peer-to-peer initiatives that contribute to the development of CWGs' knowledge and skills, this section will focus on the role of one: the CWA. The CWA was selected for detailed examination because its relevance was consistently mentioned by members of several CWGs encountered during the course of this study (including but not limited to the two case studies undertaken). The support of other organisations, such as the Forestry Commission, Community Land Scotland, Scottish Wildlife Trust, and Woodland Trust Scotland, has also been mentioned, but not as frequently as that of the CWA. Furthermore, the CWA distinguishes itself from other organisations (that also provide consultancy and training) by serving as a network hub for CWGs across Scotland – where they share knowledge, discuss common interests and concerns, and organise politically (as a collective voice, as a social movement). That is, the CWA reduces the isolation of distant CWGs and strengthens their collective interests.

6.4.1. External support and consultancy services

Acquiring knowledge and skills takes time; therefore, CWGs sometimes require more immediate support than learning opportunities (such as expert advice and consultancy). There are five key areas where the CWA offers expert advice and consultancy to CWGs, namely: (a) Land acquisition, (b) Woodland management, (c) Social enterprise development, (c) Capacity building and community involvement, and (d) Recreation, arts, culture, and heritage. This kind of support is offered in a variety of ways, which are discussed in this subsection.

Frequently asked questions are briefly addressed in the CWA's *information sheets* – which are available for free/open access on their website. These sheets include information on a variety of topics, including how to set up a CWG, land acquisition rights and procedures, and the creation of long-term forestry development plans (see *Appendix II*).

In addition to providing general guidance and answering queries, the CWA offers paid consulting services or acts as a liaison between CWGs and external consultants. In the following quote, Heather (the Project Manager in CS1) discusses the importance of professional consultancy in the development of her community's plans and knowledge.

> So, the long-term forestry plan was worked up with outside consultancy but taking into consideration the community's ambitions (…) We've been quite fortunate in the last couple of years, we've been working with the Community Woodlands Association, in particular with the forester [X], he has been fantastic at taking sort of more technical and complex aspects and helping us tuning into a sort of more practical understanding (…) He has been really instrumental in helping me get my head around the harvesting operation and explaining all sort of things from how to calculate the volume of stack and the volume of the bags. He also more recently has been doing the survey work in our policy woodlands and sort of helping us get our head around what sort of action is required. (Heather, Project Manager, CS1).

As illustrated, CWGs sometimes have a well-defined vision but lack the expert knowledge, practical skills/equipment, and/or bureaucratic know-how to make it happen. This is particularly common for CWGs at their initial stages of development. Consultants can assist communities in better understanding how they can reach their goals, what they will need, and how long it will take

– all while imparting some technical knowledge/skills (such as volume calculation) to community members.

In addition to supporting newly formed CWGs, consultancy services can also benefit CWGs that are unable to employ full-time expert professionals (such as a forester) and/or purchase the expensive equipment required to accomplish certain tasks. As observed by the CWA in their report on 'Resource Sharing for Community Woodlands' research conducted in 2016:

> Community woodland groups are typically volunteer-led and rarely possess all the skills required to deliver their objectives for multi-benefit forestry. Employing a professional forester can facilitate better community management, but may not be feasible with limited resources. (CWA, RR6).

Furthermore, CWGs are concerned that consultants (from either private or government agencies) may have objectives and interests that are at odds with their own. That is, there is sometimes 'a lack of trust and a fear that companies may act in their own best interest rather than that of the community, and that this might be accentuated by the community's lack of expertise' (CWA, RR6). Some CWGs worry that consultants 'may not have the required understanding or the expertise to deliver the holistic approach that is desired by many community woodlands and other small woodland owners' (CWA, RR6). Therefore, a solution considered by CWGs was 'to act collectively and/or share resources' (CWA, RR6) – this included discussion around the possibility and feasibility of having a shared forester among a couple of CWGs.

The idea of sharing a forester is motivated by CWGs' mistrust of external consultants, their limited financial resources, and the reality that many CWGs do not need an expert forester constantly. As Heather illustrates:

> We are very much building our understanding here as much as possible to give us some solid foundations, but we are very aware that we need some outside input. (…) I think what we are trying to do is, at this moment in time, is a bit stretch around how we can access ongoing support without having to go for additional grants. So that we can maintain that element of consultancy but spread out over the course of each year. So, we got someone on hand that we can… yeah, bring to help us work on different elements. (Heather, Project Manager, CS1).

Overall, the data indicates that having access to affordable expert advice and consulting services is a valuable resource for CWGs. This is especially true for CWGs in their early stages of

development, as well as those who cannot afford a full-time forester. While developing their own knowledge and abilities, CWGs are supported by expert guidance and consulting services to address immediate needs. However, CWGs are sometimes concerned that consultants may not serve the interests of the community as well as a community member would. Therefore, they strive to develop their own knowledge and skills as much as possible – by taking opportunities to further educate themselves and investigating alternative options such as hiring a forester under a shared regime among a small number of CWGs.

6.4.2. Developing knowledge and skills through training

CWGs recognise that consulting services are an important resource to have at their disposal, but they also recognise the need to acquire the necessary equipment and tools, as well as develop their knowledge and skills. By investing in their own development, CWGs can reduce their reliance on external service providers, resulting in greater control over their own activities, the creation of local jobs, and lower operational costs. Therefore, the CWA also organises several training events and workshops. To identify the training needs of CWGs, the CWA engages with its members through consultation and training evaluations (at the end of each training event). Additionally, the CWA works closely with other training bodies 'to avoid duplication in the provision of training courses' (CWA, ARA 04/05) and to inform its members of training opportunities available from organisations other than the CWA.

By providing training opportunities, the CWA becomes a means to support, broaden, and strengthen the capabilities of CWGs – thereby enhancing their confidence, autonomy, and range of possibilities. Over the years, the CWA has provided numerous training opportunities for CWGs. The table below categorises these training events into themes to provide a more succinct overview of the areas in which the CWA has assisted Scottish CWGs in developing their knowledge and skills (see the full list of the CWA's Training Event Reports in *Appendix II*).

Table 6.4.2. CWA's Training Events by themes, 2008-2021.

Theme	Description	№ of trainings
Product and services development	Skills and knowledge for the development of woodfuel supply as a social enterprise, green burials, timber and non-timber forest products, charcoal and biochar production, green woodworking, crafts, and building skills.	24
Office skills	Management, Planning, Marketing, Enterprising, Grant application and Fundraising, IT Skills, Conflict resolution, Asset transfer, Certification, and Procurements.	21
Forestry, farming, and environmental conservation skills	Forestry techniques (e.g., coppicing, thinning, timber harvest practices), Food growing and Wild foraging, Soil and Environmental management skills, Forest gardening, Pests and Diseases eradication, Species identification, and Environmental conservation.	16
Community engagement	Inspiring volunteers, promoting cultural heritage, and physical and mental health activities/events.	10
Tourism development	Tourism, hutting, and trails development.	8

* This table excludes the two reports produced for the Knowledge Share Programme 2008 – 2010 and 2011 – 2013 to avoid repetition, since these two reports compile information about trainings which have their own dedicated reports.

As shown in the table above, the training opportunities offered by the CWA cover a vast array of business, management, and forestry/conservation areas. However, there is a prevalence of training for the development of products and services, in addition to tourism development and many business-related office skills. This demonstrates the CWA's incentive for CWGs to become more business-like (as discussed in subsection 6.3.2.). This emphasis on business development training responds to the simultaneous demand from 'bottom-up' (CWGs seeking financial independence) and 'top-down' (the state seeking to cut public spending).

A more diverse and balanced array of training opportunities could help CWGs build knowledge/skills and strategies to achieve specific goals (discussed in section 5.5.). For example,

few training opportunities were directly related to the goals of poverty prevention and alleviation or that of environmental conservation and restoration (which are two of the most prevalent goals of CWGs in Scotland).

6.4.3. Learning from and with other communities

Besides providing consulting services and offering training opportunities, the CWA also facilitates communication and networking among CWGs. Its seasonal e-newsletter allows CWGs to share updates on their latest activities and interests – inspiring others, celebrating achievements, and seeking advice and support from peers. In addition to that, the CWA produces a monthly e-bulletin highlighting relevant news, invitations to events, funding opportunities, and job advertisements.

Yet, among all forms of communication, face-to-face networking serves a unique function since it allows communities not just to share news but also to learn from and with each other, build relationships and working partnerships, discuss common concerns, and strengthen their political voice. To this end, the *CWA's Annual Conference* is the largest networking event for CWGs in Scotland. It brings together representatives from various CWGs and hosts the CWA's Annual General Meeting (AGM), at which the association's recent achievements and challenges are reviewed, and voting members (i.e., CWGs only) elect the CWA's Board of Directors. The table below provides a summary of CWA's Annual Conferences held between 2006-2020, highlighting attendance numbers and the topics of discussion during the event (for further information, see 'Conference and Networking Event Reports' in *Appendix II*).

Table 6.4.3. Summary of CWA's Annual Conferences, 2006-2020.

Year	Location	№ of delegates	Main topics of discussion	Workshop themes	Site visits
2020	Online, ZOOM	112	Woodland Crofts; Land Rights and Responsibilities; Small Woodland Certification; and Saving Scotland's Rainforest.	1.Managing Community Woodlands for Biodiversity; 2. Fundraising; 3.Learning from lockdown.	Not possible due to COVID-19 pandemic.
2019	Chatelherault Country Park, South Lanarkshire	56	Community engagement; Woodland creation; and Climate Change.	1.Engaging communities; 2.Woodland creation projects & the Woodland Carbon Code;	Malls Mire LNR, Urban Roots. Castlemilk Park, Cassiltoun Housing Association.

				3. Encouraging responsible public access.	K-woodlands, East Kilbride Community Trust.
2018	Strathpeffer Pavilion, Ross-shire	75	'Where next for community forestry?' New administrative structure and new Scottish Forestry Strategy; and Rural Development Post Brexit.	1.The new Scottish Forestry Strategy; 2.Woodland crofts, huts, woodlots & small-holdings; 3.Woods, forests and climate change; 4.Developing early years learning provision in community woodlands.	Abriachan Forest Trust. Aigas Community Forest. Evanton Wood Community Company.
2017	Cumbernauld, North Lanarkshire	124	Growing the capacity and confidence of the woodland social enterprise sector.	1.Sharing the lessons from Making Local Woods Work; 2. Good governance for social enterprises; 3.Hutting; 4.Woodfuel – logistics, management and marketing.	Beechbrae Twechar Healthy Living & Enterprise Centre. Galgael Trust.
2016	Forres, Moray	86	Developing community woodlands as centres for social enterprise, skills training, and education.	1.Adding value to timber; 2.Establishing an environmental employability programme; 3.Youth on board; 4.The Future of Forestry in Scotland.	Findhorn, Findhorn Hinterland Trust. Sanquhar Woods, Forres Community Woodland Trust. Darnaway, Moray Estates.
2015	Dunoon, Argyll	67	Opportunities (and challenges) for community woodlands working with private, public and other voluntary sector bodies.	1.Technology Enabled Care; 2.Sharing Staff and Resources – The Ward Forester Initiative; 3.Working together to tackle invasive species.	Stronafian Forest, Colintraive and Glendaruel. Development Trust Acharossan Forest, Kilfinan Community Forest Company. Glenfinart Walled Garden, Ardentinny Community Trust.
2014	Dunbar, East Lothian	77	Connecting with different sections of the community and linking up the economic, social, and environmental benefits produced.	1.Forestry Finance and Funding; 2.Experiences of growing a Forest Garden; 3.Woodland weddings and Green Burials; 4.Plant health: current threats and implications.	Lochend Woods, Dunbar (3 separate themed walks) and John Muir Birthplace tour.
2013	Sabhal Mòr Ostaig, Isle of Skye	80	Community Ownership and Control; Green Woodworking; and Enterprising Woods.	1.Green Woodworking; 2.Consensus building and conflict resolution; 3.Developing and delivering a community hydro scheme; 4.Permaculture – what is it and how do you integrate it into your woodland.	Tormore Forest, Sleat Community Trust. Broadford Community Woodland, Broadford and Strath Community Company.
2012	Wooplaw Woods,	72	Scottish Land Reform; Working in partnership with	1.Developing Woodfuel Businesses; 2.Plain English for Funding Applications;	Wooplaw Community Woodland.

	Scottish Borders		local authorities and the NHS; Woodland crofting, wild harvest, and forest gardening.	3.Working with Arts and Theatre Groups; 4.Establishing Mountain Bike Trails in Community Woods.	
2011	Boat of Garten Community Hall, Cairngorms	80+	Social Enterprise, woodland heritage, linear forests and arts and culture.	1.Public relations & social media; 2.Green wood qualifications and education; 3.Woodland Heritage; 4."Are you a social enterprise?"	The Royal Society for the Protection of Birds (RSPB), Abernethy Reserve.
					Laggan (commercial & recreation).
					Highland Aspen group nursery (species conservation).
					Anagach Woods (amenity & conservation).
2010	McLaren High School, Callander	70+	Social Enterprise; Carbon Offsetting; Woodfuel, and Woodland Gardens and Allotments.	1.Community shares & woodland acquisition; 2.Woodland gardens; 3.Woodfuel and energy; 4.Woodlands as venues	Fintry development trust.
					Strathfillan community woodland.
					Callander woodland link project.
					Helix project.
2008	Rothes Halls, Glenrothes	63	Making Sustainable Places; Green networks; Urban Woodlands; and Climate change.	1.Green Networks for people & wildlife; 2.Community Engagement; 3.Landscape and infrastructure design for urban woodlands; 4.Ensuring the long-term sustainable use of urban woods; 5.SRDP Funding for social forestry; 6.Transition towns; 7.Community woodfuel supply; 8.Using the media: building CWA reputations.	Falkland Estate and Centre for Stewardship.
					Portmoak Community Woodland.
					Craigencalt Ecology Centre.
					Crossgates Community Woodland.
2006	Strontian, Lochaber	98	The Woodland Crofts Bill; Forest Schools; Timber Skins; and Access to funding streams.	1.Timber Skins; 2.Sustainable Communities; 3.Arts, Culture & Heritage; 4.Dark Sky Scotland (astronomy); 5.Forest School.	Timber in construction, Morven.
					Access, recreation & education, Sgoil na Coille.
					Timber extraction & milling site, Salen.

*Note: There was no report available for the years of 2007 and 2009.

The CWA's Annual Conference also welcomes stakeholders from public, private, and other voluntary sector bodies, enabling dialogue among different actors and institutions. In other words, the event provides an opportunity for CWGs to discuss shared concerns and interests with one

another and with officials from government agencies, non-governmental organisations, and other stakeholders. By inviting agency organisations and staff to its annual conference, the CWA is able to engage these stakeholders in debates led from the 'bottom up', guided by communities' main interests and concerns.

> The conference provides an opportunity for CWG delegates and volunteers across Scotland to meet, network and learn from each other from listening to guest speakers, involvement in workshops and visiting other relevant projects on site visits. It also provides a forum for informal involvement with agency organisations and staff. This allows key agency staff, related organisations and CWGs to informally discuss their future plans, highlight problems and develop opportunities in their community woodlands. The conference allows groups to demonstrate the variety of CWG aims and emphasise the delivery of strategic objectives over a range of policy areas. (CWA, CNE32, 2006).

According to their website, the CWA's mission is to 'promote and represent community woodland groups within the political arena and to the wider world, and support established and new community woodland groups to achieve their aspirations'. They do so by 'providing support for community woodlands, raising their profile and representing them in the corridors of power' (CWA, ARA 04/05). Since its inception, the CWA has taken a clear political stance in defence of the interests of community groups, leading calls on the government to commit to:

> Put power in the hands of local communities. Commit to the principle of decentralization and invest communities with greater control over decision making and responsibility for matters which shape local quality of life. (CWA, ARA 06/07).

The CWA maintains 'close working relationships with government and non-government organisations working with developing community woodland initiatives' (CWA, ARA 05/06) and responds to public consultations as the direct representative voice of Scotland's CWGs – 'representing and promoting the interests and benefits achieved by CWGs' to ensure they 'have a favourable policy and regulatory environment in which to operate' (CWA, CNE32, 2006). However, the procedure through which the CWA discusses matters with its CWG members before responding to such consultations as a representative of Scottish CWGs was not made explicit. While a general commitment to advocating for passing more control and power to community

groups is evident, the origin of the CWA's positioning on specific matters is not clear. For instance, it was stated in the CWA's response to the 'Scottish Forestry Strategy (2019) that:

> Consideration should be given to more *fully recognising sustainable economic growth* and the important connection which exists between communities, people and traditional forest production. (CWA, PCR9, 2019).

However, the CWA's Annual Conference (2019) report reveals that CWGs presented a critical view of the relationship between 'economic growth' and the climate emergency during the 'Big Climate Conversation' session – which focused on the responses to climate change:

> It was noted that the Climate Action Plan (2018-32) was largely reliant on technological fixes to reduce emissions without doing anything that might be seen as inconveniencing people's lifestyles. In terms of what the Scottish Government should do, the first step was to climate-proof current actions and policies, and stop doing / funding things that make the situation worse. In this respect *the Scottish Government's commitment to endless economic growth (however "inclusive") was seen as a problem, and incompatible with tackling climate change.* (…) A final issue raised was that whilst the emergency is pressing, action must be well thought through, and not just comprise throwing money at the first or easiest "solution". There must be a fair transition which doesn't simply reward those who current have the highest carbon footprint or transfer government funds to those who are already wealthy: past support for renewables and tree planting has been a windfall for Scotland's private landowners and has serve to exacerbate inequality. (CWA, CNE4, 2019)

This contrasting perspective on 'economic growth' in two separate documents produced in the same year (2019) may be the result of: (a) ineffective communication between the CWA and its CWG members; (b) the mere engagement of the CWA with the terminology established by the government (despite their actual view on specific terminology); or (c) the co-existence of multiple, sometimes contradictory perspectives, within the CWA (bearing in mind that the CWA represents over 200 CWGs, therefore, it would be unreasonable to expect that all communities would agree on every subject of discussion).

Overall, data shows that the CWA plays an important role acting as a liaison among several CWGs, thus facilitating their networking and political organisation. The CWA also acts as a representative of Scottish CWGs in the political arena and has a clear political stance in defence of their collective interests, thus enhancing CWGs' political power by uniting them as a collective

voice. In this way, the CWA has fought for legislative and political changes that benefit CWGs, such as increasing community access to resources (as discussed in section 6.3.).

6.5. Summary

This chapter addressed RQ2 *What factors/actors have contributed to the emergence and empowerment of CWGs in Scotland?* by situating Scottish CWGs within their wider socio-economic context, and by providing insights into how they are shaped by external forces while simultaneously contributing to the reshaping of the legal and political structures in which they operate. As a result, it argued that CWGs' capacity to define their own goals and practices – that is, to create an alternative model of forest governance (a distinct social metabolism) – depends on their access to the *means of production* (i.e., natural, legal, and financial resources), as well as on the strength of their *labour power* (i.e., knowledge and skills). That is, in order to gain control over their own social metabolism, CWGs must get access to the means of production and develop their labour power. This, however, can only be achieved through a power struggle with other actors within the existing socio-political structure. This power struggle is (itself) part of the process of socio-metabolic transformation since it challenges the continuation or recurrence of historical oppressions and promotes bottom-up socio-political changes that devolve control to local communities.

First, the chapter presented quantitative evidence of the growing number of CWGs in Scotland since the passing of the Land Reform Act (2003). Then, it identified and analysed power relations among three major actors shaping CWGs in Scotland, namely: (a) community members, (b) the CWA, and (c) the Scottish Government. In doing so, it analysed how and to what extent these actors have contributed to or hindered the development of the material and immaterial conditions required by CWGs to act as a lever for overcoming unhealthy socio-metabolic relations in the Scottish forestry sector.

Findings showed that the state is a powerful actor with significant control over the structural conditions under which CWGs exist. That is, policies may strengthen or weaken CWGs' capacity to shape their own social metabolism. In line with previous research (Raco, 2005; Ritchie and Haggith, 2012; Ojha et al., 2016), this study found that the emergence of CWG in Scotland is

characterised by a hybridization of genuine community empowerment and rolled-out neoliberalism. On the one hand, the emergence of landowning CWGs through Scotland's land reform is an example of how policymakers have contributed to building stronger local governance structures. On the other hand, the sluggishness of the land reform on the ground and the gradual reduction of financial support from the state to non-profit organisations are indicators that Scotland is still heavily influenced by a neoliberal paradigm. Furthermore, the lack of information on the origin of the property transferred into community ownership begs the question of whether land reform in Scotland has primarily involved the transfer of public or private landownership into community ownership. This is critical in determining if the Scottish land reform process constitutes a redistribution of overly accumulated private assets or a strategy for managing 'public assets'. Further research and data are required in this area.

Scottish communities have, however, not been passive in the face of structural constraints and ideological pressures. Their history has demonstrated that communities sometimes must choose an unactualized possibility; that is, they must struggle for an alternative that is not on the table. For instance, by advocating structural reforms in their own interests through collective organisation and action — as was the case with the Scottish land reform bill. In fact, both the ambitions and tactics of grassroots organisations such as Scottish CWGs commonly seek to challenge the continuation or recurrence of historical oppressions and promote bottom-up socio-political changes that put them in greater control of their living conditions. They accomplish this in a variety of ways, including by exercising electoral power, putting pressure on public officials through letters, e-mails, and phone calls, influencing public opinion, and organising protests (Staples, 2016).

Although a mix of bottom-up and top-down forces have contributed to the rise of CWGs in Scotland, data shows that political organisation within and between CWGs is the main force pushing for communities' access to means of production and labour power development. In other words, community members are the ones that fought and managed to promote the current laws and policies that allow the existence of CWGs in Scotland. Furthermore, they are responsible for the establishment, maintenance, and ongoing development of these local organisations.

Community members are also the ones forming alliances, like the Community Woodland Association (CWA), that promote CWGs and defend their collective interests at the national level.

As the data has shown, the CWA has played a fundamental role in supporting the emergence of new CWGs in Scotland as well as their continuous development. It has significantly contributed to the empowerment of CWGs through the provision of consulting services, training opportunities, and networking events and communication. In addition, by forging alliances with other CWGs, communities acquire greater influence in national debates around development policies, as they are perceived as a multi-actor network rather than a series of isolated projects (Creamer, 2015; Staples, 2016).

Finally, data suggested that there has been a gradual reduction of financial support from the state, which has increased the pressure on the non-profit sector to 'do more with less' and find ways to generate their own income by becoming more business-like. This trend raises a number of concerns about the CWGs' capacity to support themselves without jeopardising the integrity of their socio-environmental goals. It was argued that, while becoming more business-like might make communities less dependent on grants, it makes them more dependent on the market. This may jeopardise the socio-ecological values and goals of CWGs, as it drives them into a corporate mindset and capitalist market relations. In this context, CWGs may prioritise short-term organisational survival and employment retention over long-term socio-ecological objectives.

Overall, this chapter offered a greater understanding of how CWGs have strengthened their capabilities and authority to re-shape their social metabolism on their own terms, while promoting system change in the forestry sector at a higher-level. The data demonstrated that political organisation within and between communities is the main factor behind the establishment of the conditions for the emergence and continued development of CWGs. The extent to which the recent shift towards facilitating community-led forestry in Scotland signifies a genuine transfer or sharing of power is, however, unclear. Additional evidence on the shifting patterns of government financial assistance is required to understand whether current policies to empower communities are supporting the development of local governance, or whether they are simply shifting welfare responsibilities to communities and non-profits in order to reduce government expenses. Further research is also advised regarding the effects of CWGs' use of business-like means for non-profit ends.

The proliferation of CWGs in Scotland is (in part) the result of community-led structural changes, but they are not an end in themselves – their relevance should reach beyond power

distribution. That is, CWGs are expected to represent a qualitative change in how woodlands are managed rather than essentially a change in ownership and decision-making. Thus, the following chapter investigates the extent to which CWGs have transformed woodland governance in Scotland. It accomplishes this by creating and applying a new model for assessing sustainability based on the ecosocialist framework.

CHAPTER VII – BEARING FRUITS (RQ3 FINDINGS)

Nothing great is created suddenly, any more than a bunch of grapes or a fig. If you tell me that you desire a fig. I answer you that there must be time. Let it first blossom, then bear fruit, then ripen.

Epictetus

7.1. Introduction

This chapter develops and applies an assessment model to analyse the social metabolism shaped by forestry projects in two Community Woodland Groups (CWGs) in Scotland. As previously discussed (see Chapter III), while the possibility of transforming our social metabolism is well established in the Marxist theoretical framework, there is no clear guidance for pursuing or assessing such transformation. There is no clear definition of what constitutes a healthy or unhealthy social metabolism, nor are there clear indicators or guidelines on how a transition from one to the other could occur. Therefore, the operationalisation of this theoretical framework for research and practice is still underdeveloped, which hinders both its capacity to address the sustainability transition question and its capacity to shape action.

Hence, this chapter addresses the question (RQ3) *How can a model of assessment better inform about the overall health of a given social metabolism and the possibilities for enhancing it?* It builds on ecosocialist theory and fieldwork experience to produce an assessment model while applying it to analyse the social metabolism shaped by forestry projects in two case study CWGs. This model offers a comprehensive and workable assessment of the transition away from an unhealthy social metabolism towards a healthy one. In doing so, it makes an original contribution to knowledge by helping to operationalise the Marxist theoretical framework for empirical research in sustainability studies and for the development of policies and strategies for change. Thus, it advances an alternative approach and narrative to the hegemonic definition of sustainability and its models of assessment and guidance towards a sustainability transition.

First, the chapter unpacks the concept of *social metabolism*, moving beyond the notion of material and energetic flows between nature and society to a more nuanced understanding of social

metabolism as the organisation of a way of living through the appropriation of nature and labour for specific purposes (section 7.2.). The chapter then specifies what constitutes a healthy and unhealthy social metabolism, based on Marx's critique of capitalism, and proposes an assessment model that identifies and combines key indicators of its state of health (section 7.3.). Finally, this assessment model is (retrospectively) applied to analyse the social metabolism being shaped by the case study CWGs conducted in this study (section 7.4.). This section also reflects on the limitations of the model's application and avenues for future applications and further developments.

Overall, the assessment of the two case study CWGs showed mixed results regarding the contribution of these community-led projects towards a healthier social metabolism. On the one hand, they have helped to restore and expand Scotland's biodiverse native forests while also creating employment and providing the local community with goods and services. On the other hand, CS1 has contributed to the neoliberal logic of the 'economy of repair' (by selling carbon credits), and CS2 presented poor employment relations – with some workers still alienated and suboptimal safety measures. Therefore, while CWGs have contributed to shape a healthier social metabolism by improving some aspects, they have failed to challenge certain unhealth relations/practices. Rather than dismissing CWGs as viable and vital actors for socio-metabolic transformation, the findings indicate that they have the potential to foster an even greater transformation by further challenging malpractices, advocating structural changes, and establishing healthier goals and practices in the forestry sector. However, it should be acknowledged that CWGs are not isolated from a broader socio-political-economic context and that their capacity to re-shape their social metabolism on their own terms is contingent on their access to the *means of production* and the strength of their *labour power* (as discussed in Chapter VI).

7.2. Unpacking the concept of social metabolism

As previously discussed (in subsection 2.3.3.), the concept of social metabolism emerges from Marx's analysis of the soil depletion crisis of the 19th century. This concept sheds light on the organic dependence of socio-economic systems on ecosystems, that is, the dependence of any human society on the rest of nature. This logic of dependence asserts that when a given socio-economic mode of production hinders the reproductive capacity of ecosystems, it hinders its own reproduction. However, this basic recognition of socio-economic dependence on ecosystems'

regenerative and absorptive capacities is not unique to an ecosocialist theoretical framework. This notion of social dependence on nature is present in most contemporary understandings of the concept of sustainability.

Like other theoretical approaches that focus on the limits of biophysical processes and the consequences of overshooting for the continuity of a specific socio-economic system, this limited understanding of the concept of social metabolism restricts it to the intersection between society and nature through material and energetic flows. One problem is that it leads to an exclusively environmental framing of the discussion, where the sustainability transition goal is to create a mode of production that does not degrade society's biophysical foundation. As a result, it does not serve to advance an ecosocialist, red-green, or just sustainability ideal that believes environmental and social concerns must be addressed together. In other words, this understanding of the social metabolism underpins the socio-ecological nexus through material/energetic exchanges but fails to integrate further aspects of class relations such as inequality and labour exploitation into the sustainability debate.

Drawing on Marx's theory and the work of contemporary ecosocialists, this section unpacks the concept of *social metabolism*, promoting a more nuanced understanding that combines ecological and social dimensions. Instead of understanding the social metabolism as the exchange of materials and energy between nature and society, the perspective proposed here understands the social metabolism as the capacity of a given model of society (or mode of production) to sustain itself. It follows that any given model of society requires not only natural resources but also human labour to sustain itself. As Marx (1976) points out, nature and labour are the original sources of all wealth; they are the basis of any form of social metabolism. Therefore, any given social metabolism is shaped by the way a defined group of people make a living through a specific mode of production that appropriates both nature and labour.

This nuanced understanding of the social metabolism captures the fact that any given socio-economic model depends not only on the continual reproduction of its biophysical foundation but also of its labour force. The concept of social metabolism is frequently understood as the relationship between society and nature, emphasising the 'everlasting dependence of human society on the conditions of organic existence' (Foster, 2022b, p.49). This metabolic relation is put in motion by labour processes and class dynamics, by human re-production of a way of living from

and within nature. Thus, labour is as integral to the social metabolism as natural resources are. That is, the means of human existence (i.e., use-value goods and services) 'are themselves the products of social activity, the result of expended human energy, *materialized labour*.' (Marx and Engels, 2010, p.270-271).

The understanding that labour is the motor of the social metabolism is not a novelty, but the concept is frequently reduced to the interaction between society and nature (through material and energetic flows), which obscures the role of labour in maintaining such flows (as their driving energetic force) and in shaping them (at a conceptual and socio-political level). As a result, while this limited understanding may be useful for analysing the outcome of biophysical metabolic exchanges, such as the depletion of soil nutrition discussed by Liebig and Marx (see section 2.3.3), it is of limited use for analysing metabolic rifts resulting from the degradation of labour/social conditions and envisioning possibilities for a socio-metabolic change. These constraints are further explained in the next paragraphs.

A metabolic rift arises when a given social metabolism can no longer sustain itself in its present form. Any social metabolism relies on both nature and labour to keep its metabolic processes running. As a result, metabolic rifts occur not only from the degradation of the material or natural basis of a socio-economic model but also from the degradation of the labour force (based on conditions of work and social reproduction). That is, just as food production is impossible on depleted, infertile soil, it is impossible to sow, cultivate, harvest, distribute, or prepare food without labour. This suggests that the ability of a given social metabolism to sustain itself and for how long is determined by whether and how rapidly it degrades its own basis of existence (i.e., nature and labour). Hence, a sustainable society (community or mode of production) is one that can secure the long-term reproduction of the natural and labour bases of its metabolism[33].

This nuanced understanding of the concept of social metabolism supports a better integration of social and ecological metabolic processes, where the sustainability of a given social metabolism is dependent on both the reproduction of nature (as its material base) and labour (as its energetic engine) – integrating environmental and social reproduction into the question of long-term sustainability. Therefore, this understanding suits better a red-green approach to science and knowledge development. It serves to think about the extent to which natural resources are being

[33] Moreover, as will be discussed in the next section (7.3.), an ecosocialist conception of sustainability extends beyond the temporal component (survival) to include a qualitative dimension (well-being).

depleted as well as the extent to which these resources are being shared for the social reproduction within a metabolic system.

Furthermore, by reinstating labour at the centre of the concept of social metabolism, this nuanced understanding emphasises its critical role not only in the maintenance but also in the transformation of a given social metabolism. As discussed in section 3.2, a social metabolism is a socio-historically constructed way of living (or mode of production), which implies that it is subject to change. This understanding emphasises the human capacity to transform its own social metabolism, shedding light on labour as more than its driving energetic force but as its main shaping force (at a conceptual and socio-political level). In other words, humans have the ability to rethink and transform their social metabolism within the bounds of natural laws.

Overall, by understanding the concept of social metabolism as a socio-historically defined way of living (or mode of production) through the appropriation of nature and labour, it can serve to examine not only the interaction between society and nature but also the internal (or social) dynamics that shape the social metabolism, such as laws of value, labour relations, and the distribution of benefits. As a result, this nuanced or in-depth understanding of the concept better integrates its social and ecological dimensions, making it more useful for advancing an ecosocialist (transformative) approach to sustainability transition.

7.3. Towards a socio-metabolic health assessment model

This study addresses the sustainability transition question from a Marxist theoretical perspective, and in doing so, it recasts this question in terms of a socio-metabolic transition. That is, it frames the question as *the need to transition from an unhealthy social metabolism to a healthy one*. Thus, this section explores how Marx's theory might inform our understanding of what constitutes a healthy and unhealthy social metabolism in order to better operationalise this theoretical approach. Then, this section proposes an original assessment model, which is subsequently used to analyse how and to what extent two case study CWGs have contributed to foster a healthier social metabolism in the Scottish forestry sector.

To begin, it is fundamental to establish what is here defined as a healthy or unhealthy social metabolism. Marx’s critique of capitalism gives great insight into understanding how a given model of society can shape an *unhealthy social metabolism*. He argued that the capitalist system generates

its own ills by undermining the reproductive capacities of nature and labour. His analysis exposes how both the *ends* and the *means* of the capitalist system contribute to the deterioration of its own foundations, which is manifested in a variety of environmental and socioeconomic issues.

There are two central problems with the *ends* of the capitalism system. First, its mode of production focuses on generating profit (abstract value) rather than meeting genuine human needs (use-value). As a result, a profit-driven society becomes greedily wasteful, striving to convert ever more natural resources into commodities. Second, under capitalism, profits (and the privileges and benefits they buy) are captured and accumulated by a small group of individuals (due to the stratified social formation characteristic of capitalist societies). This accumulation renders those at the bottom of the social stratification – that is, the labourer and nature – increasingly deprived from the means and conditions of their own reproduction, and vulnerable to further exploitation by those at the top (the bourgeoisie).

Furthermore, to sustain its profit-driven and cumulative *ends*, the capitalist system is compelled to operate through anti-ecological and anti-social *means.* That is, it leads to a mode of production that continually aims to increase profits by expanding and intensifying the exploitation of the sources of wealth (nature and labour). In this process, capitalism reduces social and environmental protections, pushing beyond socio-environmental limits.

Marx's critique of capitalism provides a clear foundation for understanding the roots of the current multifaceted planetary emergency and, therefore, for envisioning an alternative socioeconomic system that would shape a healthy social metabolism. The figure below depicts four key problematic nodes of the capitalist system – identified in Marx's theory. By doing so, it illustrates a sustainability transition vision founded on Marx's critique of capitalism. That is, it begins to clarify that a transition towards a healthy social metabolism requires the discontinuation of the unhealthy *ends* and *means* of the capitalist system and the creation of healthy ones.

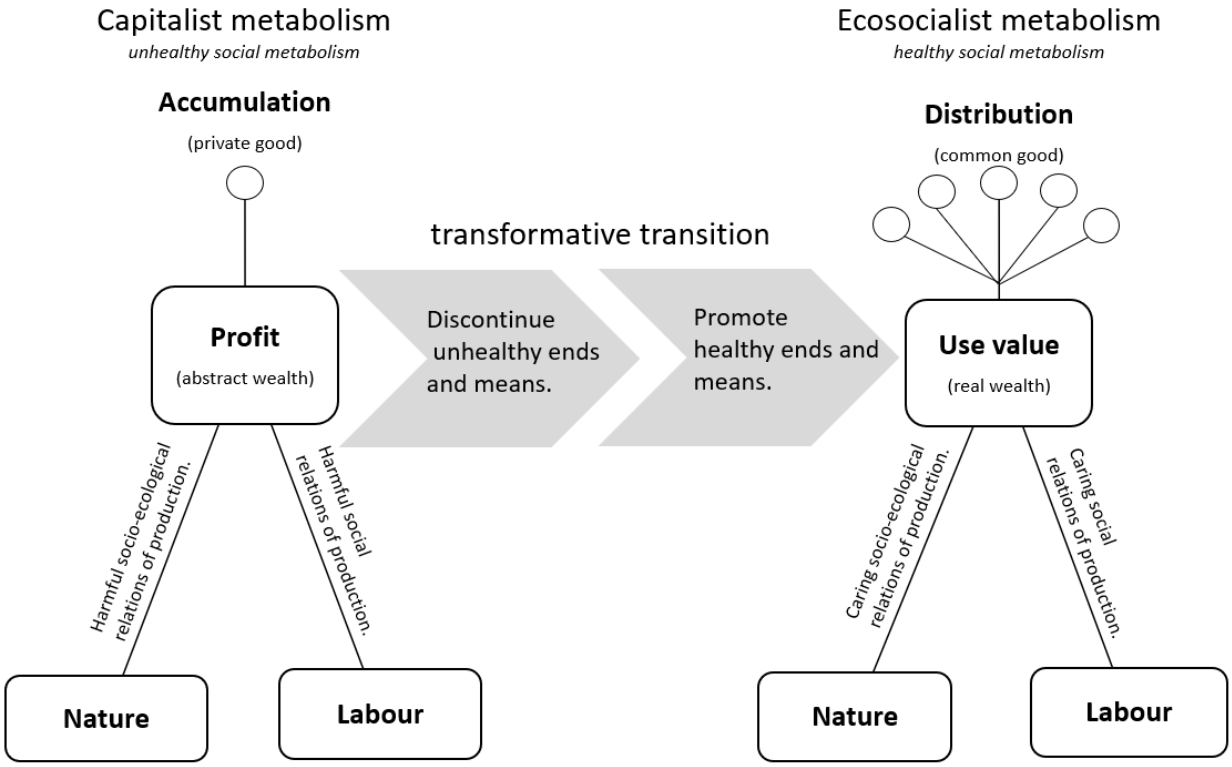

Figure 7.3.(a) Sustainability transition according to Marx's critique of capitalism.

Overall, capitalism constitutes an unhealthy social metabolism because it is guided by unfair and unquenchable ends, and because it is implemented by socio-environmentally destructive means. Building on this understanding, the use of the terms healthy and unhealthy in this thesis aims to embody the analogy to the concept of biological metabolism. Not only does the term 'health' fit the biological analogy, but it also conveys a qualitative dimension that is absent from the dominant concept of sustainability. That is, a social metabolism may be deemed *sustainable* if it is anticipated to be able to maintain itself in the foreseeable future, irrespective of the quality of life it supports. 'Health', on the other hand, qualifies the social metabolism *beyond a simple measure of time*. The concept of health implies not merely the absence of disease (or metabolic rifts), but a complete state of well-being. Thus, a social metabolism that is *healthy* is more than merely sustainable: *it is not only capable of sustaining itself in the foreseeable future, but it also sustains good living conditions.*

The realisation that the problems of the capitalist system extend far beyond its practices, all the way to its core goals (its intent), is what situates the ecosocialist stance within a radical transformative sustainability transition approach (Hopwood, Mellor, and O'Brien, 2005; Davelaar,

2021; Meadows, 2009). In other words, capitalism causes environmental and social deterioration not only as an end result of its mode of production but as a characteristic of its *modus operandi*. Therefore, from a transformative perspective, the assessment of social mentalism must engage with the way labour and nature are mobilised within contemporary sustainability transition projects.

Studies in the field of sustainability transition that take a transformative approach must be able to recognize where and how alternatives differ from unhealthy capitalist socio-metabolic relationships. That is, whether and how alternatives abolish capitalist ends and means. However, knowing whether a transition away from capitalism is occurring is insufficient for predicting where this transition will lead or whether it will shape a social metabolism that is healthier, similar to, or worse than that of capitalism. In other words, a transformative assessment model should avoid a capitalocentric framing that makes capitalism the key reference and diminishes the relevance of assessing the quality of the proposed alternatives. After all, understanding where we are going with change is more important than knowing where we are coming from.

As previously discussed (see Chapter III), the understanding that the human-nature relationship is not purely instinctive or mechanistic, but rather mediated by a cultural layer, implies that the social metabolism they establish can be transformed. A social metabolism is a dynamic state set in motion by human labour in the production of a living – according to a socio-historically defined mode of production. Thus, humans are capable of rethinking and altering their social metabolism through the re-organisation of a society's *mode of production*.

In other words, a sustainability transition – i.e., the transition from an unhealthy social metabolism to a healthy one – is possible. 'Each mode of production generates a distinct social metabolic order that influences the interchange and interpenetration of society and ecological systems.' (Foster and Clark, 2020, p. 208). It is, therefore, by assessing our mode of production that we can aim 'at the creation of a higher society in which the assorted producers rationally regulate the social metabolism in accord with the requirements of the universal metabolism of nature, while allowing for the fulfilment of their own human needs.' (Foster and Clark, 2020, p.212).

Thus, this section proposes a socio-metabolic health assessment model that focuses on the *mode of production* (of a way of living) as the foundation of any social metabolism. It promotes an integrated analysis of the four nodes of Marx's critique of capitalism, namely: (i) the use-value of

goods and services; (ii) their social distribution/access; (iii) the standard of working conditions; and (iv) the standard of care for nature.

This model (see Figure 7.3.(b) below) brings both the *ends* and the *means* of a given mode of production into analysis, starting from two pivotal inquiries: the *why* and *how* of human production in shaping a way of living. The first category of inquiry (*axis y* – Why) refers to the ends a socio-metabolic process serves by taking into consideration their use-value and distribution.

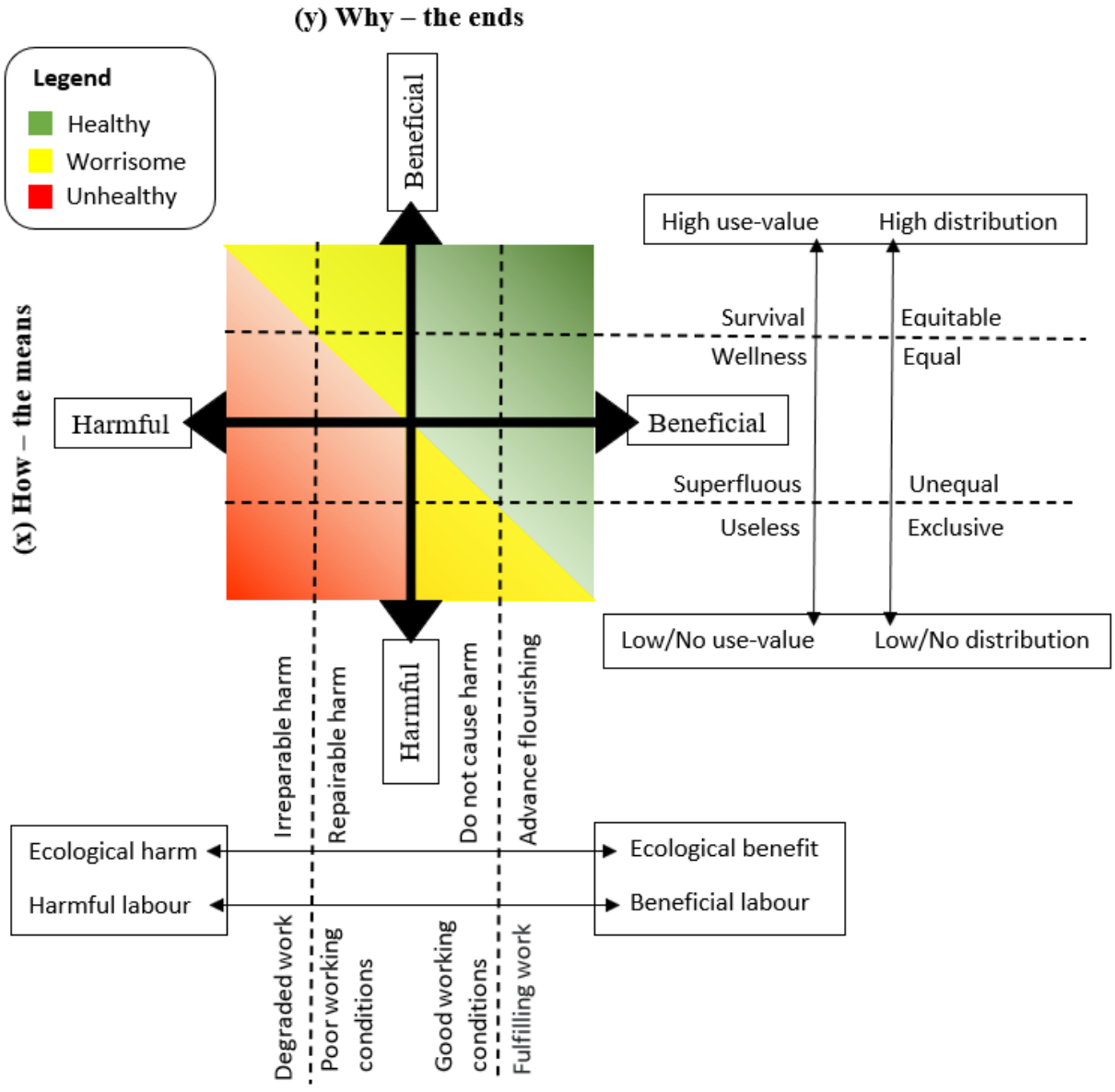

Figure 7.3.(b) Socio-metabolic health assessment model.

The second category (*axis x* – How) refers to the means a socio-metabolic process employs to achieve its ends by taking into consideration its standard of care for the labourer and nature. The reasons for choosing and combining these factors are further explained in the next paragraphs.

Inquiries regarding the *ends* of a social metabolism relate to matters of value in terms of use-value (real wealth) and to matters of distribution of benefits (social equity and justice). Thus, the assessment of the ends considers what are the benefits being pursuit, how relevant to human well-being these benefits are, and who is enjoying or is being excluded from such benefits. By analysing the use-value of goods and services, this assessment model aims to capture problems relating to luxury production and overproduction. By analysing patterns of distribution of benefits, this assessment model aims to clarify whether scarcity happens due to lack of production or distribution. By combining indicators of use-value and distribution, this model assesses the adequacy of the intent of a mode of production, emphasising the ethical commitment to meet the needs of all human beings without violating natural boundaries. This ethical commitment should be the cornerstone of human civilization, not economic growth.

Inquiries regarding the *means* of a social metabolism pay attention to how the labourer and nature are treated in the process of production. Thus, for the purpose of developing this socio-ecological assessment model, Marx's concept of relations of production is categorised into two types of relations: *social* and *socio-ecological* relations of production. The *social relations of production* focus on human-human relationships, which may or may not be characterised by class relations and power asymmetries depending on the social formation adopted. The *socio-ecological relations of production*, on their turn, focus on society-nature relationships characterised by human use and treatment of nature (i.e., ecosystems and non-human beings). By focusing on the intersection of these two categories, this model emphasises the relevance of both nature and labour in shaping and maintaining a healthy social metabolism.

In analysing how the labourer and nature are treated in the process of production, this assessment model takes into consideration both immediate impact (on the current state) and long-term impact (on the capacity of reproduction). Such impacts can be generally classified along a gradient from harmful to beneficial. Regarding the treatment of nature, means can be harmful (either irreparable or reparable), non-harmful (when they do not cause harm), or beneficial (when they advance ecological flourishing). This analytical procedure should take into account the well-being of other species and ecosystems within the processes of resource appropriation, waste

disposal, and habitat modification. Regarding the treatment of labourers, means can be harmful (when they violate fundamental human rights or labour laws), non-harmful (when they provide decent working conditions), or beneficial (when the work is fulfilling of human *species-being*, in addition to assuring decent working conditions). This analytical procedure should encompass working conditions and workers' experience at job – including quality of labour contracts, health and safety measures, levels of physical and psychological strain endured by workers, as well as worker' degree of alienation or fulfilment.

This unifying assessment model interprets the level of health of a given social metabolism as the result of the relationship between these four key factors. The intersection of a graduation in the degree of relevance of the *ends (axis y)* and adequacy of *means (axis x)*, from harmful to beneficial, allows us to better observe the shaping of a given social metabolism as the weaving of treads of societal values and its relations of production with the sources of all wealth (labour and nature). By combining indicators of use-value and distribution with indicators of the quality of social and socio-ecological relations of production, this assessment model can indicate the level of health of a given social metabolism – see the gradient of health from dark green to dark red in Figure 7.3.(b). This assessment could also be used to identify areas where an unhealthy social metabolism needs to be changed, and to indicate whether progress or a lack thereof toward a healthier social metabolism is being made.

This assessment model could be applied to analyse social metabolisms at varied scales through the analysis of a given mode of production (of goods and services) at a societal, community, or organisational level. Specific groups of people (e.g., a socio-economic system, countries, communities, organisations, or households) can be defined and interpreted as enacting a specific social metabolism. Smaller populational selections (such as a community or a specific community-led project) allow us to conduct empirical research on a feasible scale. However, small scale definitions (or segments) of a social metabolism are often interlinked in a variety of ways to a broader social metabolism, both in the societal level (e.g., supply chains) and natural level (e.g., shared ecosystems).

This model contrasts with conventional sustainability models that aim to assess efficiency by focusing on measurable/quantitative evidence. Instead, it brings a social sciences perspective that focuses on qualitative aspects and aims to operationalise a transformative/radical approach by calling into question the intent as well as the operation of socio-economic systems. In other words,

the assessment model developed in this thesis provides a qualitative framework that considers multidimensional variables that, in combination, shed light on the level of health of a specific social metabolism. The interpretative and non-quantifiable nature of indicators listed in the analysis show the extent to which a transformative approach relies on soft sciences (and their ethical-philosophical considerations) as much as on hard scientific evidence (measurable/quantifiable indicators).

There are, however, some challenges in using this assessment model. For instance, the task of assessing the use-value of a given *end*, and thus placing it on a scale between the extremes of high use-value (survival) and low/no use-value (useless), can be a quite subjective task due to a culturally defined 'politics of needs' (Benton, 1996). However, it should be taken as a reference that what goes at the extremes of high use-value (axis y) refers to physiological needs, such as quality air, water, nutrition, and sleep – all of which are essential for human survival and physiological health. At the bottom portion of *axis y* should be placed those ends that do not satisfy any genuine need. Disputes over the relevance of certain ends – and, therefore, their placement on *axis y* – are expected to occur due to cultural variations. A moderate degree of flexibility in placing the use-value of ends should be able to accommodate such cultural diversity. However, the use-value attributed to a particular end is not the only measure used to determine its placement on the assessment's scale; use-value is merged with distributive value and then balanced by its intersection with *axis x* - which indicates the social and ecological costs involved in attaining a certain end.

Overall, this assessment model contributes to the operationalisation of Marx's theory for empirical research by defining healthy/unhealthy social metabolism, identifying key indicators, and articulating how these indicators should be integrated to shed light on the health of a social metabolism. This assessment can be used to identify specific areas that require change if we are to move from an unhealthy social metabolism to a healthy one. Thus, it builds a basis for empirical research and can guide policies and strategies for change.

The next section applies this assessment model to analyse the social metabolism of the two case study CWGs conducted in this study.

7.4. Applying the model

This section applies the assessment model presented in the preceding section to assess how and to what extent the two case study CWGs (conducted in this study) have shaped a healthier social metabolism. However, the model is applied retrospectively as it did not exist prior to fieldwork. In fact, the development of this model was informed by both fieldwork experience and theory. Furthermore, due to Covid-19 and time constraints, additional fieldwork to test the model was not possible. The retrospective application undertaken here involves applying the model to data collected prior to the model's completion. Thus, to undertake this retrospective application, the data collected from case studies was meticulously analysed in order to identify pieces of data that could be fed into the model. This data is identified, presented, and analysed in relation to the four model-defined indicators: (i) the use-value of goods and services; (ii) their social distribution/access; (iii) the standard of working conditions; and (iv) the standard of care for nature. Each case study is assessed separately, and the social metabolism under assessment is scaled down to the activities of CWGs as an organisation – that is, to forestry activities only, not considering activities outside the forestry scope taking place within the communities. Thus, the social metabolism here is restricted to the relationship between CWGs and the woodlands they manage.

First, a brief background on each community is provided for context. Then, this section explores how each CWG organises itself (as a mode of production) by paying attention to *what* they do/produce and *how* they organise and implement. This assessment is conducted using data collected during fieldwork about the two case study CWGs (even though data collection was not tailored for this assessment model). Relevant data to be fed into the model is identified by interrogating the data about the four dimentions defined in the model. Data relating to what each case study CWG does/produces is analysed against indicators of their use-value and their social distribution/access, while data relating to how each case study CWG organise and implement is analysed against indicators of their standard of working conditions and care for nature. Each of these four dimensional analyses are combined to produce an overall socio-metabolic assessment of the case studies CWG contribution, or lack thereof, to fostering a healthier social metabolism. This overall analysis examines whether and to what extent each of these case studies CWG have discontinued unhealthy capitalist ends and means, and/or promoted alternative healthy ends and

means. Finally, consideration is also given to the constraints of the model's retrospective application, as well as suggestions for its future application and refinement.

7.4.1. Case Study 1

CS1 is a community of approximately 30 Km^2 with a population of roughly 100 individuals. The land, encompassing 237 hectares of diverse woodlands, was acquired by the community Trust during the 1990s. These woodlands consist of vast tracts of semi-natural hazel scrub, areas characterised by natural willow scrub, mature policy plantations comprising a mixture of hardwoods, and a significant portion that was planted as a commercial conifer crop in the mid-1980s. However, the forestry group (i.e., the CWG) was not established immediately after the buyout; it was only established more recently, having its first forestry plan finalised in 2018.

Some people own houses in the area but do not live full time in the community. Some residents have lived there for nearly two decades, raising families there. Many of those raised there, however, find it difficult to stay. Children must leave for secondary school and often go on to further education or work and do not return due to a lack of job opportunities, affordable housing, and social provision for youth. As a result, the population is ageing, with most residents being over the age of 40.

The current lack of affordable housing and employment is a central concern of the community, which is addressed through the forestry project (among other ways). The forestry project has been used to provide employment opportunities, generate income, and attract funding to address local needs. The issue of housing shortage has been mitigated by means of community-led renovation of estate buildings and the identification of appropriate sites for construction. However, youth who want to return to the community or young families that want to move into the community still struggle to find affordable housing.

As a result of lack of the affordable housing, some residents are currently living in caravans. One example are two residents stay in the volunteer's house (a house owned by the community Trust and used to host volunteers at a reduced rate), but they are expected to vacate during the volunteering season. These two residents work for the CWG as part-time chainsaw operators. During the March/April 2019 fieldwork, these two residents had to vacate the house, which was

thereafter occupied by two volunteers and this study's researcher. One of these residents went to temporarily stay at a friends' houses, while the other was living in a caravan. The resident living in the caravan came to the volunteers' house one day with a bundle of wet clothes, asking if he could hang them to dry inside the house near the heaters because the weather was damp, and he was unable to dry them in his caravan. This shows that living conditions are suboptimal for some community members, and their dependence on job opportunities and other benefits (such as housing) offered by community-led organisations such as the local CWG.

In CS1, any person over the age of 18 who has been a resident for at least six months (in the last two years) is a voting community member. The Trust's Board of Directors consists of eight members: six local residents, one Highland Council officer, and one representative of a large conservation charity. Since its creation, the Board of Directors has been made up primarily of members of the community, with some representation from the Highland Council and the same conservation charity. The Board of Directors is responsible for managing the land owned by the Trust and its subsidiary companies for the benefit of the whole community – CS1 has three subsidiary companies for (1) Trading, (2) Energy generation, and (3) Construction.

As follows, the four indicators of socio-metabolic health within CS1's forestry project are explored to assess their contribution (or lack thereof) towards a healthier social metabolism.

(i) Use-value of goods and services

In order to apply the assessment model in retrospect, the materials from the earlier fieldwork were interrogated for indicators of either high or low use-value outcomes from the activities and the extent to which this use-value quality is embedded in the CWG's plans and practices.

One of the main motivations for establishing a CWG in CS1 was its Sitka spruce windblow problem. The Sitka spruce that was planted in the mid-1980s are close together in rows, evenly aged, and mature, making them prone to wind-blow collapse. As pointed out by Kale, a former Forestry Worker in CS1: 'at a certain hight the Sitka blows over, that is what happens, so… we have to utilise that'. The instability of Sitka plantations poses safety risks to residents and tourists. Thus, communities like CS1, living close to maturing Sitka monocultures, are faced with a time sensitive issue. Unless swift action is taken, enormous tracts of land are likely to become impenetrable piles of Sitka trees.

> [The Sitka plantation] was never thinned, never actively managed, it was just left to grow. And it is definitely growing! It is all reached what they call a mature hight or terminal hight, which means we need to take action on the short term now and turn it into a resource because, as years go on, we get storms and are looking at increasing risks of windblows. And if one goes down it is likely to cause a domino effect, then we'll gonna have a very expensive headache. (Heather, Project Manager, CS1).

In addition to dealing with the Sitka windblow problem, the CWG in CS1 was established to create local employment and develop a local woodfuel supply to attend to the community's needs. Households in CS1 rely completely or partially on solid fuel for heating their homes and/or cooking.

> Myself personally, my household really benefits from it. We are completely solid fuel driven home and all of our heating and our water is managed through ourselves. Being able to access a reliable, continuous [woodfuel] supply has been fantastic. (Heather, Project Manager, CS1).

The local woodfuel business started in 2017 to supply the needs of the community. A community questionnaire revealed that:

> 85% of households have got the ability to burn wood, they have a wood fuel stove on their home. And our really main sources of heating are wood, coal, and kerosine. And now, wood can be sourced locally, but coal and kerosine can't, all has to be imported. And if you import anything, then you got not only the cost of the item, but the freight tax attached to it as well. So, even though coal has a high calorific value when you're burning it still cheaper to burn [locally sourced] logs. (Heather, Project Manager, CS1).

> We realised that we were spending money and carbon on our fuel with coal and oil, and so, looking at a better way to manage the woodlands so we would have wood fuel and have a more sustainable source of energy. (Wren, Ranger, CS1).

Initially, however, the locally produced woodfuel was of poor quality and did not burn well since the CWG did not know how to properly dry the firewood logs.

> It worked okay…. it wasn't great, it wasn't reliable enough, and because it wasn't reliable enough, people then found their own system that is reliable… and often that was buying coal. Because having coal is, although it is dirty, it is… you know, if you have a ton of coal you know how much you're gonna get from this. (Kale, former Forestry Worker, CS1).

There was a learning curve for the CWG in producing good-quality firewood, but sales have been stable at a reduced price for residents.

> We now had two almost full financial years of sale since that, and sales really doubled from what they were under the previous system. (…) I have been really quite amazed by the volume of sales and I'm really excited by it. (Heather, Project Manager, CS1).

CS1's woodfuel production helps to address the Sitka windblow problem while also creating local employment and providing the community with a needed commodity that is locally produced and less harmful to the environment than alternatives such as coal. Long-term, the CS1 aims to reduce and limit woodfuel production to the demands of the local population. Yet, there is growing awareness that reliance on wood for heating is not the most sustainable or efficient answer in the long run. However, other proposals, such as improving home insulation, have met some pushback from residents and will require greater discussion and financial planning.

> The guys on the council are planning a scheme and are muttering about insulation. The old part of our house and the new part were up to the latest specifications. And to try and improve the insulation in the open is really difficult; it is really complex and expensive, you know? I said I'm not gonna do that, not unless there is an easy fix. And they were stubborn; the ballots started to rise to do the whole house, and I said, 'Look, we only burn wood', I slightly bragged there because we have 100% renewable electricity, right? We've got solar water here. I said this house does not use carbon. It is carbon neutral. So, I'm not gonna stand here and you tell me that I've got to improve my insulation…because, you know, it is up to me how I attend to my house; it is up to you to make sure that I'm not producing carbon. And I'm not. Even if my house is leaking heat everywhere, I'm still not. So, that is really our, it is our plan, I think. (Kale, former Forestry Worker, CS1).

Burning locally sourced decaying Sitka appears to be a great answer for the community at present, but the community's long-term heating strategy is still unclear. There are heating measures that could take the community farther along a sustainable path by reducing their need to burn wood (or the amount of wood burned), and there are potential for timber/forests that have a higher value than woodfuel production.

Other forestry benefits developed by CS1 include a community orchard (with mostly apple trees), many footpaths for the enjoyment of locals and visitors, and a tree-nursery that is growing

native species from locally sourced seeds to replace the harvested Sitka monocultures with a native and biodiverse woodland.

Overall, the purpose of CS1 is to tackle local problems (the Sitka windblow) and create opportunities and benefits for the local population (providing employment, supplying woodfuel, developing/maintaining footpaths, planting fruit trees, and boosting the local biodiversity, resilience, and beauty). Hence, it focuses on use-value over profit generation.

(ii) Social distribution/access

In order to apply the assessment model in retrospect, the materials from the earlier fieldwork were interrogated for indicators of the distribution or access to the benefits resulting from the activities and the extent to which interest in ensuring benefit distribution/access is embedded in the CWG's plans and practices.

Most benefits of CS1's forestry project are open to all, such as pathways, orchard fruits, and, in the long term, a biodiverse woodland that will continue to meet local needs. This will also be more beneficial to wildlife and aesthetically pleasing. The forestry project generates local employment and contributes to the local economy by beautifying the local landscape and attracting more tourists. In fact, tourism is one of the primary sources of income for community members, and the community attracts between 6 and 10 thousand visitors a year, most of whom come to experience the abundant wildlife and historical sites.

The woodfuel supply project also focuses on local needs. However, the Sitka spruce harvested in CS1 is only partially destined to be processed locally as woodfuel for local residents (at a reduced cost). The majority of the phased Sitka harvest has been sold to an outside company. There are two reasons for this. The first is that since the community lacks the necessary machinery and expertise to perform such a large-scale harvesting operation, they need to pay an outside contractor to do the harvest. The second is that such large-scale harvests exceed the local needs for firewood.

> So, we've selected those trees with easy access with the idea that we would send off 2500 tons and we would keep the rest of it [800 tons], which is about 75/25. The reason we need to send some away is we cannot bank for all harvest job that size, we got to bring in machinery, so we have to bring in a

> harvester and a folder obviously offer someone the job to operate that machinery. (Heather, Project Manager, CS1).

Heather was unable to say with certainty what the logs sold out of the community would be used for; her understanding is that they would be used to produce cardboard for packaging. This raises concerns about the use-value of exports. However, this exportation of timber to outside the community is expected to be only temporary, for financing the large-scale harvesting operations necessary to remove the Sitka monocultures.

> Ultimately, the idea is that we wouldn't have to keep doing things in such a large scale, but instead to scale down to the community's needs. (…) To do it on a scale that we can manage ourselves. (Heather, Project Manager, CS1).

Therefore, the current large-scale felling operations are part of a process of woodland restructuration, whereby collapsing Sitka monocultures are being replaced by mostly native biodiverse woodlands.

Data also shows that there is still some resistance from the community to buying firewood from the local CWG, even though it is sold at a reduced price to local residents. The firewood used by residents is not always bought from the CWG; instead, it is often self-sourced locally and sometimes bought from outside the community. Furthermore, while it is expected that locally produced firewood would replace coal, data shows that local residents continue to use a mixture of firewood and coal.

> I've just got a wood or a multi-fuel stove. The only way I can keep my house and water is through the fire. This winter, I have had to still put a bit of coal in, just to keep the fire going when I'm out all day or something…it is a quite old house, so it needs a lot to keep warm. But a lot less [coal], I maybe only bought one ton of coal when I'd normally buy at least two in a year, maybe three in a year. The rest had been wood. You get something like double the amount of wood for the price of the coal, per ton of coal or whatever it is, but I'd burn twice as much of the wood to get that same heat you would from the coal. But that is okay because we have the source here, it kind of works out. So, I haven't saved any money as it is, but I stopped coal coming in. (Hazel, Volunteer Coordinator, CS1).

> We use a mixture, we use coal in the winter which I hate doing, but we live in a very old poorly insulated house, and we've done as much as we can but, it still a cold draft building… so you know to keep it heated up we have coal as well. In the winter it is just us as a family and we don't use a

> lot of the building, so we can try to keep our heating to the minimum and we are very, very conservative with our heat. (Wren, Ranger, CS1).
>
> For heating we only use wood. The wood is sourced whenever we get it. We do not buy or haven't bought produced timber, that is produced as woodfuel because finding wood for fuel is part of our lives. So, we don't want to buy wood not because we can't afford it or we don't want to afford it, but because we like finding wood and processing it ourselves. [My wife] does most of the shopping the wood, I do the work with the chainsaw, it is just part of our life. And we use drifted wood as well, so quite a lot of the wood we burned this year has come off the beach. (…) And our house is very well isulated, so we don't have to burn a lot of wood. (Glenn, Wood Artisan, CS1).
>
> It is just wood we burn. (…) I'm not sure where they are coming from to be honest. I mean the carbon footprint on them is bigger, much bigger than burning logs from [the community]. But it still better than coal. (Kale, former Forestry Worker, CS1).

The reluctance of community members to purchase wood logs from the CWG is a result of its early inability to deliver high-quality firewood – as previously noted, they did not know how to properly dry the logs at the outset of the woodfuel business. Another reason is that some community members are accustomed to and even enjoy gathering and processing their own firewood. The persistent usage of coal can be attributed, at least in part, to the fact that many of the local residences are old and poorly insulated, which is not an easy or inexpensive fix.

Overall, CS1 is concerned with making benefits accessible to the entire community. However, some of these benefits require years to fully develop, such as the woodfuel supply business and the conversion of monocultures into biodiverse woods. Moreover, while benefits are made available to all members of the community, it is up to individuals to take advantage of them.

(iii) Standard of working conditions

In order to apply the assessment model in retrospect, the materials from the earlier fieldwork were interrogated for indicators of the quality of working conditions and work experiences and the extent to which concerns about job safety, security, and satisfaction are embedded in the CWG's plans and practices.

The working conditions associated with the forestry project are not fundamentally characterized as exploitative, but they reveal key challenges for a systematic change in the local social metabolism. This is because their main issue is the lack of reliable job opportunities and income generation for several community members. Underemployment is a far greater issue than unemployment in the local labour market. Tourism, forestry, construction, public services, catering, retail, and a variety of small private businesses comprise the local employment sectors. A significant portion of the employed population engages in many part-time occupations, which collectively amount to a weekly commitment of approximately 10 to 15 hours.

Hazel, for example, is not only the Volunteer Coordinator, caring for volunteers and performing conservation tasks such as collecting seeds, growing them, planting trees, and maintaining the footpaths, but she also works for the community Trust performing cleaning tasks (cleaning the Volunteers' house and the bathrooms and other common areas near the community pier), and she is self-employed as a masseuse (attending mostly tourists). Looking after volunteers is a seasonal job; she is contracted for around 25 hours a week from April until September.

Others have or had similar experiences; for instance, Glenn – a former forestry worker who today has a crafting business – describes: 'I was briefly unemployed when I first came to [the community] and I did a handyman jobs, cleaned the toilets at the pier, forestry work, anything really. I did what a lot of people who come here do, I picked up work as I could; I had six different jobs.' (Glenn, Wood Artisan, CS1).

The economy within the community is based largely on the industries of agriculture and tourism, with many residents holding part-time or seasonal occupations to complement their crofting activities. There are in the community three farms with a mixture of sheep and cattle, common grazing areas, and 16 registered crofts. Nevertheless, it should be noted that crofts are relatively small, which limits their economic viability in purely agricultural terms. The majority of supplementary employment opportunities have arisen as a result of the community buy-out, which facilitated the development of several sectors (locally), including construction, forestry, energy, and conservation activities directed to improve the generally neglected natural and cultural heritage. Yet, because a portion of the work required in improving the area is finite, the existing employment level is unlikely to be sustained based on the same activities.

Creating opportunities for existing residents and for new people to enable them to make a living in the area and stay in the community, is one of the focuses of the CWG. At the moment, the CWG employs four to five people: one full-time Project Manager, a part-time seasonal Volunteer Coordinator, and chainsaw operators (fluctuating between two and three workers). The chainsaw operators that work in the harvesting of wood for the woodfuel business are contracted to work 15 hours a week. But their hours are flexible 'because some weeks they won't have any work, there is no wood orders, or they don't have to process any wood or whatever, so it can differ' (Hazel, Volunteer Coordinator, CS1). Their salary comes from a tax over orders of the wood logs.

Heather, the Project Manager, stated that as part of her job she must create job opportunities, especially when there is someone in the community in need of employment. While many jobs are only temporary, there is an active effort to create local long-term employment opportunities too. 'It is good to focus on long-term employment creation, delivering local needs locally, just supporting and protecting our ores.' (Heather, Project Manager, CS1). This aspect is also manifested in the community Strategy Plan (2007,) with the community prioritizing to support small-scale businesses as a form of job creation and income generation.

While the CWG has successfully created a few job positions, it substantially depends on the volunteer commitment of community members as well as volunteers from outside the community. An interesting finding is that those who do manage to volunteer describe a wider sense of wellbeing due to their involvement with nature and the community. Motivations to volunteer include personal orientation to the work itself, to the environmental and/or community cause, or personal reasons such as mental health. 'I guess there is like a health benefit there, coming and helping work together on the project, planting trees, and all that seems quite a good subject. People are happy about helping out on something like that. And then, I guess, for the future… having nicer areas of woodland to walk in.' (Hazel, Volunteer Coordinator, CS1).

From the two non-member volunteers present in CS1 during the fieldwork, one was a returning volunteer particularly oriented to the work being done there, and the other was a first-time volunteer seeking to improve her mental health. The work was appealing to the volunteers despite the lack of monetary compensation because it was viewed as both socially useful and personally fulfilling. Most of the work performed during fieldwork in CS1 was at the tree-nursery.

There are, however, challenges when relying on volunteers to do work. It is necessary to account for volunteers' lack of specialist knowledge and experience, as well as their limited availability. Furthermore, volunteers require additional health and safety precautions at work as they are often unfamiliar with the activity and specific tools.

> My main concern up here is when the guys are up here processing wood. Because there are tractors, sort of moving back and forward between the processor, filling up the bags of wood and then bringing back to the shed… moving back and forward, reversing and stuff. And my volunteers are walking about in between the tunnel and the shed and the fenced area down at the bottom. So, in these kinds of days I just would make sure that everybody is aware of moving traffic and have vests, so people are seen easily by the tractor drivers, things like that. And in terms of the forestry team, they are always for any felling or processing work that they have up here, you know, they are not allowed to work on their own, there is always gonna be two. Obviously, working with a chainsaw if there is an accident it is probably gonna be pretty bad. So, there is kind of a protocol, because we have no phone signal up here, so this is a problem as well, not being able to phone 999 really. So, we kind of have a protocol that we thought about quite carefully. (Hazel, Volunteer Coordinator, CS1).

During the activities observed in the fieldwork, Hazel was very safety-conscious despite the low-risk nature of the tasks being performed; she reminded the volunteer team to be cautious when lifting heavy items and to take breaks to straighten their backs when conducting repeated tasks bending over seedlings.

The volunteers observed during the fieldwork were motivated to help, arriving at the tree nursery every day to work. However, Hazel highlighted during her interview that relying on volunteer commitment sometimes hinders project delivery due to a lack of reliability:

> I think the most challenging that I'd had is maybe volunteers signing up and then not turning up or cancelling last minute. And sometimes if someone cancel last minute you cannot do anything about it. If you really rely on having a team of tree or six people, if you have a large project for a specific time then… you know, that is a complete let down. You're all set up and you work so hard to get something to work within the week and then [frustrated shoulder shrug] (Hazel, Volunteer Coordinator, CS1).

Creating volunteering opportunities for people outside the community is a way of reducing the volunteering burden on community members to keep activities running, as well as a way to attract

young ‘volunteering tourists’ to the community – which contributes to the local economy. Therefore, CS1 even has a dedicated job position for creating volunteering experiences and looking after volunteers – Hazel’s job.

In addition to the two non-member volunteers who were present during fieldwork, Hazel's father (who is also a community member) was frequently observed around the tree-nursery polytunnel, either planting trees he had grown at home or checking on the trees growing inside the community's tree-nursery. A few other community members occasionally stopped by to see how the tree nursery was doing. This demonstrates the interest and engagement of CS1’s community members with the forestry project.

The two non-member volunteers who were present during fieldwork responded positively to their work/living experience in the community. One of them was a returning volunteer from Spain, while the other (from England) decided to stay in the community for longer than planned based on her pleasant experience. They reported benefiting from the volunteering experience due to its pleasant and fulfilling character.

Paid workers also indicated that they were content with their jobs. Hazel illustrates that, although she works more hours than she is paid for, running the tree-nursery is the most rewarding job she has: ‘I think it is another brilliant kind of example of self-sufficiency. For me, it is like having an interest and you are allowed to run with your own idea; to have the freedom to do that and that it actually benefits the whole community.’ (Hazel, Volunteer Coordinator, CS1). Yet, while working conditions are good, the community struggles with underemployment, constantly striving to create and sustain job positions, improve long-term job security, and ensure sufficient working hours.

At the same time, community members are not always able to fill job openings. The community may occasionally require outside assistance from professionals with specialised knowledge and/or machinery. For instance, CS1 established its forestry plan in 2018 with the assistance of an outside consultant – i.e., a forester from the Community Woodlands Association (CWA). Their 2018 forestry plan is a 20-year plan with four harvesting phases divided into five-year blocks. To further complicate matters, the Sitka plantations in CS1 are difficult to access due to a lack of appropriate roads and a pier that could accommodate the required machinery to harvest and transport the logs. However, this became an opportunity to build cooperation across CWGs.

Heather spent several months to organise the necessary logistics to begin the first harvesting phase. This was made possible with the support of another CWG who had the appropriate machinery and experience harvesting wood under comparable conditions (this supporting community was then selected as CS2 for this study).

> It is quite exciting the idea of being able to work with another community organisation, quite exciting about been able to sort of join up sort of economic and social impact of working with another community organisation rather than a company. Something a little bit different as well. Pro side, benefiting from their experience and their expertise and hopefully learning something along the way. (Heather, Project Manager, CS1).

Overall, CS1 has demonstrated concern for local employment opportunities. However, their capacity to create and maintain employment opportunities is limited, resulting in part-time, short-term contracts. CS1 has also shown a readiness to collaborate with and learn from other CWGs and the CWA, especially when they are unable to complete tasks independently. Finally, both volunteers and staff at CS1 have reported having positive work experiences.

(iv) Standard of care for nature

In order to apply the assessment model in retrospect, the materials from the earlier fieldwork were interrogated for indicators of the standard of environmental care and the extent to which concerns about environmental integrity, biodiversity, and animal welfare are embedded in the CWG's plans and practices.

CS1 have demonstrated that they take the needs of the local wildlife into consideration when planning and carrying out activities in and around the woodlands. For instance, harvesting operations do not take place during mating season, and some tree logs are intentionally left on the ground to benefit wildlife – such as Hen Harrier nesting. 'We are very mindful of the nature around us, and what we try to do is adjust our lives to their lives, to try and accommodate being in every decision that we make' says Bluebell, a Wood Artisan in CS1.

The community's plan to convert the Sitka monocultures into a native biodiverse woodland, and its development of a local tree nursery, are also evidence of the community's concern for the

surrounding environment. As Hazel illustrates, there is a sense of critical engagement and long-term commitment in their practice:

> I had notice that trees that we import have like a lower success rate. There is something like 60% of trees survive, which isn't a massive proportion. Anyway, but because of all the locations of all the tree nurseries around here, the one big enough to get an order straight away, is based in Edinburgh; and the weather conditions are very different in Edinburgh to what we have here and mainly because of the sault exposure. So, through that and also my dad. He had kind of been doing a sort of very small tree nursery over the years in his croft and I could see that the trees that he grew pretty much have a 100% success rate because they've been exposed to the sault here right from the very beginning and he had been collecting seeds [locally]. So, I realised that there was no tree nursery in the long-term forestry plan and stood up and said: 'we need to have a tree nursery because this… this is ridiculous that we are doing this massive project of felling lots of trees and there is nothing in the forestry long-term plan about how we are putting the trees back in, or the future proofing of the whole project'. So, because I had enthusiasm and passion about the project as time went on, it was kind of clear nobody else was going to do it. So, really that is how I sort of ended up now running the nursery project under the job role as Volunteer Manager. Which is great, it is good fun, it has been a fantastic project, but it has been a lot of hard work to get to here. Obviously, there will be a lot more of hard work over the next few years because it is a massive commitment having a tree nursery. Things don't just grow from year to year you have to think years and years in advance. (Hazel, Volunteer Coordinator, CS1).

Felling operations, on the other hand, generated some controversy among CS1's members due to environmental concerns, as stated in the quote below:

> Well, the felling is a little bit more controversial, but it got general support from the community. So, overall, it will be alright, it will be some short-term disruption to birds, but I think it was felt that there wasn't really sort of scale population of birds that are and do use that plantation, and they can go to other parts of the plantation or other parts of the island. The main worry was the Hen Harriers who live around the plantation not in the forest, they nest on the outskirts of it. So, that was looked into, but it was deemed that it wasn't directly affecting their habitat. And any cutting is always done out of the breading season, this is a clear line not to cross. If doing any felling it has to be done during the winter when there isn't any birds nesting. So, and then in the longer term having native trees and more mixed woodlands will be a lot better for wildlife. It is always better to have a more diverse woodland community. And it can also be possibly used more for, a nicer place for people to be in and

> use for leisure and walking and enjoying wildlife. So, you know, because at the moment the plantation is not a place where you can actually walk through and enjoy. So, that is a possible side benefit of having a more mixed woodland. (Wren, Ranger, CS1).

Such concerns are addressed in the CWG's management plan by designing rules that minimise possible negative effects, such as 'the avoidance of breading season' and phased felling (to maintain continuous cover) to protect wildlife. Furthermore, the choice of restocking with mixed native species, from a local genetic pool, also shows consideration for the wellbeing of local ecosystems and wildlife.

On the other hand, however, CS1 has recently become involved in the supply of carbon credits – which as previously discussed (subsection 2.2.1.) is a strategy based on a neoliberal logic of 'economy of repair'. By planting trees[34] and, therefore, capturing and storing carbon, the community is repairing harm historically caused to the environment (forest cover loss discussed in subsection 2.4.1.). However, once this carbon is linked to polluting industries via the carbon market, the community is no longer repairing past environmental harm but rather providing a 'green pass' for the environmental harm being currently perpetrated. In this manner, the community becomes entangled with the maintenance of the capitalist *status quo* beyond its borders and its unhealthy social metabolism at a global level.

(v) Socio-metabolic assessment

CS1's socio-metabolic ends are generally beneficial, focusing on use-values and distribution of benefits. Its means, however, could be improved since CS1 has shown limited capacity to provide job security, and a substantial reliance on external assistance (financial and non-financial). Overall, CS1 has demonstrated that it is contributing to shaping a healthier social metabolism by focusing on local challenges and needs, making benefits accessible to all, creating employment, and taking ecological needs into consideration (by both avoiding ecological harm from human operations and enhancing local biodiversity). Nonetheless, by subscribing to a carbon credits generation scheme, CS1 has contributed to the continuation of unhealthy capitalist practises.

[34] Mostly native trees grown from seed in-locus or brought in from other Scottish tree nurseries, but also some non-native species for future firewood needs.

7.4.2. Case Study 2

CS2 is a community of approximately 200 Km2 with a population of roughly 110 full-time residents. Like in CS1, the local population in CS2 is aging due to a lack of affordable housing and employment opportunities. The community is located in a very remote rural and touristic area in the Scottish Highlands. Some people own houses but do not live full time in the community. As Rose explains, this shapes a distinct metabolic profile in the social reproduction of the community, where labour and housing are often disconnected to the community's geographic limits:

> There is a lot of holiday houses, so some of them are rented out. Some of them are people who only then come and stay there, so they come a few weeks a year and there are other ones which are rented out as a business. People come and stay for most months of the year… it is quite a mix. But not a huge amount of affordable rents (…) If a house comes into the market because it is a popular holiday destination then it will undoubtedly go for more money than you could afford if you are living or working here. I think this is the biggest challenge. (Rose, Project Manager, CS2).

The community Trust purchased the land in the 90's[35] and the CWG was formed shortly after. The CWG manages over nine hundred hectares of woodlands (some of which are new woodlands they have created over the years). The vegetation is typical of low nutrient status soils on the west coast of Scotland, with leaching of soils due to high rainfall, depletion of nutrients, and damage to vegetation structure because of overgrazing and intensive species – such as *Rhododendron ponticum*. The woodland area is comprised of mixed ashwoods, oakwoods, heathland, ancient woodland, sawmill wood, and policy plantations. The landscape provides habitat to a wide variety of wildlife, including, red deer and roe deer, otters, fox, badger, pine martin, roe deer, goats, mountain hare, common seal, grey seal, water vole, pipestrelle, daubenton's and long-eared bats, golden eagles, buzzards, finches, swallows, wagtails, great tit, blue tit, grasshopper warbler, plovers, wheatear, goosander, red breasted merganser, dipper, grey heron, oystercatcher, sandpiper, curlew, red throated diver, eider, shag, and cormorant.

The CWG manages woodland on behalf of the Trust. However, the CWG has its own Board of Directors separate from the Trust's Board of Directors. The Trust Board of Directors is composed

[35] To prevent the identification of the community and study participants, the precise year of foundation and other details were concealed.

of 8 people: 5 community members, 1 representative of the Highland Council, and 2 representatives of charities. The CWG Board of Directors is composed of 5 people: 4 community members and 1 non-member who is an experienced forest manager. These Boards are elected by voting community members.

The general population of CS2 was aware of forest management operations, but they lacked engagement in the project. The forestry project has been ongoing for over two decades and has become largely led by directors and employees – with little community input. These characteristics distinguish CS2 from CS1, as the latter showed more community knowledge and engagement with the forestry project. However, this could be due to the fact that the forestry project in CS1 is still in its infancy.

As follows, the four indicators of socio-metabolic health within CS2's forestry project are explored to assess their contribution (or lack thereof) towards a healthier social metabolism.

(i) Use-value of goods and services

In order to apply the assessment model in retrospect, the materials from the earlier fieldwork were interrogated for indicators of either high or low use-value outcomes from the activities and the extent to which this use-value quality is embedded in the CWG's plans and practices.

The CWG in CS2 has existed longer than CS1 and hence performs a wider range of activities as well as larger-scale activities. CS2's Forest Plan follows a standard format prescribed by the Forestry Commission Scotland; its focus is felling and re-planting, as well as woodland management activities such as ensuring public access, eradicating invasive species, and preserving native woodland. It also includes other activities such as housing, the development of income streams, and Forest Workshops.

While expanding and managing local woodlands the CS2 has created local employment and developed as a business, providing forestry services to other landowners (local subcontracts) and producing a varied of goods, including: timber, firewood, wooden utensils, some furniture, and – more recently – wooden floor.

> In terms of physical things, every four or five years we harvest maybe four or five thousand tonnes and then from that we keep maybe a thousand tonne for firewood, which we

> make into firewood and dry and sell. We keep some for milling, so we create wood for cladding and sheds and all local uses wood. And we started to produce higher value stuff like, there is recently the Community Hall floor, like this (showing a floor tile in his hand). This is oak flooring that we had to fell a great deal of old oak trees that were growing outside the power line. We dried it and, using this machine (he points at the machine) made into floor. So, we can do more of this stuff now. (Woody, Forester, CS2).

CS2 has been able to provide the community with a variety of goods produced locally, reducing the community's dependence on imported goods. They have also been able to develop as a forestry service provider to other landowners. As a result, CS2 is able to generate stable income, employ a good number of permanent staff (four community members), and sometimes also generate temporary job opportunities.

(ii) Social distribution/access

In order to apply the assessment model in retrospect, the materials from the earlier fieldwork were interrogated for indicators of the distribution or access to the benefits resulting from the activities and the extent to which interest in ensuring benefit distribution/access is embedded in the CWG's plans and practices.

The local community shares the environmental and socio-economic benefits generated by their CWG. 'There is a huge range of values and benefits', says Woody (Forester, CS2), the woodlands 'create employment, they produce timber, they produce environmental benefits, they store carbon'. He explains that the CWG seeks to make as much use of the benefits the woodland has to offer while ensuring it is being sustainably managed for future generations to do the same.

Most benefits are open to all (residents and visitors). This includes woodland extension – as a result of tree-planting – and environmental improvements – as a result of deer and invasive species control. Community members also benefit from free access to fruits from the community orchard, and they can grow their own vegetables in the polytunnel in the community garden. Other benefits are available to community members at a lower price, such as firewood, timber, and utensils. Residents have previously benefited from locally processed venison at a reduced price. However, because they are no longer able to process the meat locally, the deer they shoot (as part of local deer population control) are now sold to a gain dealer outside of the community.

> We've gotten a little butchery which was running for a few years. We haven't been using it for the last couple of years because the guy who was doing the butcheries moved to a different state. But we are looking at it, getting funding to put more investment to improve the facility and train someone else up to do that. (…) We'd like to get to the point where we are not shipping any off to the gain dealer and processing it all here and developing local markets. (Hawk, Deer Manager, CS2).

Like in CS1, CS2 benefits are available to all, but at a discounted price for local residents. CS2 also strikes to maintain most of its benefits local. Developing processing facilities (for wood and venison) is one way of doing so. This also creates employment locally and adds value to locally produced goods.

(iii) Standard of working conditions

In order to apply the assessment model in retrospect, the materials from the earlier fieldwork were interrogated for indicators of the quality of working conditions and work experiences and the extent to which concerns about job safety, security, and satisfaction are embedded in the CWG's plans and practices.

Like in CS1, creating paid jobs is a focus of the CWG in CS2. Tensions between unpaid work (volunteer) and paid work were present in the discourse of both community members and non-member workers. For instance, Hawk, the Deer Manager in CS2, highlights: 'The deer management that we are doing, obviously, is maintaining the landscape and the habitats, and improving the quality of the habitats, but there is no sort of recognition or payment for that service in effect.'. His complaint refers to the lack of governmental support (funding) for deer management activities. Because there are no longer any deer predators in the UK, their population must be managed through hunting and fencing to avoid overgrazing and allow for natural regeneration. A non-member temporary worker also expressed concern about the 'free' character of labour in environmental care activities.

> I think a lot of landowners think you need to plant trees and stuff like that and they apply for grants and get loads of volunteers (…) [but] the labour that goes into that sort of thing, whether it is pulling lots of rhododendrons out or planting trees, sometimes… it is not really paid that much attention to. And I do think that society needs to go forward, reward people with that sort of labour more often because, I

> mean, I did the double tree planting before I found the job for tree planting and then I was like 'Wait, I can get paid to do this? This is great!'. So, I mean it is okay to have some 'volunteer's day' I suppose, but I do think that there does need to be… specially with this new grants and stuff like that… there is need to be more focus on actually employing people to do stuff like that. Getting the right people who will, do hight quality, hight output. (…) I think sometimes everything is focused on everybody has to volunteer and do this and that. [This] is gonna do more harm than good and maybe we need to have high quality of trees and the funding going to the right places and employing people, because this is really hard work. (Robin, Temporary Worker, CS2).

While creating paid employment is often challenging for CWGs, recruiting people can also be challenging – particularly in very remote areas. Woody, the lead forester in CS2, outlines that 'lack of people' is one of the main barriers to carrying out the work: 'We've got more work than we can manage. And it is difficult to get more people because all the accommodations are full. So, we need to create new accommodations to attract more people and do more stuff.' (Woody, Forester, CS2).

Furthermore, forestry work is often physically demanding and can be especially hazardous for inexperienced and unskilled personnel. In a training event on 'Risk Assessment & Safety' held in 2010, as part of the CWA's skills development scheme, it is stated that 'accident statistics show that woodland work has significant levels of death and serious injury (…) the level of protection needs to be adjusted against the probability and severity of possible accidents.' (CWA, TER63).

The work being carried out during the fieldwork in CS2 was the removal of Rhododendron ponticum by hand. Rhododendrons (including the ponticum) were introduced in the CS2 area by the Victorians, who loved their luscious pink blooms. By the time of the community buy-out, the lower half of the main woodland was dominated by rhodies – many areas were so dense that it was impossible to get through unless by crawling or climbing through the canopy. The forest floor in these areas was dead. This illuminates the impact of past environmental mistreatment on the community's present and its social metabolic profile. CS2 had previously undertaken a rhodies eradication operation, and the work done during the 2020 fieldwork concentrated on detecting and removing all new bushes to prevent the rhodies from taking hold again. This task was performed manually, using pickaxes and small saws to cut through dense sections.

In addition to the Project Manager (resident and female) and three permanent forestry workers (all residents and male workers), six temporary workers (four female and two male) were hired (all non-residents). For the removal of rhodies, workers were divided into three-person teams,

led by one of the permanent forestry workers. After reaching the work area, the workers would stand two metres apart and walk in a straight line through a predetermined wooded segment until the entire area was covered. When rhodie was found, it had to be dug up with all its roots, shaken to dislodge the soil clinging to the roots, and then hung on a nearby tree to dry out and die. The plant had to be hung quite securely to avoid being blown back to the ground by the wind. When large rhodie bushes that could not be removed by one person were spotted, workers would call out to teammates for help. If a plant was too large to be removed by hand, it would be marked on a map using GPS coordinates and later removed with a chainsaw or herbicides.

The work was physically demanding, involving six to eight hours of walking through the woods and up and down hills, but the overall severity of the job varied greatly depending on the woodland area. That is, the work was generally taxing but not difficult or hazardous to perform on standing woods and open terrains, but it was very difficult to perform in windblown areas. When windblown areas were being worked on, temporary workers routinely complained (at the shared accommodation) of bruises and pains caused by numerous slips and falls, as illustrated:

> The terrain can be really rough at points where the wind is blowing, crawling over fallen trees, underneath them and everything is slime and collapse and you can't take five steps forward without the ground disintegrating bellow you… and takes you forever to get anywhere, so.. yeah... a lot of pine needles in the eyes. (Robin, Temporary Worker, CS2).

This is further illustrated by the experience of another temporary worker, Sky. He was very pleased with his temporary job on the first day. He said that, compared to other jobs he typically performs and taking into account that it included free accommodation, this job was well paid. However, Sky quit the job on the third day of work as he found the job too difficult and unsafe. He was the oldest of the temporary workers (being in his forties), whereas the others were in their twenties (three workers) and thirties (two workers). Before leaving, Sky said the job was 'not worth it' because it was too risky. He claimed to have fallen multiple times and was afraid of falling over a protruding branch – which could 'perforate an organ or something' (fieldnote quotes, CS2). If something bad happens to you, he continued, you may be unable to call your teammates for help because you may lack the breach. Overall, Sky felt that health and safety measures were lacking in CS2. Workers were not provided with high-visibility vests or helmets (he observed); they were only handed gloves and pickaxes – some, but not all, also received a small saw and an emergency whistle.

Other temporary workers have described the difficulties of the work in recorded interviews. When asked about health and safety, they said:

> Well… I mean… on the one side of things when you're crawling underneath those trees and something collapse there is always a little bit of fear at the back of my mind like 'what if something decomposes above me and crushes my head, you know?' Yeah, so I suppose there is some dangers in that sense, but… What can you do? You know what I mean? (Robin, Temporary Worker, CS2).

> The challenges are probably… the weather, it is probably the biggest thing. Because we've been out whatever the weather is we still go out and do it. And some of the terrain as well, windblown has been particularly difficult. And then sometimes actually getting the rhododendrons out can also be quite challenging. (…) So, salary and accommodation has been brilliant. I mean health and safety wise, I guess they could provide more personal protection, but in reality… for example going through the windblown wearing a hat isn't exactly practical anyway, so… there is not really much, I mean. Ideally if the weather got much worse than it was, or like the winds were higher, stronger than they were then maybe we wouldn't gonne out in that kind of condition… but it never got that quite bad. (…) It is hard I guess to do a job like this and be completely safe, it is quite physically demanding and like I said the terrain… it is not always ideal. But I've never felt like I was in danger or anything, particularly… I don't know. And we always understand that, we are told from the beginning the protocol of who has the first aid kit and what to do in the event of you know, who to call and that sort of thing. So, yeah… it's alright. (Daisy, Temporary Worker, CS2).

Workers' concerns about health and safety measures in CS2 are evident in the statements above, but it is also clear (especially in Daisy's quote) that workers are protective of their employer. When this data is paired with the informal everyday conversations at the accommodation (which the researcher shared with temporary workers), this protective layer in the formal interview becomes even more apparent. This protective posture results from workers' identification with the employer (the community) and their cause (non-profit, socio-ecological mission).

Despite the constraints of the job, temporary workers indicated that working for a 'community organisation' provides them with significant motivation. This is exemplified by the following quote, in which Robin compares her experience working on forestry projects for private organisations (commercial forestry) to her experience working for a CWG:

> The bosses are really nicer in here as well. So, commercial is better paid definitely, whereas this is like government grants, so what can you pay? I mean £9/hour is reasonable, I'm 22, minimum wage is 7 or something like that, this is what I was getting when I was working in a bar a few months ago. So, it is not terrible. Obviously, I knew I was downgrading my pay quite a lot when I went for it, but I was like 'aw, natural restoration project?! For [a CWG]?! Forest Trust?!', I mean… that sounds great! And it is so more rewarding in lots of other ways. (Robin, Temporary Worker, CS2).

The findings indicate that workers' identification with their employer and the cause for which they work leads them to accept (to a certain extent) suboptimal health and safety measures and lower remuneration.

Informal conversations with permanent (community member) workers revealed that they find some health and safety regulations excessive. Woody, the leading forester in CS2, explains his views in an interview:

> Health and safety? Ah.. well… Just ask to be sensible. Yeah, obviously we are using chains, we're using tractors, we're lifting things, and we're using all kinds of machinery, we've got people moving around, the public moving around. We are managing a productive forest that have got a lot of public footpaths in it and lots of people moving around inside it, those two things have to happen at the same time and we just have to manage it. I don't think… Things are really dangerous if you are doing something silly

Failure to meet health and safety requirements can be the result of underestimating their importance or of a deliberate compromise to 'get things done' with limited time and resources. Because of this underestimation, critical risk assessment, training, and safety equipment may be neglected.

Since permanent and temporary employees performed the same tasks regardless of contract type, it is reasonable to assume that their experiences were similar. However, CS2 data revealed that the work experience was complexified by the presence of two distinct community membership statuses. *Members* and *non-members* differed greatly in their participation in decision-making, enjoyment of the fruits of their labour, and exposure to safety risks. Community member workers were able to participate in decision making and to enjoy the benefits created by their work (as they live in the area). They were also more familiar with the area and had experience doing forestry work. On the other hand, non-member workers could not participate in decision-making, nor benefit (directly) from environmental improvements they contributed to produce, and they were

less familiar with the terrain and work activities – thus being more exposed to risks. This reveals a significant difference in work experience between *members* and *non-members*.

Overall, data indicate that CS2 has failed to ensure optimal health and safety measures, and that the work experiences of members and non-members differed greatly, with the latter remaining largely alienated (both in terms of defining their work activity and from the product of their labour).

(iv) Standard of care for nature.

In order to apply the assessment model in retrospect, the materials from the earlier fieldwork were interrogated for indicators of the standard of environmental care and the extent to which concerns about environmental integrity, biodiversity, and animal welfare are embedded in the CWG's plans and practices.

CS2 has largely benefited the local wildlife and ecosystems. Extensive replanting is progressively reversing years of degradation. However, tree saplings have been imported from the Edinburgh region because CS2 lacks a local tree-nursery. CS2 also promotes forest natural regeneration by controlling the deer population through fencing and hunting, as well as by eradicating invasive species. For instance, the rhodies removal operation observed during fieldwork in CS2 is very beneficial to the local environment. Rhododendron ponticum is considered the most harmful and pervasive alien species in semi-natural terrestrial ecosystems in the UK. They are a threat to the environment because they spread rapidly, dominate and out-compete other plants, creating a dense shady canopy, inhibiting the regeneration of other plants and trees, hosting pathogens that cause tree diseases, damaging aquatic ecosystems near rivers/streams, and they are toxic to most herbivores and honeybees.

Community members highlighted the value of the woodlands in many aspects, from a broad environmental perspective but also from a use-value perspective, whether in the production of goods, employment and income generation, or leisure. As Rose explains the value of the woodland to the community:

> It is valued for its kind of ecological value. It is also valued for aesthetic, for the resources that it provides – that is not just the products that come out but also its paths and tracks, and bike tracks… sculpture trail and things inside it. And it

> provides jobs as well and supports the local economy. (Rose, Project Manager, CS2).

On the other hand, non-community members such as visitors and the temporary workers focused on the broad environmental value of the woodlands and their aesthetic value and leisure/health benefits.

> I know that there is a level of commercial value in there, what it is I don't really know, but it is not what I'm kind of interested in. I'd say the value of the forest is mostly to do with the ecosystem and the habitats for wildlife… nature, the planet as a whole! I just love being around trees. I think that having trees and nature around is just general well-being. (Daisy, Temporary Worker, CS2).

Overall, CS2 has shown that they value their woodlands for a number of commercial and non-commercial reasons and has demonstrated that they are benefiting the well-being of local ecosystems and non-human species by controlling/eradicating environmental hazards and promoting woodland expansion and native biodiversity.

(v) Socio-metabolic assessment

CS2 has been able to provide the community with a variety of goods produced locally, reducing the community's reliance on imported goods. However, CS2 is very business-minded, which may result in revenue-generating activities being prioritised over socio-environmental concerns. Data shows evidence that CS2 is contributing to shaping a healthier social metabolism by controlling/eradicating environmental hazards as well as by creating local employment. CS2 is also believed to have contributed to the expansion of forest cover and biodiversity (since they have planted over half a million trees over the years). Nevertheless, no information was provided regarding the amount of trees harvested over the years. Therefore, it is impossible to determine whether an increase in forest cover or biodiversity occurred. In addition, its commercial orientation, which includes areas dedicated to timber production in excess of local demands (based on harvesting and replanting), leads to soil degradation. However, it generates income that contributes to the survival and autonomy of the organisation. Finally, data show that CS2's health and safety precautions during the rhododendron removal (in high-risk areas) were suboptimal, exposing workers to hazards.

7.4.3. Limitations of the present application and future developments

This subsection critically evaluates the application of the assessment model conducted in this study, taking into consideration its limitations, challenges, and avenues for future applications and development.

The socio-metabolic assessment model developed in this study identified and integrated key indicators to evaluate the overall health of a given social metabolism. However, its application to understand to what extent and how Scottish CWGs have contributed to shaping a healthy social metabolism was only partial. This is because this application could only be conducted retrospectively since the model did not exist prior to fieldwork, but rather resulted from fieldwork experience as well as theory analysis. Therefore, this assessment model still needs to be properly applied to empirical research.

Furthermore, the application of the model conducted in this study was solely based on soft/discursive data, not collecting hard evidence regarding environmental quality (e.g., soil/water samples). An exclusively discursive and observational approach was adopted due to the researcher's lack of expertise in the natural sciences and due to time restrictions. It is believed that this assessment model would be better applied by a multidisciplinary team of researchers having expertise on social and natural sciences, as well as access to the required resources and time to analyse hard/material data relating to the health condition of the environment.

Lastly, it is considered that the socio-metabolic model produced in this study is extremely versatile, meaning that it could be adapted and applied in different sectors. Due to its in-depth orientation, however, it is best suited for analysing small sections of a social metabolism, such as the productive activity of small communities or organisations. In other words, this model might not be suitable to empirically assess the level of health of the social metabolism of a city or a country. The reason for this is the difficulty of simultaneously gathering and analysing social and environmental data on several productive activities.

7.5. Summary

This chapter draws on Marx's critique of capitalism to clarify, from an ecosocialist theoretical approach, what a sustainability transition entails. It creates a coherent construct (a model) that helps

operationalise Marx's critique of capitalism for empirical research in the field of sustainability transition. That is, it defines indicators and their interplay in fostering progress toward a healthier social metabolism, hence facilitating their observation and analysis in empirical research. This model serves as a tool for both the advancement of knowledge and the promotion of a healthy social metabolism. As a result, it contributes to advancing the discussion and helping to shape actions for transitioning out of the capitalist system and into a mode of production that can meet human needs (for everyone) without jeopardising the well-being of the sources of all wealth (i.e., nature and labour).

The application of the model to two case study CWGs has shown mixed results regarding these communities' contributions towards a healthier social metabolism. The analysis provided insight into where and how these CWGs have contributed to shaping a healthy social metabolism in the Scottish forestry sector, as well as where and how they failed to challenge (or even contribute to maintain) broader unhealthy capitalist goals and practices.

On the one hand, those behind a CWG typically reside in (or nearby) the woods they manage and have an emotional attachment to them – which can be accompanied by a history of social struggle (like in CS1 and CS2). Because they inhabit the forest and are a part of it, they care deeply about its well-being, seeking to make use of it without compromising its health and beauty. These close ties favour less exploitative relations of production.

Data from case studies has shown evidence that CWGs have helped restore and expand Scotland's biodiverse native forests. They have done so by phasing out monocultures, planting trees and helping natural regeneration, controlling overgrazing and eradicating invasive species, monitoring fauna and flora populations, and educating people about the environment. At the same time, CWGs have produced many goods that have local use-value, such as firewood, food (in community orchards and gardens), timber, wooden utensils, crafts, and some furniture. These goods also generate income that supports local employment and generate income to be re-invested in woodland management or other projects that benefit the local community – rather than being accumulated by a few. CWGs also create and improve spaces for leisure, exercise, and outdoor learning. In doing so, they have helped to promote physical and mental health. Furthermore, CWGs seem to provide workers with a higher degree of fulfilment than conventional for-profit businesses.

This is because workers believe their work is contributing to a worthy cause rather than serving to enrich the already rich.

On the other hand, the vision of sustainable development pursued by Scottish CWGs is closely linked to market relations, particularly in the forestry and tourism industries. Thus, while the case study CWGs created multiple social and environmental benefits locally, they continue to promote a market-dependent way of life and model of development over non-market alternatives. As a result, they are subordinated to broader unhealthy relations, which limits their capacity to qualitatively transform the community's overall social metabolism.

Data from CS1 shows limited capacity to provide job security, reliance on external financial and volunteer support, and maintain unhealthy capitalist practices by subscribing to neoliberal 'reparative' logic (i.e., a carbon credits generation scheme). CS2 shows a qualitative difference between the work experiences of those who are members of the community and those who are not. Community members had influence over decision-making, better access to the benefits resulting from their work, and were exposed to fewer safety risks. Therefore, the work was more meaningful and self-fulfilling to them.

Overall, the application of this assessment model offers evidence of how these indicators interact within different scales of action and shows the ability of this tool to critically engage communities towards transformative action.

CHAPTER VIII– ENJOYING THE FRUITS, STORING THE SEEDS (CONCLUSION)

8.1. Overview of this study

This study investigated how and to what extent Scottish Community Woodland Groups (CWGs) contribute to a sustainability transition using an ecosocialist theoretical framework. Based on the existing literature, it contended that Scotland's recent trend toward community participation in forestry can have very different meanings and outcomes depending on three key aspects: (i) their definition of *community* and participatory mechanisms; (ii) the effective *power* CWGs have within the socio-political structure in which they exist; and (iii) the *ends* pursued and *means* employed by CWGs in their forestry projects. To explore these three aspects, this study conducted a period of participant observation and interviews in two case study CWGs, gathered official web-based information from 128 CWGs, and reviewed 251 documents from the Community Woodlands Association (CWA). This thesis argues, based on empirical evidence, that CWGs in Scotland have played an important role in fostering a change away from harmful capitalist principles and practices in woodland management. However, communities' capacity to steer and drive change depends on their access to the *means of production* as well as on the strength of their *labour power*. This means that, in order to truly empower CWGs, government agencies should ensure that communities have the resources, knowledge, skills, and political space they require.

In chapter V, this thesis addressed the question (RQ1): *Who is the 'community' in Scottish CWGs, and how is this community organised for forest management?* Findings showed that the 'community' in Scottish CWGs is usually defined by geographical and political boundaries. Day-to-day decision-making is led by community elected representatives (i.e., the Board of Directors), while open channels of communication are maintained between the Board and the broader community. As an organisation, Scottish CWGs commonly assume a charitable company form, which enables them to enter into contracts, own property, and employ people while limiting their personal liability. However, despite operating as businesses, CWGs substantially differ from the capitalist business model as they are purpose-driven rather than profit-driven. Data showed that CWGs are typically driven by both social and environmental goals, with a focus on improving living conditions in their communities. In doing so, CWGs primarily serve the interests of the local

community by focusing on the production of real wealth (use-value) in opposition to abstract wealth (profits). That is, they favour the creation of use-value benefits and employment opportunities for community members over profit maximisation.

In chapter VI, this thesis addressed the question (RQ2): *What factors/actors have contributed to the emergence and empowerment of CWGs in Scotland?* Findings contributed to situating Scottish CWGs within their wider socio-economic context, providing insights into how they are shaped by external forces while simultaneously contributing to the reshaping of the legal and political structures in which they operate. Data showed that CWGs' capacity to follow their own goals – creating an alternative model of forest governance (a distinct social metabolism) – depends on their access to the *means of production* (i.e., natural, legal, and financial resources), as well as on the strength of their *labour power* (i.e., knowledge and skills). Although a mix of bottom-up and top-down forces have contributed to the rise of CWGs in Scotland, the data suggests that political organisation within and between CWGs is the main force pushing for communities' access to *means of production* and *labour power* development. Therefore, in order to assume meaningful control of local woodland management and to have a voice in national debates about sustainable development strategies, CWGs must invest in both internal capabilities and intercommunity alliances.

In chapter VII, this thesis addressed the question (RQ3): *How can a model of assessment better inform about the overall health of a given social metabolism and the possibilities for enhancing it?* This study unpacks the concept of *social metabolism*, moving beyond the notion of material and energetic flows between nature and society to a more nuanced understanding of social metabolism as the organisation of a way of living through the appropriation of nature and labour. Based on Marx's critique of capitalism, it also clarified what constitutes a healthy and unhealthy social metabolism and developed an original assessment model that identifies and combines key socio-metabolic indicators of health. Lastly, this assessment model was utilised to analyse the health condition of the social metabolism being shaped by two case-study CWGs. Findings revealed mixed results, providing insights into where and how these two CWGs have contributed to shaping a healthy social metabolism, as well as where and how they have failed to challenge (or even contributed to maintain) unhealthy capitalist ends and means at a broader level. Therefore, despite the constraints of its retrospective application in this study, this assessment model proved

to be a valuable tool for assessing progress in an ecosocialist (or transformative) sustainability transition agenda.

Taken together, these findings indicate that Scottish CWGs play a significant role in promoting a transition from the unhealthy capitalist metabolism to a healthy one. The emergence of CWGs in Scotland indicates a reunification of land and people, which contributes to the transition away from capitalist patterns of appropriation and expropriation of labour and nature. By taking ownership of land, communities protect natural resources from being overexploited and inhibit the privatisation and accumulation of benefits as profit. Thus, they are able to promote a qualitatively distinct relationship between the community and local woodlands, as well as improve living conditions and restore environmental degradation.

It would be an oversimplification, however, to conclude that CWGs only make advancements towards a more fair and sustainable approach to forest management. On the one hand, CWGs have been making a distinctive contribution in the transition towards a healthy social metabolism in the Scottish forestry sector. Findings showed that community-members as managers prioritise the well-being of their community and local ecosystems. Therefore, CWGs demonstrated that they are more committed to the ideals of social justice and environmental integrity than traditional business-led and state-led initiatives. On the other hand, CWGs exist within a broader social metabolism (beyond communities' borders) which can undermine communities' decision-making power, values, and outcomes. This occurs due to the influence of vested interests committed to the *status quo*, who control the higher levers of change. In this way, this shift towards community-led forestry has been a mechanism to rescale structural problems by making communities absorb the depredatory costs of and help maintain the capitalist mode of production and consumption. For instance, by tasking communities to produce carbon credits or to serve the compensatory logic of the 'economy of repair' in other ways (Fairhead, Leach, and Scoones, 2012; Gilbertson and Reyes, 2009; Sullivan, 2013a).

It should be recognized that CWGs do not exist in a vacuum. They sit within a much wider social metabolism, where the logic of capitalist production dominates. However, the interweaving of alternatives with the prevailing mode of production should not be viewed as inevitably leading to their co-optation or dismantle, rather, this represents the ongoing friction between being constrained by current structures and changing them. It is, therefore, critical to consider not just how CWGs emerge from changing structures but also whether and how they continue to operate

as an alternative that challenges harmful capitalist principles and practices in woodland management.

If the objective of grassroot organisations such as CWGs is to overthrow and transcend the unhealthy capitalist social metabolism, communities need to critically analyse what is being proposed to them, confronting neoliberal strategies that help to maintain the *status quo*. The socio-metabolic model created in this study provides some advice for communities evaluating top-down proposals and developing their own transformative strategies. Yet, sustainability transition cannot be promoted (at the scale required) by a single community. Hence, it is crucial to foster alliances that will question and disrupt the *status quo*. The emergence of a new socio-metabolic order relies on growing social participation in broader emancipatory and transformative movements.

8.2. Contributions to knowledge

This thesis makes theoretical and empirical contributions to knowledge on the characterisation and organisational structure of CWGs in Scotland, the power relations that shape their socio-political environment, the strategies they employ to strengthen their capacity to influence system change, and the operationalisation of an ecosocialist approach to sustainability transition research and action (by creating an original socio-metabolic assessment model). Each contribution is detailed below.

The following theoretical contributions were made:

- Based on a literature review that was particularly attentive to the diverse uses that different groups of people made of the woodlands, this study produced an ecohistorical materialist account of Scottish woodlands and the events that led to the contemporary emergence of Community Woodland Groups (CWGs) in Scotland. In doing so, it combined existing data to create novel graphs that show the overall decline of Scotland's woodland cover from its historical maximum to minimum – see Figure 2.4.1. – and the recent increase of Scotland's woodland cover from 1919 to 2019 – see Figure 2.4.2. (a) – which was accompanied by other two graphs illustrating the current species composition and age profile of Scottish woods – see Figures 2.4.2. (b) and (c). Furthermore, by differentiating species composition in Figure 2.4.2.

(a) and (b), this thesis highlighted the controversy in the contemporary 'success' discourse that celebrates the roughly 13% increase in woodland cover in Scotland between 1919 and 2019 by showing that the majority of this increase is composed of monoculture of non-native pinewood. Thus, Scotland's recent woodland expansion indicates the spread of productive forestry (such as the lumber and paper industries) rather than ecological restoration. All in all, the literature review and original graphs provided in this thesis facilitate the depiction of Scotland's shifting patterns of woodland cover and contribute to a better understanding of the confluence of human history and ecological change.

- Instead of accepting preconceived notions of 'community' and 'community participation', this study added to the theoretical understanding of the term 'community' in Scottish CWGs. By articulating empirical data with theory (Head, 2007; Shaw, 2008; Blackshaw, 2010), this study showed that Scottish CWGs are characterised as 'community' because they tend to be defined by geographical boundaries and membership rules that ensure local residents retain decision-making control over the group. Nonetheless, this research found that these groups do not always have high levels of community participation and often assume a business form, which sets them apart from popular beliefs about what a community organisation should be and how it should function. On the other hand, findings also revealed that these groups are driven by goals that benefit the entire community, such as improving the local environment and living conditions. Hence, this study concludes that Scottish CWGs are primarily bottom-up oriented since they are not only community-based projects, but they are organisations controlled by the community (via a representative structure) and focused on the community's interests. It should be noted, however, that these groups are subject to (and often struggle against) the constraints and influences imposed by the socio-political structure in which they are embedded.

- While exploring the evolution of community-led woodland management in Scotland, this study contributed to a greater understanding of how CWGs have developed the power to transform their own social metabolism (at the local level) and influence system change at a higher-level regarding socio-environmental issues. Based on empirical evidence and through a Marxist analysis, this study added to empowerment theories by arguing that CWGs' capacity to define their practices and follow their own goals – creating an alternative model of forest governance

(a distinct social metabolism) – depends on their access to the *means of production* (i.e., natural, legal, and financial resources), as well as on the strength of their *labour power* (i.e., knowledge and skills). That is, in order for CWGs to be truly empowered to make decisions and act, they must gain access to key resources and knowhow. According to the data, Scottish CWGs have struggled to gain those by forging intercommunity alliances that favour their political disputes over better structural conditions (such as land reform and funding) and promote peer solidarity in the development of knowledge and skills.

- This thesis offered a theoretical critique of dominant sustainability assessment models by showing that dominant models do not call into question the intent of the capitalist system. Consequently, they do not reach the depth of change that a transformative approach to sustainability transition requires. In doing so, it highlighted the need for new tools coherent with a radical, transformative approach to the sustainability transition problem.

- This study moved beyond the purely biophysical understanding of the concept of social metabolism – which is focused on material and energetic flows between society and nature. Instead, it offered a more nuanced understanding of social metabolism as the organisation of a way of living through the appropriation of nature and labour. This refined understanding of the concept enabled the researcher to more effectively integrate social and ecological dimensions into a comprehensive socio-metabolic assessment model.

- Finally, this thesis drew on Marxist theory and a growing ecosocialist literature (Foster and Clark, 2020; Burkett, 2017; González de Molina and Toledo, 2014) to produce an original socio-metabolic assessment model. This assessment model operationalised Marx's critique of capitalism for empirical research in the field of sustainability transition. That is, it defined indicators and highlighted how they interplay in fostering progress toward what could be considered a healthy social metabolism. This model serves as a tool for both the advancement of knowledge and the promotion of a healthy social metabolism. It provides theoretical and methodological innovations that integrate ethical and political constraints into the analysis of socio-metabolic processes, thus taking into account the intent underlying productive systems, which is a factor missing from dominant sustainability assessment models. As a result, it contributes to advancing theory and shaping actions for transitioning out of the capitalist system

and into a mode of production that can meet human needs (for everyone) without jeopardising the well-being of the sources of all wealth (i.e., nature and labour).

The following empirical contributions were made:

- This study added to existing knowledge on what characterises the 'community' within Scottish CWGs and how they operate (Lawrence et al., 2009; Ambrose-Oji, Lawrence, and Stewart, 2015; Lawrence, 2022). It provided evidence that Scottish CWGs operate mostly through representation and often adopt the form of a *charitable company* (69 CWGs out of 129 adopt this organisational form). However, it suggested that while CWGs may resemble ordinary enterprises, their operational logic differs substantially from the capitalist business model in that they are purpose-driven rather than profit-driven. Furthermore, unlike in capitalist businesses, any profits generated are reinvested into community projects (that aim to improve the local environment and living conditions for all) rather than accumulating in the hands of a few individuals.

- Based on official web-based information gathered from 128 CWGs, this study identified the six most prevalent goals pursued by CWGs in Scotland, namely: To increase and improve access to cultural, educational, and recreational amenities and activities (92%); To conserve and restore Scotland's natural heritage, ecosystems, and biodiversity (89%); To promote community/sustainable development (50%); To create local employment and opportunities for small businesses' development based on timber and non-timber products and services, and to promote training (44%); To prevent or relieve poverty, food insecurity, fuel poverty, and to provide affordable housing (43%); and To advance local citizenship, community involvement, volunteering opportunities, and to develop the spirit of community (38%). In addition, this thesis explored the significance of each of these goals to the well-being of local communities and ecosystems, and it provided examples of CWGs' efforts to attain them.

- This study contributed to further knowledge on the evolution of community-led woodland management in Scotland and on how CWGs have continued to struggle to strengthen their capabilities and authority in the forestry sector. It showed evidence of community struggles for land ownership, financial support, knowledge and skills development, as well as evidence of

their intercommunity channels of communication and collaboration. These findings have significant implications for the understanding of how key actors, such as community members, the CWA, and government agencies, play an important role in genuinely empowering CWGs.

- This study provided further evidence that Scottish CWGs are closely linked to a long history of grassroots resistance to class oppression and are part of ongoing struggles for ecological and socio-cultural revival. Yet, it also showed evidence that these CWGs have been traversed by neoliberal discourses around the commodification of natural resources (e.g., carbon credit generating schemes) and the marketisation of the third sector (e.g., the 'businessfication' of non-profit organisations accompanied by the erosion of the welfare state). Moreover, this study highlighted the lack of critical data on the origin of property transferred into community ownership, thereby raising important questions as to whether the Scottish land reform is primarily a redistribution of excessively accumulated private assets or a strategy for managing 'public assets.' These finding are in line with previous research, which found a hybridity between grassroots change and rolled-out neoliberalism (Raco, 2005; Ritchie and Haggith, 2012; Ojha et al., 2016).

- Finally, this study provided the first application (or test) of its original assessment model, which, albeit a retroactive technique, demonstrated the model's usefulness for assessing whether and how a given community or organisation has promoted a transition to a healthier social metabolism. The model was applied retroactively to data gathered from two case study CWGs in Scotland. As a result, this thesis was capable of shedding light on areas in which each case study CWG challenged unhealthy capitalist practises, as well as areas in which each reproduced or contributed to their maintenance.

8.3. Impact Statement

A few remarks might be made with respect to the implications of the findings and contributions of this thesis, both inside and outside of academia.

This study offers a comprehensive and workable assessment of a transition away from an unhealthy social metabolism towards a healthy one. In doing so, it contributes to the

operationalisation of the ecosocialist (transformative) theoretical approach in sustainability studies, helping to advance a counter narrative to the hegemonic definition of sustainability and its models of assessment and guidance towards a sustainability transition. This novel assessment model can aid scholars in operationalising the ecosocialist theory for empirical study, as well as communities in applying this transformative framework to their own practise, and policymakers in designing new policies and strategies towards sustainability. Therefore, it is a useful tool for scholars, communities, and policymakers to create new strategies and assess progress towards a truly transformative sustainability transition.

This study also contributed to a better understanding of how a 'community empowerment agenda' may be implemented. It showed evidence that meaningful community involvement in governance can only occur when decision-making is shared and capacity to act is developed. As a result, this thesis argued that, in order to genuinely empower community-led organisations, government agencies should guarantee that communities have the support they need to gain the required resources, knowledge, skills, and political space. They should support the development of these communities' capabilities rather than hinder its development by imposing burdens that communities are unprepared to bear. They should also prioritise incorporating community interests and concerns into state-level goals and plans rather than imposing top-down targets on community initiatives.

It should be noted that the primary purpose of this research was to provide Scottish CWGs with useful knowledge to assist them in transforming their reality by challenging harmful structures, goals, and practices and by promoting social justice and sustainability. Therefore, this study critically examined the political and material conditions that were presented to them, as well as their organisation, development strategies, functioning, and outcomes, in order to shed light on what they are doing well and where they could improve in accordance with an ecosocialist (transformative) vision. As a result, this study offered some insight into areas in which CWGs could potentially take additional measures to advance a transformative agenda. This could include the refusal to participate in carbon credit generating schemes, developments in job safety and long-term employment prospects, and greater mobilisation in advocating for better government assistance, structural reforms, and climate action at a system-level.

Last but not least, it should be acknowledged that CWGs and other community-led initiatives cannot promote a transition to a sustainable future on their own. Imposing such a burden on them or measuring their accomplishments against such high standards would be unfair and unproductive. Governments, inter-government agencies, businesses, researchers, and the general public must all take part in this transition. Hence, this study suggests that further public mobilisation, research, and political will are required to successfully advance a transition towards a healthy social metabolism.

8.4. Limitations of the study

While this thesis met its research aims, a number of constraints emerged. Whenever possible, these constraints were mitigated throughout the research process. For instance, a partial re-design of the research questions and methods was conducted due to COVID-19 restrictions. However, some limitations were unavoidable due to constraints on time and scope. Furthermore, doing research becomes an even more challenging effort in multidisciplinary fields such as sustainability transition due to the numerous variables to be potentially considered. These limitations and their implications for this study are discussed in this section.

The socio-metabolic assessment model developed in this study identified and integrated key indicators to evaluate the overall health of a given social metabolism. However, its application to understand to what extent and how Scottish CWGs have contributed to shaping a healthy social metabolism was only partial. This is because this application could only be conducted retrospectively since the model did not exist prior to fieldwork, but rather resulted from fieldwork experience as well as theory analysis.

While this first testing has confirmed the model's usefulness in critically assessing progress (or lack thereof) towards a transformative sustainability transition agenda, this assessment model still needs to be properly applied to empirical research. To better evaluate its usefulness for empirical research and in shaping transition strategies, this assessment model would have to guide the design of future research prior to data collection – so that the evidence from observations, interview questions, and potential biophysical samples could be fed into the assessment model.

Furthermore, the application of the model conducted in this study was solely based on soft/discursive data, not collecting hard evidence regarding environmental quality (e.g., soil/water samples). An exclusively discursive and observational approach was adopted due to the researcher's lack of expertise in the natural sciences and due to time restrictions. It is believed that this assessment model would be better applied by a multidisciplinary team of researchers having expertise in social and natural sciences as well as access to the required resources and time to analyse hard/material data relating to the health condition of the environment.

Some of the findings reported in this thesis are based solely on two in-depth case studies and, as a result, are not generalizable to over 200 CWGs throughout Scotland. It is important to point out that the findings presented in Chapter VII are only representative of the case-study communities analysed, i.e., Case Study 1 and Case Study 2. The findings outlined in Chapters V and VI, on the other hand, were based not only on the data gathered from these two case studies but also on comprehensive data gathered from 128 CWG webpages and 251 CWA documents. As a result, these findings are more generalisable, yet they should not be assumed to apply to every CWG in Scotland.

Other limitations of this study relate to its scope. This study did not examine activities unrelated to woodland management, despite the fact that these activities may be performed by CWGs and benefit the local community and/or environment (e.g., solar/wind power generation). The exclusion of non-woodland activities was intended to make this research more manageable by restricting data to and focusing attention on forestry-related situations. In doing so, this study may have overlooked important links between CWGs' management of local woodlands and other activities.

Another problem in the execution of this study relates to the amount of data gathered. Given that this was a time-constrained, single-investigator study, the amount of data gathered and analysed was excessive – which meant that certain sources could be fully read only once (i.e., webpages and the CWA's documents). This might have resulted in the loss of valuable data during the coding process. It is recommended that future research under comparable conditions (i.e., time constrained, single-investigator) should reduce the amount of data collected/analysed. This would reduce the workload, prevent time extensions, and likely improve the quality of the analysis.

Another limitation of this study, as with all research, is the issue of the researcher's bias. The researcher responsible for this study subscribes to the idea that there is no such thing as full neutrality in research because people cannot separate themselves from their personal life experiences and worldview. She believes, however, that research should be conducted with a commitment to the advancement of knowledge and the common good. This means that researchers should strive to be aware of their own biases, carefully examine all evidence, and consider multiple potential interpretations and meanings of the data. Furthermore, as a countermeasure to any unnoticed biases on the part of the researcher, this thesis benefited from comments from the supervisory team on its drafts.

8.5. Future Research

The findings and limitations of this study indicate a number of potential paths for future research. This section highlights some of these paths and discusses how they could potentially contribute to the existing body of evidence and knowledge on the subject of this thesis or related subjects.

The most significant area for future research is the testing and refinement of the assessment model developed in this thesis. To better evaluate its usefulness for empirical research and in shaping transition strategies, the present socio-metabolic assessment model must be adequately tested - that is, tested in a non-retrospective manner. To properly test it, the research design of future studies would need to be built around the assessment model prior to data collection – so that the evidence from observations, interview questions, and potential biophysical samples could be fed into the assessment model. Furthermore, as explained in the preceding section, it is considered that the present model would be more effectively employed by a multidisciplinary team of researchers with competence in social and natural sciences and access to the resources necessary to analyse hard/material data. Further opportunities for the wider testing, improvement, and sharing of the model and its outcomes in community and academic forums, publications, and follow-up grant applications are being explored.

As with any case study research, it would be desirable to carry out similar research in other CWGs in Scotland and compare the findings to those reported here. Research on urban CWGs is especially advised, as this study only collected in-depth data from rural CWGs – that is, participant

observation and interviews were only conducted in two case-study communities, which were both located in very remote rural areas of Scotland. It would also be beneficial to compare the results of this study with those of other studies that seek to employ its original assessment model as well as those that take a different theoretical and/or methodological approach to the same or similar questions.

There is also a need for further research into some of the secondary components of this study. For instance, a focused and comprehensive investigation of Scotland's land reform is required to determine the share of land that has been transferred from the state, as opposed to private landowners, into community ownership. The data collected in this study (which encompassed only 25 CWGs) was insufficient to draw any conclusions. Further research in this area is, therefore, required since it is important to know from whom land is being transferred to communities in order to comprehend whether and how the overconcentrated pattern of land ownership in Scotland is changing, as well as to evaluate its true implications. Research around this question has been constrained by a lack of readily available data, which means that a prospective researcher would have to conduct a broad survey (or something similar) with landowning CWGs in order to gather the required data.

Future research on Scotland's land reform should also try to figure out why, even though the land reform law advanced, the uneven distribution of land in Scotland has not been significantly altered. According to recent research by Lawrence and McGhee (2021), the legal system is too complicated and expensive for communities, which contributes to this slowness. Land reform in the country could benefit from further research into how to improve this legal process and on additional legal reforms. For instance, additional measures could be taken to ensure a more just pattern of land ownership in Scotland, such as the establishment of a cap on land ownership[36].

The steady withdrawal of financial support from CWGs and other community-led and charitable organisations by the Scottish government is another aspect of this study that requires additional evidence. Based on interviews and CWA's documents, this study suggests that the government's financial assistance for CWGs has been progressively diminished. Better evidence is required to understand the scope of this occurrence, as well as its causes and effects on community

[36] Mercedes Villalba, Labour MSP, has proposed a bill limiting how much of Scotland rich landowners can buy https://labouroutlook.org/2022/05/10/land-justice-the-next-chapter-in-the-gains-of-devolution-story-mercedes-villalba-msp/

projects. A review of government funding/grant opportunities, their values, conditions, and number of beneficiaries over the past 20 to 30 years is required to offer greater evidence on whether and how quickly the state is withdrawing financial assistance. Additional research on the shifting patterns of government financial assistance, as well as non-financial assistance, will help advance understanding of whether current policies to empower communities are truly fostering a democratic share of power, or whether they are simply shifting welfare responsibilities to communities and non-profits in order to reduce government expenses.

Another area where further research is welcome is the phenomenon of non-profit organisations increasingly becoming business-like (Dart, 2004; Claeyé and Jackson, 2012; Maier, Meyer, and Steinbereithner, 2016; Suykens, Verschuere, and De Rynck, 2016; Calvo and Morales, 2016). Future research could explore how Scottish CWGs' goals and practices may be influenced by the need to generate their own revenue, either by subjecting them to a capital logic for organisational survival or by giving them more autonomy to pursue their most radical (transformative) goals. This could lead to valuable insights on whether and how community-led organisations can potentially become more stable/secure and autonomous without compromising their social and environmental commitments.

In addition to that, more research on how communities acquire autonomy to adapt, contest, or seize control over metabolic processes on their own terms, as well as on how community-led organisations can avoid co-optation and remain truly transformative, could make significant contributions to the existing body of knowledge and to community action. This could yield valuable insights into how community-led organisations can foster system change from the bottom-up.

Finally, more empirical evidence and research that considers potential alternatives to the unhealthy social metabolism shaped by the capitalist mode of production would strengthen the ecosocialist (transformative) theoretical framework and benefit the sustainability transition debate. Therefore, future research should continue to explore how transformative changes come about and develop other practical tools to facilitate empirical research and decision-making towards a transformative vision of sustainability transition.

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Appendix I – Web-based data collected from CWGs

All information presented in this table has been gathered from publicly available resources provided by communities themselves – i.e., communities websites, social media (Facebook page, blogs, YouTube, and Vimeo), downloadable documents (forestry plans, newsletters, CWA documents, and other materials), and details provided by the Scottish Charity Regulator (OSCR) website – https://www.oscr.org.uk/, and the Companies House website – https://find-and-update.company-information.service.gov.uk/. Therefore, the text presented in the table below are of community authorship with small stylistic and grammatical adaptation to the format here adopted, and text synthesis (only where necessary) to avoid repetitive information and allow textual flow. All information has been gathered between April – May 2021.

Please note that the table below excludes CWA members which are not a community, such as councils (i.e., Aberdeenshire council, Balloch Community Council, and The Highland Council), large charitable organizations (i.e., Community Land Scotland, EADHA Enterprises, Paths for All, Green Action Trust, Raasay Development Trust, and Woodland Trust), and other organizations (i.e., Ardroy Outdoor Education Centre, Argyll Green Woodworkers Association Trust, BUSHCRAFT, Coigach & Assynt Living Landscape, Green Aspirations Scotland, Islay Development Initiative Ltd., Muddy Adventures, Stramash Social Enterprise, and Under The Trees Ltd.). Groups based outside Scotland (in England or Wales) have also been excluded from the table (e.g., Hill Holt Wood, Candlefield Community Woodland). Finally, the following groups were excluded since very little, or no information was found about them online: Ardross Community Woodland Group, Brighty Wood Group, Crossgates Community Woodland, Dornoch Woodlands Volunteer Group, Friends of Kennel Wood, Friends of Stonehouse Park, Helmsdale Woodlanders, Isle of Cumbrae Initiative Community Company, Kilmallie Community Company, Latheron, Lybster and Clyth Community Development Company, Lionthorn Community Woodland Association, The Vat Run, Treslaig And Achaphubuil Crofters, Tweeddale Community Woodfuel. Some CWGs that did not appear in CWA's members list were added as they were mentioned in the documents consulted: Gordon Community Woodland Trust.

The complete list of CWA members is available at: https://www.communitywoods.org/our-members

Table's Key:

(*) Characteristics: (line 1) Year of establishment; (line 2) Land ownership; (line 3) Constitutional Form; (line 4) Woodland area; (line 5) Local authority and Location – according to the Scottish Government Urban Rural Classification: https://www.gov.scot/publications/scottish-government-urban-rural-classification-2016/pages/2/

(-) Not applicable or missing information.

Community	Characteristics*	Ends: Aims & Purpose	Means: Activities & Facilities
Abriachan Forest Trust	1998 Community owned (purchased from the Forestry Commission) Company Limited by Guarantee & Registered Scottish Charity 540 ha Highland (Accessible Rural area)	1. To support local and national initiatives which aim to extend native woodlands significantly within Scotland by improving the cultural, educational and recreational aspects of native woodlands and by rebuilding the social relationship between the communities of Scotland and their local woodlands; 2. To create local employment, improve the environment, and encourage its enjoyment by the public.	Silviculture and other forestry activities: Low Impact Silvicultural System (LISS). Firewood production Creation and management of foot and bike paths Forest school Social and Physical activities/events, including vegetables growing and wholesome meals cooking. Pre-primary education and Educational support services.
Aigas Community Forest	2009 Community owned (purchased from the Forestry Commission) Company Limited by Guarantee & Registered Scottish Charity 270 ha Highland (Remote Rural area)	1. To encourage native regeneration of the forest whilst maintaining it as a working asset, increase and improve access to recreational opportunities in the forest, and manage and harvest the timber to produce working capital for re-investment. 2. To manage community land and associated assets for the benefit of the Community and the public in general. 3. To provide, or assist in providing, recreational facilities, and/or organising recreational activities, which will be available to members of the Community and public at large with the object of improving the conditions of life of the Community. 4. To advance community development, including urban or rural regeneration within the Community. 5. To advance the education of the Community about its environment, culture, heritage and/ or history. 6. To advance environmental protection or improvement including preservation, and conservation of the natural environment, the maintenance, improvement or provision of environmental amenities for the Community and/ or the preservation of buildings or sites of architectural, historic or other importance to the Community.	Actively manage the forest to restore biodiversity and protect existing species. Sensitively thinning the woods to create large and small clearings where native hardwoods can seed and flourish, and to allow light and wildlife in. Create habitat for wildlife, including red squirrels, a deer hide; artificial badger setts; pine marten boxes; bat boxes; brash piles for nesting wrens; and a couple of osprey platforms near the river. Creating footpaths for people; a nest box trail; challenging all-ability tracks and activities; interpretation boards (to provide information on the natural and cultural heritage of the area) and establishing an outdoor venue and accompanying programme of artistic and cultural events. Work with Teanassie Primary School, Aigas Field Centre and other organisations to support wide-ranging environmental education for all age groups. Continued production of some commercial timber and other carefully controlled activities and skills development projects so that the forest can pay its way. Add value to our timber before sale by drying and chipping for fuel, develop high-end eco-accommodation to complement existing tourism businesses in the area, and investigate renewable energy opportunities in keeping with our community ethos.
Aird Community Trust (ACT)	2000 Lease from State Forest Land	To increase biodiversity, recreational access and educational activities within the wood while being economically and environmentally sustainable.	Umbrella organisation for several community-led projects.

	Scottish Charitable Incorporated Organisation 15 ha Highland (Very Remote Rural area)	1. The prevention or relief of poverty; 2. The advancement of education; 3. The advancement of health; 4. The advancement of citizenship or community development; 5. The advancement of the arts, heritage, culture or science; 6. The advancement of public participation in sport; 7. The provision of recreational facilities, or the organisation of recreational activities; 8. The advancement of environmental protection or improvement; 9. The relief of those in need.	Work with neighbours to reduce grazing pressure, managing the woodland to remove non-native and removing invasive Rhododendron and Himalayan Balsam. Create deadwood habitat. Improvements and developments to the upper Reeling walks, created a Balance Trail and Wooden xylophone. Small scale projects such as hardwood thinning and charcoal making. Manage through a selection system felling approx. the current annual increment each year. Select towards native woodland. Mill sawlogs on site. Restock by nat. regen.
Aline Community Woodland (Erisort Trust)	2007 Community owned (purchased from the Forestry Commission) Company Limited by Guarantee & Registered Scottish Charity 636 ha Western Isles (Very Remote Rural area)	To relieve poverty, advance education and do all such other things that may benefit the communities of Pairc and Kinloch. 1. The prevention or relief of poverty. 2.The advancement of education. 3.The advancement of citizenship or community development. 4.The advancement of the arts, heritage, culture or science. 5.The advancement of environmental protection or improvement.	Tree planting. Creating, improving, and maintaining paths. Creating and improving a recreation area. Building a shelter with a table for cyclists and walkers passing or visiting Aline Community Woodland to take a short break, eat and drink, enjoy the stunning view over the loch and hills behind it. Installing wildlife posters in the cabin to promote education. Developing a Biomass business and bringing income to help with the installation of a wind turbine.
Alva Glen Heritage Trust	2003 - Company Limited by Guarantee & Registered Scottish Charity 11.55 ha Clackmannanshire (Accessible Small Town)	To bring back and develop the spirit of the community by restoring and regenerating Alva Glen. More specific aims include: 1. Manage and regenerate community land as part of the protection & sustainable development of Scotland's natural environment; 2. Plan and encourage measures that will be of educational, environmental, cultural, social and/or recreational benefit to the community; 3. Research the history of the glen, including its' mill buildings and lades and provide interpretation panels to increase visitors knowledge and enjoyment of this special place; 4. Return Alva Glen back to a pleasant area that can be used by all of the local community & visitors.	Maintaining/restoring paths and other amenities (e.g., picnic tables). Clearing weeds. Litter picking. Organizing volunteering days.
Alyth Hill Users Group	2007 -	To protect and conserve Alyth Hill; to encourage and improve reasonable access for rural leisure pursuits; to	To achieve its aims, AHUG works in partnership with all interested parties.

	Scottish Charitable Incorporated Organisation Alyth was offered the use of a 34 acres site at the south-east of the plantation, adjacent to the town and a smaller 5 acres site adjacent to the Den of Alyth. Perth & Kinross (Accessible Rural area)	encourage the use of the area for educational purposes. All the objectives are to benefit all the residents of Alyth Community Council area, neighbouring communities, and visitors to the area.	
Anagach Woods Trust	2002 Community owned Company Limited by Guarantee & Registered Scottish Charity 382 ha Highland (Remote Rural area)	Aims include: 1. To manage community land and associated assets for the benefit of the Community and the public in general, with a particular emphasis, but not exclusively, on the conservation of Scotland's natural heritage and the conservation, restoration and improvement of woodlands in and around Grantown on Spey; 2. To advance the education of the public generally but particularly the education of young people within the Community concerning the local wildlife, conservation and preservation of the natural and cultural heritage of the area; 3. To provide, or assist in providing, recreational facilities, and/or organising recreational activities, which will be available to members of the Community and public at large with the object of improving the conditions of life of the Community; 4. To promote, establish and operate other schemes of a charitable nature for the benefit of the Community. 5. In line with conservation objectives, to ensure that Anagach Woods provides opportunities for small business development based on the products and activities of Anagach Woods.	Management of the woods and involvement of the community. Protection and enhancement of the capercaillie population in the woods. Developing/improving opportunities for watching wildlife. Containing the spread of exotic species and enhancing the environment for native pinewood flora and fauna (rare plants and animals characteristic of native Scots pine forest). Installing and maintaining high quality infrastructure that meets the needs of locals and visitors, young and old and of all ability. Creating and maintaining to a high standard access routes and other facilities that allow people of all ability to enjoy the woods, that contribute to the value of Grantown as a whole and that balance with the primary objective of conservation. Managing/informing visitors and their pets to minimise disturbance to wildlife and to ensure that all can enjoy the woods when they visit. Providing a range of educational opportunities, ensuring that the current and future generations are inspired by the woods and learn to care for them. Felling and harvest timber only when absolutely necessary to improve habitats for threatened species and for income to sustain the management of the woods and

			then only by following sound silvicultural practice appropriate to "Continuous Cover Forestry". Facilitating the engagement of a wide range of Grantown residents and other stakeholders in the management operations and planning of the woods. Maintaining a positive flow of financial resources from timber and non-timber forest product revenues and from grants and donations that will sustain the management of the woods.
Applecross Community Company	2008 In process of acquisition by the community Company Limited by Guarantee & Registered Scottish Charity 14.28 ha Highland (Very Remote Rural area)	To make Applecross a better place to live, work and visit by managing the community land and associated assets for the benefit of the Community and the public in general. More specific aims include: 1. The advancement of community development; 2. The advancement of environmental protection or improvement; 3. The provision of recreational facilities, or the organisation of recreational activities, with the object of improving the conditions of life for the persons for whom the facilities or activities are primarily intended; 4. The advancement of the arts, heritage, culture or science; 5. The relief of those in need by reason of age, ill-health, disability, financial hardship or other disadvantage; But only to the extent-that the above purposes are consistent with furthering the achievement of sustainable development.	Following acquisition of the woodland, ACC plans to clear-fell the majority of the plantation and re-stock the area with a more diverse range of native woodland species, given the age and maturity of the Sitka Spruce.
Ardentinny Community Trust	2003 - Company Limited by Guarantee & Registered Scottish Charity - Argyll & Bute (Very Remote Rural area)	1. To provide, in the interests of social welfare, facilities for recreation and other leisure time activity available to the public at large within the village of Ardentinny and the surrounding landward area with a view to improving their conditions of life; 2. To preserve, restore and improve the environment in the operating Area through the provision , maintenance and or improvement of public open space and other public amenities and other environmental and townscape regeneration projects, and in doing so, to seek wherever appropriate (but subject to appropriate safeguards to ensure that the public benefit so arising	-

		clearly outweighs any private benefit thereby conferred on private landowners) to carry out works of reclamation, remediation, restoration, and other operations to facilitate the use for those purposes of land whose use has been prevented or restricted because of previous use. 3. To promote for public benefit the preservation (whether wholly or in part) of buildings and other structures of historic and/or architectural significance located within the Operating Area; 4. To provide or assist in the provision of housing for people in necessitous circumstances within the Operating Area; 5. To advance education and to promote training programmes and' opportunities for the benefit of the residents of the Operating Area particularly among young -people and the unemployed; 6. To relieve poverty among the residents of the Operating Area; 7. To promote, establish and operate other schemes of a charitable nature for the benefit of the community within the Operating Area.	
Ardrishaig Community Trust	2008 - Company Limited by Guarantee & Registered Scottish Charity - Argyll & Bute (Very Remote Rural area)	1. To advance the development and regeneration of Ardrishaig for the benefit of the community and the public in general follwoing prinicples of sustainable development; 2. To manage community land and community assets for the benefit of the Community and the public in general following principles of sustainable development; 3. To provide, or assist in providing, recreational facilities and/or organising recreational activities, which will be available to memebers of the public at large with the object of improving the conditions of life of the Community following principles of sustainable development; 4. To advance the education of the Community about its environment, culture, heritage and/or history; 5. To advance environmental protection or improvement including preservation and conservation	Improvements to North Hall and Public Hall.

		of the natural environment, the promotion of sustainable development, the maintenance, improvement or provision of environmental amenities for the community, and/or the preservation of buildings or sites of architectural, historic or other importance to the community.	
Argyll and the Isles Coast and Countryside Trust	2014 - Scottish Charitable Incorporated Organisation - Argyll & Bute (Very Remote Rural areas)	To sustainably maintain, enhance and promote the coast and countryside of Argyll and the Isles, ensuring that they remain a desirable place to live, work and visit, and that communities feel a sense of ownership, empowerment, and responsibility to help keep it that way for future generations. More specific aims include: 1. To advance environmental protection and/or improvement, in particular through the maintenance, management, promotion and enhancement of the natural environment (including landscape, wildlife and the marine environment, and including measures to promote biodiversity) in countryside and coastal areas within the Community, and through encouraging investment in the Community's natural capital; 2. To advance education, primarily within the Community; 3. To provide recreational facilities with the aim of encouraging public participation in outdoor leisure activities within countryside and coastal areas within the Community and improving the conditions of life for the persons for whom the facilities or activities are primarily intended, particularly within the Community; 4. To advance heritage, and in particular to promote the conservation of buildings and other features of architectural and/or historical interest within the Community; 5. To relieve unemployment and promote volunteering within the Community, and in particular through projects and initiatives connected with the delivery of the objectives set out above which provide opportunities for volunteer support, training and/or work experience; 6. To promote the voluntary sector within the Community, and particularly through the delivery of advice and support to, and/or joint working with, organisations which are	Umbrella organisation for several community-led projects. ACT's main role is as a facilitator – helping things to happen that wouldn't otherwise progress. Activities are primarily project based covering a range of topics. Working strategically and locally to improve and conserve a number of species and habitats. Tackling invasive non-native species and restore native habitats. Encourage local people to participate in biodiversity and conservation activities and work with partners to educate and raise awareness about habitats, species, and geology. Helping communities to boost tourism and generate income in their local area. Encouraging, facilitating and promoting informed and responsible public access to countryside and coastal areas within the Community (and including the provision of interpretive centres, signage and other methods of conveying information). Increasing the level of knowledge and understanding of environmental issues (including principles of best practice) among local communities and public, private and third sector bodies. Conducting, arranging and/or participating in research projects within the environmental field where the results of such research are to be made available to the public.

		pursuing aims similar to one or more of the objectives set out above.	
Argyll Small Woods Cooperative	2014 Small woodland owners - - Argyll & Bute (Very Remote Rural areas)	To coordinate woodland management activity in harvesting, planting, selling and wood fuel; To advise on woodland/forest plans; To encourage collaboration on advice, information, equipment and manpower; To organise and run knowledge sharing events for woodland owners and workers; To organise and run practical woodland/forestry skills courses.	The Cooperative for small woodland owners and workers in Argyll, providing practical advice, training and collaborative woodland management opportunities.
Arkaig Community Forest	2014 Owned by the Woodland Trust Scotland. Scottish Charitable Incorporated Organisation 1086 ha Highland (Very Remote Rural areas)	To restore native woodland habitats and to re-connect local people with the management and stewardship of the site and to use the woodlands to underpin sustainable rural development in the community of Achnacarry, Bunarkaig and Clunes. More specific aims include: 1. To support and promote sustainable community development, where 'sustainable development' means development which meets the needs of the present without compromising the ability of future generations to meet their own needs; 2. To manage community land and associated assets for the benefit of the community and the public in general; 3. To restore and protect the natural environment of the area, and in particular to restore and enhance the native woodland habitats and other semi-natural habitats and associated flora and fauna of the area; 4. To support and enhance the understanding and interpretation of the environment, history, culture and heritage of the area; 5. To improve the access, amenity and recreational value of the area; 6. To encourage the advancement of land-based education, training, and personal development; 7. To promote health and wellbeing.	Managing the woodland in partnership with Woodland Trust Scotland. Managing Clunes Forest School and the surrounding woodland and forest garden at Tom an Eirreanaich (around 6 ha) under a management agreement with Forestry and Land Scotland. Promoting public engagement/education through a live osprey nest cam.
Assynt Foundation	2005 Community owned (purchased from private landowner)	1. To manage community land and associated assets for the benefit of the community and the public in general as an important part of the protection and sustainable development of Scotland's natural environment, where	Sustained deer culls have allowed the natural regeneration of native trees around pockets of existing woods throughout the 44,000 acres of Glencanisp and Drumrunie. There were existing planted woods when

	Company Limited by Guarantee & Registered Scottish Charity 18,000 ha Highland (Very Remote Rural areas)	sustainable development means development which meets the needs of the present without compromising the ability of future generations to meet their own needs. 2. To advance the education of the community about its environment, culture and/or history.	the estates were purchased. These were at Drumrunie corner, An Coimhleum and Wester Tubeg on the south side of Loch Assynt and at Bad na h- Achlaise. Since the purchase, we have planted woods at Druim Suardlain and at Ledbeg. We are now concentrating on joining up the fragments on the Southside of Loch Assynt. It is hoped that a combination of planted woods, natural regeneration and an increased deer cull will increase the woodland cover benefit all wildlife on the estates.
Aultnaskiach Dell	2012 Community owned Scottish Charitable Incorporated Organisation 2 ha Highland (Other Urban area)	1. To advance the enviromental protection and improvement of Aultnaskiach Dell by the conservation, management, protection and sustainable enhancement of the natural habitat and the plant and animal species therein; 2. To advance the education of the community about the history, management and habitat of the Dell and to enable use of the Dell by schools and other organisations for educational purposes; 3. To advance citizenship and community development by encouraging voluntary activity in, and promoting civic responsibility for, the conservation, management, and enhancement of Aultnaskiach Dell.	Working with local schools. Controlling of invasive species and clearing space for new planting and natural regeneration.
Beechbrae	2014 - Scottish Charitable Incorporated Organisation 15.17 ha West Lothian (Other Urban area)	1. To provide educational activities for people of all ages and abilities to equip them with skills in developing, managing, and enhancing green space and woodlands and in community growing; 2. To advance community development by encouraging the local community to take part in the green space, woodland and community growing activities of Beechbrae with the aim of improving the quality of life for the whole community; 3. To provide recreational facilities, or the organisation of recreational activities available to the local community and to members of the public at large with a view to improving their conditions in life, including (without prejudice to that generality) promoting and improving access to woodland, and through providing, developing and improving the facilities which support	Beechbrae offers tailored woodland wellbeing sessions that focus on improving mental and physical health and raising awareness on important environmental issues and sustainability. Beechbrae holds an orchard, community garden, mixed woodland with walking paths, and a wild pond. These places help to connect people with nature as a way of addressing a variety of challenges.

		access to woodland and greenspace, biodiversity and wildlife; 4. To advance environmental protection or improvement by helping protect, enhance & restore the biodiversity of Blackridge & West Lothian and promoting the sustainable use of natural resources; 5. To advance health by supporting, developing and improving physical, mental and emotional health through indoor and outdoor programmes.	
Borders Forest Trust	1996 Six woodland properties owned by Borders community which manage them partnership with the communities. Registered Scottish Charity Lindean and Bailhill Wood (19 acres), Ettrick Willows (16 acres), Drygrange Community Woodland (23 acres), Carrifran Wildwood (1500 acres), Corehead Farm and the Devil's Beeftub (1580 acres) and the Talla & Gameshope (4527 acres). Scottish Borders (Very Remote Small Towns)	1. To conserve, regenerate and promote the restoration of native woodlands in the geographical region of the Borders as an important part of Scotland's natural environment for the benefit of the public; 2. To encourage an interest in woodland culture with those in the local community. Their vision for the South of Scotland is for a place where a rich tapestry of native woodlands and wild places flourish, cared for by local communities.	Farm animal boarding and care. Silviculture and other forestry activities. Other service activities not elsewhere classified. Connecting people and places. Planting trees (having planted over 1.5 million native trees in the Borders and Dumfriesshire since 1996). The Wildwood project seeks to re-create a valley of wooded wilderness in the Southern Uplands with the rich diversity of native species that existed there thousands of years ago before human activities became dominant. Running woodland activities for those living with dementia and facilitating walking groups for local communities and volunteering groups with particular health aims. Activities include a mix of conservation work, bushcraft, art, and physical challenges such as tai chi. Teaching children and young people to value wild places, and giving them the confidence to be outside safely, is wonderful for children and vital to ensuring land is cared for into the future. Borders Forest Trust has a long history of this work, from bringing Forest Schools to the Borders to greening school grounds to family fun days at local Community Woodlands. With support from Scottish Natural Heritage they have developed an innovative programme of outdoor learning for young people at Corehead Farm and the

			Devil's Beeftub, including: Junior Rangers, Adventure Club, Formal Education.
Braemar Community Ltd.	2004 - Company Limited by Guarantee & Registered Scottish Charity - Aberdeenshire (Very Remote Rural)	1. To relieve poverty among the residents within Braemar; 2. To manage community land and associated assets for the benefit of the people of Braemar and the public in general following principles of sustainable development, where sustainable development means development which meets the needs of the present without compromising the ability of future generations to meet their own needs, by inter alia pursuing opportunities for economic growth through sensitive development of the natural environment; 3. To advance environmental protection or improvement including preservation, and conservation of the natural environment, the promotion of sustainable development, the maintenance, improvement or provision of environmental amenities for the community and/or the preservation of buildings or sites of architectural, historic or other importance to the community, by inter alia exploring and developing district heating, waste management and other environmental opportunities; 4. To advance community development, including urban or rural regeneration, following principles of sustainable development. 5. To provide, or assist in providing, recreational facilities, and/or organising recreational activities, which will be available to members of the public at large with the object of improving the conditions of life of the people of Braemar and following principles of sustainable development 6. To advance education of the natural and built environment amongst the inhabitants of Braemar; 7. To promote the protection of the environment and conservation of fauna.	Restoration of the Queen Mother's cruck framed cottage with hingin' lum at Auchtavan. Construction of footpaths and bridges to extend pedestrian access routes. The community garden, play park and nature trail. St Margaret's Performance Arts and Heritage Centre Staging the Braemar Mountain Festival. Initial feasibility study for the 100kW Corriemulzie hydro scheme, now operated by Braemar Community Hydro Ltd and generating income. The main focus of our current work is the management and development of Braemar Castle and the provision of affordable housing.
Braes Greenspace -	2020 -	The organisation's main purpose is consistent with furthering the achievement of sustainable development.	-

Shieldhill Hillcrest	Scottish Charitable Incorporated Organisation - Falkirk (Accessible Rural area)	The organisation's purposes are: 1. The provision of recreational facilities and the organisation of recreational activities, with the object of improving the conditions of life for the persons for whom the facilities or activities are primarily intended. 2. The advancement of citizenship and community development including rural or urban regeneration and the promotion of civic responsibility, volunteering and the voluntary sector.	
Broadford and Strath Community Company	2001 Community owned (purchased from the Forestry Commission) Company Limited by Guarantee & Registered Scottish Charity 23 ha Highland (Very Remote Rural area)	To meet the needs of visitors to Broadford & Strath whilst creating jobs and generating a sustainable source of income for the Community. More specific aims include: 1. To advance education and to relieve poverty among the residents of the Area of Benefit and to promote community development through the maintenance or improvement of the physical, social and economic infrastructure for the benefit of the general public in the Area of Benefit by the provision of facilities for residents of to the Area of Benefit including facilities for meetings, lectures, classes and entertainments and for other forms of education, recreation and leisure time occupation; 2. To provide facilities for the young and elderly, including without prejudice to that generality, facilities for mothers and toddler groups, playgroups, out of school care groups, youth groups, young adults, senior citizens, the elderly, and those who have special needs including without prejudice to the foregoing generality, facilities for the mentally and physically handicapped, athletes and sportspersons; 3. To provide training, education, meetings, lectures, seminars and talks and the promotion and publication of leaflets, pamphlets, books and articles whether concerned with the Area of Benefit or elsewhere; 4. To bring together in furtherance of the objects of the Company of any organisations whether incorporated or unincorporated, statutory or non-statutory bodies and individuals; 5. The promotion for the benefit of the public of the environment and its enhancement and the research, collation, recording,	Initial ideas for the community woodland included: Woodland regeneration, removal of invasive and non-native vegetation, regenerating native, mixed woodland. Network of paths, nature trails and mountain bike tracks Community-run campsite A picnic area and recreational space Events space Visitor Centre including a shop, gallery and café Visitor parking for up to 200 cars Youth Adventure Site A community orchard and allotments These in turn would have the following benefits to the Community: A safe, managed recreational space for people of all ages to enjoy Sustainable sources of income for the communities of Broadford and South Skye Economic benefits to local businesses A space for native plants and wildlife to thrive, enhancing local biodiversity Land for the use of future generationss.

		publication by any means, dissemination and promotion of the history of the Area of Benefit.	
Bute Community Land Company	2010 Community owned (purchased from private landowner) Company Limited by Guarantee & Registered Scottish Charity 1,700 acres (Rhubodach plantation and Oak Woodland) Argyll & Bute (Very Remote Rural area)	To create new jobs and better recreational facilities for local people and to attract new visitors to the island. More specific aims include: 1. To manage community land and associated assets for the benefit of the Community and the public in general; 2. To provide, or assist in providing, recreational facilities, and/or organising recreational activities, which will be available to members of the Community and public at large with the object of improving the conditions of life of the Community; 3. To advance the education of the Community about its environment, culture, heritage and/or history; 4. To advance environmental protection or improvement including preservation, and conservation of the natural environment, the maintenance, improvement or provision of environmental amenities for the Community and/or the preservation of buildings or sites of architectural, historic or other importance to the Community.	Deer management. Removal of invasive species (notably Rhododendron). Creation and management of foot and bike paths, including a Poetry Trail. Ongoing maintenance of Kayak Shelter. Phased feeling of Spruce & Larch. Replanting with native species. Larch affected by larch disease is close to, but not in, the Community Forest. To stop the spread of the disease, immediate plan to fell the larch and reinvest profits in Forest Plan and replanting. Promoting community access and events, including heritage events, annual Christmas Treasure Hunt, school activities and mental health promotion activities. Facilities include temporary shelters, composting toilet, barbeque and firepit, picnic tables, viewing bench, parking and turning area.
Cairnhill Woods Group	2008 - Member of the charity "The Conservation Volunteers" - East Dunbartonshire (Large Urban area)	Cairnhill Woods Group works with East Dunbartonshire Council to improve the woods and other local green spaces for present and future generations. Cairnhill Woods is officially designated a Local Nature Conservation Site (LNCS).	Carrying out clean ups. Removal of invasive species (notably Rhododendron). Helping to improve the woods for people and native wildlife, including tree and shrub planting, new ponds creation, and paths improvements. Occasionally running events and activities aimed at people of all ages and abilities, including action days (volunteering), birdwatching, wildlife recording (such as birds, butterflies, and other animals), and Green Fitness First Sundays.
Cambusbarron Community Development Trust	2010 Community owned (purchased from private landowner) Scottish Charitable Incorporated Organisation	To provide a woodland for all by engaging with the local community and visitors to improve the woodland to meet their needs. More specific aims include: 1. To advance environmental protection or improvement including preservation, sustainable development and conservation	Identifying needs by consulting and listening to the users and residents, and devising strategies, plans and facilities to enable as wide usage as possible. Imposing rules (where necessary) with the aim of protecting the woodland and its users from distress or damage. Facilitating voluntary involvement.

	64 ha (Polmaise Wood at Gillies Hill) Stirling (Other Urban area)	of the natural environment, the maintenance, improvement or provision of environmental amenities for the Community and/or the preservation of buildings or sites of architectural, historic or other importance to the Community; 2. To provide or assist in providing facilities for recreation and other leisure time activity, which will be available to members of the Community and public at large with the object of improving the conditions of life of the Community; 3. To advance the education of the Community about its environment, culture, heritage and/or history; 4. To manage community land and facilities for the benefit of the Community and the public in general; 5. To advance community development within the Community.	Creation and management of foot and bike paths that meet the needs of all the community and users of the wood (includes all ability access, opportunity to explore, 'wildness', mountain biking, works access etc.). Managing the woodland to create a safe, vibrant, and productive environment for users and wildlife – by: Promoting indigenous wildlife; Progressively re-planting with predominantly native species; Appropriately managing dangerous trees and invasive species; Providing income for the Trust to reinvest back into the community. Developing the castle ruins and immediate grounds so that they are safe and more accessible for visitors, as well as recording and communicating details of the history, heritage, and environment of this land. Bringing the walled garden and its immediate surrounds back into use as a community growing space for trees, plants, fruit and vegetables, to enhance the health and welfare of the local community and beyond. Also creating a working area to facilitate forestry activity across the woodland. Enabling the Cambusbarron Village Nursery to develop a facility in the woodland to meet the needs as an Early Learning and Childcare provider which specialises in outdoor play and learning. Developing resources for education and reaching out to local education providers and community groups to set up sessions and workshops for learning to meet their needs.
Carsphairn Community Woodland Ltd.	2013 Community owned (purchased from the Forestry Commission) Company Limited by Guarantee & Registered Scottish Charity 48.7 ha (Muirdrochwood Forest)		Initial planned activities include: a Community Hub for workshops and community events; provision of wood fuel and wood products, and creation of paths around the site, all set in a woodland landscape to be redesigned with more native woodland and open spaces amongst productive forest, all for community benefit.

	Dumfries & Galloway (Remote Rural area)		
Cassiltoun Trust	2000 - Company Limited by Guarantee & Registered Scottish Charity - Glasgow City (Large Urban area)	To advance the education of the public concerning the history and role of Castlemilk and to conserve and preserve for the benefit of the public buildings of an historical and/or architectural significance.	Restoration and development of Castlemilk Stables, creating a sustainable community asset and delivering multiple projects that benefit the wider Castlemilk Community. Facilities include: Housing Association offices; three small offices and training Suites with shared kitchen and toilet facilities; childcare provision; Walled garden and meadow area - open spaces that offer safe and secure environments for local people and community organisations to develop new skills and also to relax in; and Courtyard - a communal area that offers opportunities to host community events and activities.
Children's Wood and North Kelvin Meadow	2015 Lease from Glasgow City Council Scottish Charitable Incorporated Organisation 1.4 ha Glasgow City (Large Urban area)	To advance educational opportunities, provide recreational facility, organise recreational activities, promote citizenship or community development, and arts, heritage, culture or science by community projects and events.	Providing outdoor learning for children and their carers. Organising public and schools' events/visits. Working with schools and other organisations to educate about the benefits of learning and playing outside in nature. Working with local, young people and their families to support and encourage young people's personal and professional development. Preserving a woodland experience in the city by maintaining and protecting the local environment. Creating opportunities for children and the community to play outside in nature and meet each other by organising playgroups and events. Developing space for participants to explore in a safe and secure outdoor environment for the benefit of the community and its cohesion. Training teachers, young people, and volunteers. Working with the local community around North Kelvin Meadow in the nearby wards within City of Glasgow. Creating intergenerational opportunities and engaging with harder to reach groups through events and linking up with other groups within the community. Providing activities or services which aim to relieve the impact of poverty and income inequality on people living in the operating area, including food related activities.

			Providing educational resources (annual activities pack) and public guidelines for using and looking after the land/space. Providing an open to the public for general enjoyment, including holding birthday parties, barbecues, and picnics (no booking needed). Volunteering activities, including Community Garden: growing flowers, plants, trees, fruits and vegetables, supporting biodiversity and contributing to the maintenance of the land/space. Through support and training allow young people to grow, develop, seek employment and take ownership over their lives and within their community. The advancement of arts, heritage, culture or science, through community projects and events. Facilities: Community Centre/Café, solar energy, bike shed, paths, orchard, garden, picnic/BBQ area, fire pit, performance area, treehouse and other structures.
Community-led Environmental Action for Regeneration (CLEAR)	2012 - Scottish Charitable Incorporated Organisation - Fife (Large Urban area)	To advance citizenship and community development (including urban regeneration) and to advance environmental improvement by: 1. Improving the local environment and public spaces around Buckhaven and Levenmouth 2. Improving the quality of life for the community 3. Encouraging local residents to take pride in and become actively engaged in their area; 4. Combatting the worsening food insecurity in the area.	Running a community fridge which is open 2 days a week – people in need can register and have once weekly access to up to 5 items from the fridge plus whatever bakery items, fresh fruit and vegetables and other items that are available. Goods are supplied weekly from Fareshare and surplus food from supermarkets plus fruit and vegetables from their own gardens. Hot meals are provided for up to 20 volunteers daily. Organising community activities and workshops, such as litter picking, recycling wooden pallets to create outdoor furniture, bike recycling and repairs, mosaics, murals, grafting and pruning, kids' crafts, flower arranging, healthy eating, wine and cordial making, clay painting, lip balms, garden machine maintenance, beehive and wormery manufacture, talks on trees, history/heritage trails, panels and talks, community mapping, herbs, nature walks, Chinese crafts, and community consultation. Improving paths and landscape by developing path signs, waymarkers, walks leaflets, interpretation panels and display boards.

			Running two community gardens, selling fresh locally produced fruits and vegetables, as well as producing a range of juice, jams, and pickle. Planting and maintaining community woodlands, orchards and wildflower areas around and outside town to promote biodiversity and linking corridors, and encourage local residents to visit, interact and appreciate their natural surroundings. CLEAR has planted over 15,000 native trees and around 7,000 fruit trees in the public greenspace on sites accessible to all. Furthermore, with a nursery, heritage orchard and allotments, their multi-purpose central space serves as training-learning centre and hub for outreach growing projects (woodland, floral) around the town and surrounding countryside. Their outreach work develops or expands small community orchards, woodlands, floral enhancement of public parks, play parks and paths. It is also home to a regular range of growing and food events, drawing in local residents and groups to participate in learning, skills development and take action and pride in Buckhaven.
Coigach & Assynt Living Landscape	The Partnership comprises community land-owners, community interest groups, charitable land-owners, private land-owners and charitable membership organisations. Coigach & Assynt Living Landscape is an unincorporated organisation whose lead partner is the Scottish Wildlife Trust. The Scottish Wildlife Trust	The Coigach & Assynt Living Landscape Partnership Scheme (CALLP) is a five-year National Lottery Heritage Funded project comprising 14 Partner organisations, of which the Scottish Wildlife Trust is the lead partner. Collectively, these Partners are committed to delivering a Scheme comprising over 30 individual projects between September 2016-2021. Collective projects' aims relate to: Heritage is: better managed; in better condition; and identified/recorded. People have: developed skills; learnt about heritage; and volunteered time.	List of projects by type PATHS AND ACCESS: Coigach & Assynt Heritage Signage Project; Landscape Routes App; Glencanisp Wildlife Hide; Glencanisp Nature Trail; Culag Woods and Little Assynt Paths; Quinag Summit Paths; Polbain Coastal Paths; Acheninver Coastal Path; Postie's Path; and Suilven Path. LAND AND CONSERVATION MANAGEMENT: Soil Fertility Research; High Value Open Habitats Survey; Freshwater Lochan Survey; Hazel Wood Audit; and Woodland Expansion. PEOPLE TRAINING AND WILDLIFE: Community Grants Scheme; Natural Heritage Data Project; Marine Project; Sustainable Deer Management; Crofting

	is a Scottish registered charity and a company limited by guarantee. One of the larger landscape-scale restoration projects in Europe, covering 635 square kilometres. Rural area	Communities: have reduced environmental impacts; are more engaged with heritage; and the area will be a better place to work, live and visit.	Project; Woodland Artisan Courses; and Outdoor and Woodland Learning. BUILT AND CULTURAL HERITAGE: Music & Tales of Coigach & Assynt; Artist in Residence; Achlochan Coastal Heritage; Clachtoll Broch; Isle Martin Croft House; Badentarbet Net Shed; and Salmon Fishing Bothy.
Colinton Amenity Association	1927 - Scottish Charitable Incorporated Organisation - City of Edinburgh (Large Urban area)	To preserve and enhance the amenity of Colinton district insofar as the natural development of the City of Edinburgh permits.	
Colintraive and Glendaruel Development Trust	2008 Community owned (purchased from the Forestry Commission) Company Limited by Guarantee & Registered Scottish Charity 1500 acre (Stronafian Forest) Argyll & Bute (Very Remote Rural area)	To deliver economic, environmental and social benefits to the area. More specific aims include: 1. To provide within Colintraive and Glendaruel recreational facilities, or organise recreational, activities, with the object of improving the conditions of life for the persons for whom the facilities or activities are primarily intended; 2. To advance environmental protection and improvement in Colintraive and Glendaruel through the provision, maintenance and/or improvement of public open space and other public amenities and other environmental and regeneration projects (but subject to appropriate safeguards to ensure that the public benefits so arising clearly outweigh any private benefit thereby conferred on private landowners); 3. To provide or assist in the provision of housing for people in necessitous circumstances within Colintraive and Glendaruel; 4. To help young people, particularly those resident in the Colintraive and Glendaruel, to develop their physical, mental and spiritual capacities, such that they may grow to full maturity as individuals and as members of society; 5. To promote, establish, operate and/or support other similar schemes and projects of a	Whilst the majority of the woodland is currently leased to Stakis Forestry LLP for commercial operations, the community tself directly manages around 200 acres, including several sites of historical interest. Approximately 110 ha of the forest with the highest conservation, amenity, and recreation value is managed by CGDT. This is mainly comprises the broadleaf woodland and open spaces. The remaining 510 ha of Stronafian Forest is leased out to a commercial operator on a 99-year term. Community food-growing project. Upgrading and improving paths, including a 57 miles long footpath. Improving the ferry slipway, parking and access to the old slipway. Working to establish Clachan Community Hub. Creating a welcoming feel to both Colintraive, particularly around the ferry area and to Glendaruel, and around the Clachan and access to the Kilmodan Stones. Running a Mini Hydro Scheme to help generate income to support development projects.

		charitable nature for the benefit of the community within Colintraive and Glendaruel.	Improving access along the riverside, including interpretation. Regeneration of the Col-Glen community. Strategic planning and development through community consultation. Partnership working with public sector and other organisations. Capacity building and skills development.
Comrie Development Trust	2005 Community owned (purchased from the Ministry of Defence) Company Limited by Guarantee & Registered Scottish Charity 90 acres (Cultybraggan Army Camp) Perth & Kinross (Remote Rural area)	To enable and assist individuals and groups in Comrie to make their dreams come true in Sports and Entertainment, Rural Arts and Crafts, Business Marketing and Manufacture and to make the purchased land resources of the village available, accessible and useable to this end. More specific aims include: 1. To manage community land and associated assets for the benefit of the Community and the public in general as an important part of the protection and sustainable development of Scotland's natural environment, where 'sustainable development' means development which meets the needs of the present without compromising the ability of future generations to meet their own needs; 2. To provide in the interests of social welfare, facilities within the Community for recreation and other leisure time occupation available to the public at large; 3. To advance education and in particular to promote opportunities for learning for the benefit of the general public; 4. To advance education through promotion of the arts; 5. To preserve, restore and improve the environment in through the provision, maintenance and/or improvement of public open space and other public amenities and other environmental and regeneration projects (but subject to appropriate safeguards to ensure that the public benefits so arising clearly outweigh any private benefit thereby conferred on private landowners); 6. To provide or assist in the provision of housing for people in necessitous circumstances within the Community; 7. To relieve poverty particularly among the residents of the	Activities are divided among six working groups: Comrie Heritage Group: cares for the heritage of the community by further raising awareness and understanding of the historic heritage of Cultybraggan Camp and the village of Comrie; and by seeking to conserve, enhance, promote and share that heritage. It also works to attract more visitors to the area for heritage reasons by developing, collecting, and displaying physical interpretation/exhibition materials within and outside building; and by utilising and expanding the use of the heritage trail, signage, visitor orientation/information and interpretation materials. Finally, they curate and maintain the historic character of the Camp, record interviews with local residents to capture oral history, and plan/promote a series of events about local heritage. Heritage Repair: promotes historical restoration while developing volunteers' knowledge and skills. Comrie Community Orchard: planted an edible hedge, purchased picnic tables, tools, installed a deer grid at the entrance of Cultybraggan Camp, a hen enclosure and for a Shepherd's Hut with a wood burning stove to be situated in the Orchard itself. This group manages the Orchard for the benefit of the community, holding courses and events, including community harvesting of many fruits and berries, and Apple Days for juice/cider production to generate an income. The group has also been growing willow for willow weaving, living

		community; 8. To promote training, particularly among residents of the community and with particular reference to skills which will assist the participants in obtaining paid employment; 9. To encourage, stimulate and support volunteering principally in the Community; 10. To preserve, for the benefit of the general public, the historical, architectural and constructional heritage that may exist in and around the Community in buildings (including any structure or any part of a building so defined) of particular beauty or historical, architectural or constructional interest. Their principles are: Work closely with local people, groups, and businesses; Capture and build community passion, enthusiasm, ideas and skills; Promote quality in everything that they do; Keep their money local; Ensure every aspect of their work is financially and environmentally sustainable; Keep an eye on the future whilst learning from the past. On their webpage, they state that 'When communities purchase the land on which their people live and work, they are freed to reinvigorate their areas and improve the prospects of future generations'.	structures and potentially for the biomass heat network at the Camp. Sports & Recreation Working Group: works to reinstate the sports pitches to allow local sports clubs to come together as a collective "Community Sports Hub". As part of a "hub", which is much more than Cultybraggan sports facilities, each sports club can apply for funding either as a group or as an individual club and will have the opportunity to apply for funding for training in areas such as coaching and First Aid etc. Planning permission has been granted for phase one of the sports project which consists of the development of two grass sports pitches, a nissen hut for indoor sports, siting of two temporary buildings for changing facilities, formation of a curling pad and installation of portable flood lighting. Renewables & Resources: looks after the community's solar, hydropower and woodfuel facilities and provision. The Legacy Committee: is an independent working group directly elected by Comrie Village.
Cormonachan Community Woodlands Ltd.	1998 Lease from State Forest Land Company Limited by Guarantee & Registered Scottish Charity 63.9 ha Argyll & Bute (Very Remote Rural area)	To manage the woodlands to improve their bio-diversity and also to develop them as an education resource. More specific aims include: 1. To conserve the natural heritage of the Cormonachan Woodlands, their flora and fauna; 2. To manage the woodlands in a sustainable manner and to promote biodiversity; 3. To provide access, information and facilities for visitors to the woodlands; 4. To promote the woodlands as an educational, recreational, and health resource; 5. To encourage voluntary participation in the work of conservation and maintenance.	This is a joint community woodlands project with co-operation between Ardroy Outdoor Education Centre, Lochgoil Community Development Trust, Lochgoil Primary School and Forestry Enterprise Scotland. Their interest lie in Conservation, Education and Recreation of/in the ancient Atlantic oak & hazel woodlands – which are part of Scotland's Rainforest and have the status of being 'Ancient Semi Natural Woodlands' (ASNW), with oaks of 300 years old or more and with areas of old coppiced hazel probably from around 100 years ago. Over the last decade the woodlands area has been transformed with 2.5 km of long walking paths established for recreation with view points over Loch

			Goil, a red squirrel trail was provided with information points, a resource centre was also built for educational purposes and many volunteers have cleared much of the area of old tree debris, Sitka spruce and rhododendrons. Since 2018, there is now a Red Squirrel Hide and Contemplation Shelter alongside the Squirrel Trail that are open all year round. Much of the area of Cormonachan Community Woodlands had been under planted with Sitka Spruce by Forest Enterprise in the past. Many of those areas were felled in the late nineties and later in 2006 and will continue to be in the future. New planting of oaks, rowan, hazel and Scots pine has taken place. Rhododendron ponticum and bracken (invasive species) have increased in quantity especially in the northern felled section of the woodlands, however a programme of clearance is reducing much of this now with much still to be done. Bluebells abound throughout the woodlands along with other woodland plants including; primroses, wild garlic, wood sorrel, lesser celandine, honeysuckle and ferns. The most important wildlife to reside in these woodlands are red squirrels and pine martens that are high on the agenda for protection.
Countesswells to Cults Active Woodland Group	1996 - Company Limited by Guarantee 20 square kilometres Cowdenbeath (Other Urban area)	To encourage the local community to use and enjoy the woodlands, whilst doing as much as they can to improve the biodiversity of these varied woods.	Works with landowners, Forestry and Land Scotland (FLS), and Aberdeen City Council (ACC) to make the most of the natural woodland asset on their doorstep. Works with volunteers, providing them with hot tea and coffee and home baked goodies. Promotes community Activities and Events, including Fungus Foray, Birch Thinning, and Nest Boxes. Records and maintains a database of biodiversity information and makes these data available to partners, decision makers, education and conservation bodies and

			the wider community (holds over 1.5 million individual species records). Control invasive species. Involves the community through volunteering opportunities, promoting wildlife gardening, and environmental education and citizen science activities/materials.
Culag Community Woodland Trust Ltd.	1995 Community owned (purchased from Highland Council) Company Limited by Guarantee & Registered Scottish Charity 1,200 ha Highland (Very Remote Rural area)	1. To manage and preserve community woodlands in accordance with good woodland management practice; 2. To conserve and protect this aspect of the natural environment of the Area; 3. To advance education concerning the natural environment of the Area; 4. To relieve poverty in the local community through the promotion of appropriate trades and industries (e.g. timber production).	Creating/improving/maintaining paths, including an All Abilities Path suitable for wheelchair users. Running a Tree Nursery. Sustainably managing Deer in co-operation with neighbouring Estates. Promoting volunteering activities. Encouraging education about the area's natural environment. Installing and looking after facilities, including benches and composting toilets. Promoting community activities and events, including beach cleaning, Dark Sky Discovery, and Survival Skills Training Event. Promoting heritage conservation activities, including Gaelic alphabet learning, and turfing of the historic shelter roof.
Culduthel Woods Group	2018 Technically ownerless (QLTR disclaimed the land) Scottish Charitable Incorporated Organisation 6 ha Highland (Other Urban area)	To protect and improve the woods, to promote education and to encourage community involvement.	Felling and high-pruning of about 50 dangerous trees started to keep the woods safe for everyone to use (following a commissioned tree survey to identify any hazardous trees). Held a community consultation exercise to gauge public support for their work. Currently developing their first Management Plan for the woods. Plans ahead include: Moving towards claiming ownership of the land; and Starting a volunteer programme of small scale projects..
Dalgety Bay Community Woodlands Group	2012 - Unincorporated association	To provide public benefit in Dalgety Bay and Fife and to advance environmental protection or improvement, citizenship and community development and in particular to:	Protection, maintenance and improvement of Bathing House, Hopeward and Crow Woods and other public woodlands in or around Dalgety Bay.

	Bathinghouse Wood (0.62 ha); Hopeward Wood (1.2 ha); Crow Wood (0.35 ha); and Downing Point. Fife (Other Urban area)	1. Make improvements to the built, social and ecological environment of Dalgety Bay with an emphasis on its woodland resources by protecting and managing Bathing House, Hopeward and Crow Woods on behalf of Dalgety Bay and Hillend Community Council ("the Community Council") 2. To raise the awareness and use of all of the woodlands in Dalgety Bay by the local community.	Ensure and maintain the safety of the public/users and volunteers or other personnel carrying out repair, maintenance, renewal or improvement works or operations, including without prejudice to the foregoing generality to arrange any required risk assessments and inspection programmes. Appointing an appropriate and suitably qualified third party to undertake inspections of the woodlands at appropriate intervals and to maintain appropriate records with regard to the safety of the woodlands (including the safety of the public). Liaising with the neighbouring proprietors adjacent to any of the woodlands managed by DBCWG and in particular not to do anything which causes damage or injury to any property or land adjacent to the woodlands or any person located thereon. Conservation or promotion of biological diversity through: a) the provision, conservation, restoration or enhancement of a natural habitat; b) the maintenance or recovery of a species in its natural habitat. Prevent or reduce any potential for pollution that may be caused, or to remedy or mitigate the effects of any pollution that has been caused by a previous activity on the land, which has ceased. The maintenance, repair or restoration of a building or other structure, which is of historic or architectural interest associated with or situated in the woodlands of Dalgety Bay. Promoting volunteer activities, including Woodland Tidyin, Wildflower Planting, Tree Planting in Bathing House Wood, Gorse Clearing, and Nettle Clearing. Promoting community events, including the Dalgety Bay Horticultural Society Show, and the Dalgety Bay Gala Day. Carrying out fundraising.
Dronley Community Woodland	2017 - Scottish Charitable Incorporated Organisation -	1. To manage and improve Dronley Community Woodland for the benefit of the Community and wildlife through the promotion of the principles of sustainable development of Scotland's natural environment including social and economic development;	-

	Angus (Very Remote Rural area)	2. To inspire and educate the Community about the biodiversity and protected species of the woodland; 3. To facilitate and encourage the use of Dronley Community Woodland for educational purposes, including raising awareness of the environment, culture and history of the woodland: 4. To promote the development and civic amenity of the Community by providing workspace and land to encourage skills development, training and employment opportunities; 5. To provide recreational facilities, or the organisation of recreational activities with the object of improving the quality of life for the persons for whom the facilities or activities are primarily intended. 6. To provide and facilitate greater opportunities for recreational activities (both individual or group) which aim to contribute to the physical, mental and social health of the Community and other users of Dronley Community Woodland.	
Dunain Community Woodland	2004 Owned by Robertson Homes Scottish Charitable Incorporated Organisation - Highland (Other Urban area)	1. To manage and improve Dunain Woods for the benefit of the public and wildlife through the promotion of the principles of sustainable development of Scotland's natural environment including social and economic development; 2. To inspire and educate the public about the biodiversity and protected species of the woodland; 3. To facilitate and encourage the use of Dunain Woods for educational purposes, including raising awareness of the environment, culture and history of the woodland; 4. To advance community development by promoting and developing Dunain Woods as a civic amenity of the community to provide workspace and land to encourage skills development, training and employment opportunities; 5. To provide and facilitate greater opportunities for recreational activities (both individual or group) which aim to contribute to the physical mental and social health of the local community and other users of Dunain Woods.	-
	2000		Improving:

Dunbar Community Woodland Group	Community owned Unincorporated association 18 ha (Lochend Wood) East Lothian (Accessible Small Town)	1. To manage Lochend Woods as a community resource for the benefit of everyone in Dunbar; 2. To maximise potential for educational and recreational use; 3. To value and nurture wildlife; 4. To steward the environment, and maintain pathways and waterways; 5. Encourage all who use the woods to treat them with respect, to clear litter and to discourage damage to the trees and wildlife habitats; 6. To encourage group membership and conservation volunteering; 7. To preserve and manage Lochend Woods for future generations.	**Safety**: creating a welcoming and safe atmosphere. **Accessibility:** including use by older people and people with disabilities. **Recreation opportunities:** including walking, cycling, horse riding and children's play. **Health and well-being:** promoting activities and the use of the woodland. **Educational opportunities:** developing an environmental education programme for both primary and secondary schools in Dunbar. Sites and facilities will be developed for school classes to learn about different aspects of natural history related to the different habitats and other features found in the wood. **Appearance (landscape):** increasing the visual diversity of the internal woodland landscape, the amount of open space will be increased, stands of trees opened up and the understorey and ground layers of vegetation will be encouraged. Any facilities, such a play structures, benched and signs, will be designed to reflect the woodland character. **Wildlife value:** increasing the biodiversity value of the woodland. Open space, wet areas and edges will be enhanced and a wider variety of native woodland vegetation encouraged. Dead wood will be retained and some areas left relatively undisturbed by access. **Timber value:** producing a healthy and thriving woodland with the potential to contribute to revenue by the production of timber as a by-product of woodland activities. Any remaining dead and unsafe trees will be removed. Dense stands will be opened up by thinning. Natural regeneration will be encouraged and enrichment planting of some areas will take place. Spruce stands will be removed because they are not suited to the site and climate. A greater proportion of native species, especially oak, will be encouraged over time.
Dunnet Forest Trust	2002 Owned by Scottish Natural Heritage (but asset transfer to the	1. To promote the conservation, restoration and improvement, for the public benefit, of the woodlands in the geographic area of Dunnet Bay, Caithness as an important part of Scotland's natural heritage;	Volunteers have been systematically restructuring the forest - clearing windthrown areas, felling 'at risk' stands, and restocking these and other areas with a mix

	community is in progress) Company Limited by Guarantee & Registered Scottish Charity 104 ha Highland (Very Remote Rural area)	2. To advance the education of the public generally but particularly the education of young people concerning the local wildlife, conservation and preservation of the natural and cultural heritage of the area; 3. To provide, in the interests of social welfare, facilities for recreation and other leisure time occupations available to the public at large with a view to improving their conditions of life; 4. To provide relief for persons suffering from mental and/or physical disability, illness or impairment through the provision of recreational and other activities; 5. To promote and/or provide training in various skills, particularly such skills as will assist residents in the Dunnet Bay area in obtaining paid employment; 6. To promote, establish and operate other schemes of a charitable nature for the benefit of the community within the Dunnet Bay area; 7. To relieve poverty among the residents of the Dunnet Bay area; 8. To promote trade and industry for the benefit of the general public.	of conifers and broadleaves. DFT also employs one part-time professional forester. DFT's objectives are to promote the conservation, restoration and improvement of the woodlands in the geographic area of Dunnet Bay, Caithness, for the public benefit, an important part of Scotland's heritage. In doing so, DFT advances education and provides recreational facilities and training in a variety of skills, benefiting residents of the Dunnet Bay area and the wider Caithness community.
Dunning Community Trust	2004 Community owned Scottish Charitable Incorporated Organisation 20 acres (Kincladie Wood) Perth & Kinross (Other Urban area)	1. To consider and, with the approval of members, provide support for developments which are of benefit to the community now or in the future. 2. To manage community land "Kincladie Wood" and associated assets for the benefit of the community and the public in general as part of the protection and sustainable development of Scotland's natural environment. 3. To advance the education of the public in the management of woodland and environmental protection, conservation, rehabilitation and improvement. 4. To advance the education of the public in the understanding of woodland flora and fauna. 5. To protect, conserve, rehabilitate and improve the woodland for public benefit. 6. To advance the education of the community about the woodland's environment, culture and history.	
	1994		

Dunnottar Woodland Park Association	- - 33 ha Aberdeenshire (Other Urban area)	To help manage the natural and built heritage of Dunnottar Woods, Stonehaven, Scotland.	Works in partnership with FCS on the management of Dunnottar Woodland Park. Actively encourages the community to become involved in the woodland in activities such as litter clearing, educational events, and restoration of archaeology. Helps raise funds for footpath maintenance and signage
Dunvegan Community Trust	2009 - Unincorporated association - Highland (Very Remote Rural area)	To benefit the residents of the Dunvegan Community Council area by: 1. The advancement of community development and regeneration through education, the arts, the heritage, culture and sport; 2. Supporting organisations who are involved in the prevention and/or relief of poverty the saving of lives and advancement of health; 3. The advancement of environmental protection or improvement; 4. The relief of those in need by reason of age, ill-health, disability, financial hardship or other disadvantages (including relief given by the provision of accommodation); 5. The provision and organisation of recreational facilities for the benefit of all the above.	-
East Kilbride Community Trust	2009 Community owned Company Limited by Guarantee & Registered Scottish Charity 16.16 ha South Lanarkshire (Other Urban area)	To provide the people of East Kilbride with recreational and woodland facilities promoting community development and improving social inclusion by encouraging participation and provision of facilities that will attract members of the community. Encouraging, socialising, educational activities, information gain and healthy activities, which in turn, will strengthen social ties, enhance community development and integration. More specific aims include: 1. To advance public participation in sport in the community of East Kilbride through the promotion of participation in football and other sports which involve physical skill and exertion, by all means including providing coaching and development; 2. To advance health in the community of East Kilbride by the promotion of the benefits of physical activity, provision of assistance in relation to sports-related and healthy lifestyle matters and the promotion of good mental health; 3. To promote community development and equality and diversity in East Kilbride by encouraging participation in sports,	Promoting participation in sport, horticulture and other related activities through the provision of suitable facilities and programmes. Running the K-Park Training Academy, including sport and fitness related activities, and facilities maintenance (i.e., a full size 11-a-side 3G pitch, a 7 a-side pitch, changing rooms, toilets, disabled toilets, referee/lineman rooms with showers, fitness & well-being suite, storage facility, conference room, and food and drink kiosk). Running a Community Food Growing Programme. Running a Forest School. Organising community events, including health walks, forest school, play at K-Woodlands, movies nights, food in the woods, and citizen science events. Looking after K-Woodlands.

		activities and programmes which bring together a cross section of the community, encouraging all to participate, regardless of background or ability; 4. To provide recreational facilities, or organise recreational activities with the object of improving the conditions of life for the community of East Kilbride and also for those who have need of such facilities or would benefit from such activities by reason of their youth, age, infirmity or disablement, financial hardship or social and economic circumstances; 5. To advance education in the community of East Kilbride, particularly in relation to health and fitness, sporting activity and life skills, through providing or organising educational, training and lifelong learning opportunities; 6. To promote, facilitate and to provide funding and other assistance for such other community projects in the East Kilbride area which shall be of benefit to the local community or sections of the local community regardless of age, gender, ability, religion or ethnic origin.	
Echline Community Woodland	1992 Owned by South Queensferry Community Council - 0.3 ha South Queensferry (Other Urban area)	-	Activities include litter picking, planting, tree management, weeding and general woodland and gardening work. They also organise community events.
The Embo Trust (Urras Euraboil)	2010 - Company Limited by Guarantee & Registered Scottish Charity - -	1. To manage community land and associated assets for the benefit of the Community and the public in general; 2. To provide, or assist in providing, recreational facilities, and/ or organising recreational activities, which will be available to members of the Community and public at large with the object of improving the conditions of life of the Community; 3. To advance community development, including urban or rural regeneration; 4. To advance the education of the Community about its environment, culture, heritage and/or history; 5. To advance environmental protection or improvement including preservation, and conservation	-

		of the natural environment, the promotion of sustainable development, the maintenance, improvement or provision of environmental amenities for the community; 6. All of the above purposes shall be carried out following principles of sustainable development, where sustainable development means development which meets the needs of the present without compromising the ability of future generations to meet their own needs.	
Enzie Crossroads Community Woodland Association	2012 - Scottish Charitable Incorporated Organisation - Moray (Very Remote Rural area)	To advance local citizenship by increasing community involvement, encourage environmental protection and improvement through the conservation, management and sustainable enhancement of Longhill Wood for the benefit of the community.	-
Eshiels Community Woodland (Peebles Community Trust)	2020 Community owned (purchased from the Forestry Commission) Company Limited by Guarantee & Registered Scottish Charity 6.9 ha Scottish Borders (Other Urban area)	To protect a much-loved local asset from clear felling or speculative ownership, and encourage activities to enhance the landscape, improve biodiversity, secure public access, safeguard cycle route. To manage the woodland to improve biodiversity, sustainable productive management through community ownership and partnership, resurrect coppice management skills and provide a space for further skills training and nature learning.	Leaving most of the broadleaf trees in situ and planting more. Some Cyprus spruce now 100 ft tall, planted in 1928, will be retained as magnificent and rare specimens. There are exciting possibilities for trials of woodland management techniques such as coppicing, and the gradual extraction of timber for things like wood fuel, bean sticks. Management will also enable more food for river trout by encouraging invertebrates – fish, bird and bat food. Maintaining the area as a great place to walk and have picnics.
Ettrick and Yarrow Community Development Company	2013 - Company Limited by Guarantee & Registered Scottish Charity - Scottish Borders	1. To support the economic and social development of the rural communities of the Ettrick and Yarrow Valleys in the beautiful Scottish Borders. 2. To promote the advancement of citizenship and community development including the advancement of rural regeneration within the Ettrick and Yarrow valleys. More specific aims include: 1.To promote the advancement of the arts, heritage, culture or science; 2. To promote the advancement of education; 3. To	Creating and improving paths, including the Ring of The Loch and Captains Road. Exploring various renewable energy options for the valley communities. Leading the community purchase of the farm buildings and site of 2.06 hectares from Buccleuch Estates – to transform the old Kirkhope Farm steading into 5 affordable houses and 5 workshop units, provide some

		promote the advancement of environmental protection or improvement; Although the Company is established for the benefit of the Communities in the specified Postcode Areas its activities are not restricted to those Areas, where such activities are to the benefit of Communities in the Specified Postcode Areas or are intrinsically connected with activities within the Specified Postcode Areas. But such that the company shall do so following principles of sustainable development.	communal garden space and let out the small adjacent paddock. Leading discussions to purchase part of Gamescleuch Forest as well as the historic Ettrick Marshes. Leading the process of purchasing the disused former Ettrick school from Scottish Borders Council.
Evanton Wood Community Company	2007 Community owned Company Limited by Guarantee & Registered Scottish Charity 65 ha Highland (Accessible Rural area)	1. To manage community land and associated assets for the benefit of the Community and the public in general following principles of sustainable development, where sustainable development means development which meets the needs of the present without compromising the ability of future generations to meet their own needs; 2. To provide or assist in providing recreational facilities, and/or organising recreational activities, which will be available to members of the public at large with the object of improving the conditions of life of the Community and following principles of sustainable development; 3. To advance community development, including urban or rural regeneration, following principles of sustainable development; 4. To advance the education of the community about its environment, culture, heritage, and/or history; 5. To advance environmental protection or improvement including preservation and conservation of the natural environment the promotion of sustainable development; 6. To promote the maintenance, improvement or provision of environmental amenities for the community and/or the preservation of buildings or sites of architectural, historic or other importance to the community.	Silviculture and other forestry activities. Regular monthly Volunteer Days: thinning saplings, removing western hemlock, improving paths, planting native trees (some 3000 native species have been planted). Running guided walks/talks and orienteering courses. Surveying local fauna and flora. Promoting school visits and providing downloadable educational resources (e.g., Learning Resource to support visits to Evanton Wood). Promoting health and well-being activities, such as a Go Outdoors Dementia Project (which include exploration of the wood, artwork, woodwork, other craft activities and cooking). Promoting the accessibility of all ages and abilities to the woodland and its facilities. Promoting educational and community events, including Creeping Toad (environmental storytelling), bird box creation, and family events. Facilities: sculpted seats, secret trails, adventure play area and pond area.
	1994 -		Running diverse community events, including Free play in the woods, Remembering the old parish of Falkland,

Falkland Stewardship Trust	Company Limited by Guarantee & Registered Scottish Charity 1900 ha Fife (Accessible Rural area)	1. To preserve and enhance the built, cultural and natural heritage of Falkland for the benefit of the local people and the surrounding area; 2. To promote the practice and understanding of stewardship more widely.	Running community projects, such as Local Food Works (which activities include community meals, cooking workshops and food demonstrations – to make it easier for the local communities to access, cultivate, harvest, process, cook, taste and celebrate local food). Running training projects, including Our Bright Future (developing rural skills, building and crafts skills), Work on the Wildside (which involved working on the land, in forestry, farming, woodcraft and catering with fresh, locally grown ingredients), and Grow Your Mind (which activities include woodland management and traditional crafts – to improve mental health, well-being and employability). Promoting conservation and educational projects, including Kew Millennium Seed Bank project and Journeys into the Magical Landscape project. Facilities: The Temple of Decision, The House of Falkland, and Stables.
Fernaig Community Trust	1998 Community owned Company Limited by Guarantee & Registered Scottish Charity 110 acres Highland (Very Remote Rural area)	1. To promote the benefit of the inhabitants of Fernaig and it's environs without distinction of sex, sexuality, political, religious or other opinions by associating the local statutory authorities, voluntary organisations and inhabitants in a common effort to enhance education and to provide facilities, in the interest of social welfare for recreation and other leisure-time occupation so that their conditions of life may be improved; 2. To preserve and conserve for the benefit of the general public the natural environment in the Fernaig, Achmore, and Strome Ferry area; such conservation and preservation to be carried out in a manner that is sustainable; 3. To advance the education of the public and in particular school children on the environment; 4. To carry out any other charitable purpose as the members may at their own discretion decide.	Creating and maintaining footpaths.
Findhorn Hinterland Trust	2015 Held under multiple ownerships – the Findhorn Dunes Trust	1. To promote environmental protection and improvement;	Managing woodland, gorse and heath, and grassland areas. Running a Small Green Burial. Producing firewood.

	(FDT), the Findhorn Foundation (FF), Duneland Ltd (DL), the Findhorn Village Conservation Company, Ministry of Defence, Cullerne Farm and a number of privately owned residential properties	2. To educate the local community and wider public in relation to the outdoor and environmental opportunities local habitats and environs provide; 3. To encourage community development through offering activities related to the land and by promoting cooperation and collaboration amongst owners and stakeholders; 4. To provide recreational facilities and activities with the object of improving the conditions of life for local people and others in West Moray and beyond. More specific aims include: 1. The advancement of environmental protection and improvement with particular reference to the habitats of the Findhorn peninsula, Moray, Scotland; 2. The advancement of education of the local community and wider public especially related to the outdoor and environmental opportunities provided by the Findhorn peninsula habitats and environs; 3. The advancement of community development by encouraging community cooperation, development and resilience through activities related to land on the Findhorn peninsula and its management; 4. The provision of recreational facilities and activities with the object of improving the conditions of life for local people and others in West Moray and beyond.	Establishing and managing an Edible Woodland Garden. Conservation activities include on the ground activities such as tree clearance on nationally important lichen beds, tree planting and care on other parts of the land, encouraging conservation grazing of ponies, new pond maintenance and bird box erection as well as activities such as promoting integrated land management with landowners and bringing people's attention to important documents such as the Findhorn Dunes Trust Lichen Survey, FHT Baseline Fungal Survey Nov 2020, Findhorn Hinterland bryophyte survey Oct 2020, Mosses Findhorn and the Local Biodiversity Action Plan 2020-2025. Educational activities that encourage groups ranging from school groups of all ages, adults with learning difficulties, courses held by the Findhorn Foundation etc to use the land for different educational purposes. It also has a small apiary and hands-on learning of the art of beekeeping is offered. A demonstration Edible Woodland Garden has been developed and members regularly meet to look after this and have a social time. Regular talks and public events are put on to promote different aspects of the Charities educational work. Providing Recreational spaces by maintaining and developing paths for access in the woods and to and from the dunes, providing informative weekly walking tours, and offering a booking system and guides for the responsible use of the woodland shelter, fire areas and small group camping areas. It also works with the Moravian Orienteers to help make sure that the land can be used for this sport with little impact on the land's important features. Two ponies continue to use the land on a regular basis. Promoting community building through public consultation, attending events such as those of the Community Woodlands Association, providing opportunities for people to meet through monthly work parties on the land and weekly gatherings in the Edible Woodland Garden, gatherings for special events such as
	Scottish Charitable Incorporated Organisation		
	35.79 ha		
	Moray (Other Urban area)		

			the celebration around becoming a charity and a Christmas gathering where people come to collect trees and share time around a fire all provide opportunities to build local community. Facilities: Woodland Shelter, Fire Pit, and Camping Locations.
Fintry Development Trust	2007 - Company Limited by Guarantee & Registered Scottish Charity - Stirlingshire (Accessible Rural area)	1. To advance environmental protection by promoting the adoption of measures to encourage the more efficient use of the world's resources, and in particular more efficient use of non-renewable energy sources so as (i) to minimise the proliferation of mines, wells and other extraction facilities which degrade the natural environment and (ii) to reduce greenhouse gas emissions and thus avoid the damage to the natural environment caused by global warming; 2. To prevent and/or relieve poverty, and to relieve those in need by reason of age, ill-health, disability, financial hardship or other disadvantage, through providing them (either free of cost, or at reduced cost) with a range of energy conservation measures; 3. To advance education in the fields of renewable energy, energy conservation, and similar areas; 4. To promote the voluntary sector and the effectiveness and/or efficiency of charities, and in particular, through providing them (either free of cost, or at reduced cost) with a range of energy conservation measures.	The trust has three subsidiaries: Fintry Renewable Energy Enterprise which has a production sharing agreement at the nearby Earlsburn Windfarm; Fintry Community Energy which owns and operates a small biomass district heating scheme supplying heat to 20 households; Fintry Renewable Energy Distribution which operated the Smart Fintry project. Their work involve consulting within the community and externally with organisations they have worked with in the past to ensure they continue to support the Fintry community and reduce its environmental impact. They encourage their members to bring forward ideas for the Trust to investigate and they monitor many environmental forums to keep up to speed with technology and opportunities. Their past projects include: 2007/8 Insulation Project (which offered free loft and cavity wall insulation to all residents of Fintry), 2009 Sports Club Energy Saving Project (which provided energy saving lighting and sensors for the Sports Club which is the main community hub with small shop, bar and café), Renewable Energy Shows held in Fintry (in 2009, 2010, 2012, and 2014), the creation of an outdoors classroom for the Primary School in 2010, the development of several Climate Challenge awarded projects, opened the Community Garden for all to use, 2015 District Heating (heating system development of plans for Balgair – 26 chalet homes, most residents in fuel poverty), 2016 SMART Fintry Project (which aimed to balance local green energy production with local community's energy use), 2017 Year 2 of Smart Fintry Project (installed Solar PV to the Nursery building), 2018 Completion and

			reporting on the SMART Fintry project (investigated the potential for extending the SMART Fintry project through consultations with industry, businesses and the community).
Field Group Duddingston	2014 Lease from City of Edinburgh Council. Scottish Charitable Incorporated Organisation 2.5 ha City of Edinburgh (Large Urban area)	1.The advancement of environmental improvement, through the creation and management of semi-natural habitats and the sustainable production of fruit and other grown products, and the sustainable use of water and other resources; 2. The advancement of education through workshops, training and peer to peer learning related to the acquisition and sharing of the skills needed to manage semi-natural habitats and orchards with members, other groups and the public; 3. The provision of recreational facilities, or the organisation of recreational activities, with the object of improving the conditions of life for the persons for whom the facilities or activities are primarily intended, and/or members of the public at large.	Running a community orchard and woodland project. Creating a diverse habitat to include semi-natural woodland, herb-rich meadow and wetland as well as an orchard, willow bed and tree nursery. Creating and maintaining paths. Restoring semi-natural habitats – notably semi-natural broadleaved woodland and herb-rich meadow. As part of this work, they are monitoring changes in the plants and animals using the field – hopefully finding increased diversity, especially of rare species. Holding community activities and events, including a Lantern Festival.
Forres Community Woodlands Trust	1999 Community owned (purchased from private landowner) Company Limited by Guarantee & Registered Scottish Charity 40 acres Moray (Other Urban area)	1. To maintain and improve the biodiversity of the woodlands. 2. To fulfil the potential of the woodlands in enhancing the quality of life for the community and visitors through the provision of public access and recreational facilities. 3. To accomplish sustainable forest management through silvicultural and environmental good practice 4. To promote the woodlands as a highly valued environmental and educational asset for all the community and visitors to the area but particularly for school children and young people. 5. To engender a strong sense of ownership, involvement and relevance of our woodlands amongst the local community. More specific aims include: 1. To conserve, regenerate and promote the restoration of native woodlands in and around Forres as an important part of Scotland's natural environment for the benefit of the public; 2. To advance the education of the public and the local community	Providing local people and visitors to the area with ready access to special places to enjoy peace and quiet, healthy exercise, education and recreation. Improving access to the Muiry Wood and New Forres Wood. Creating and maintaining footpaths and Mountain Bike Trails, and displaying information on tracks and paths through the woodlands. Building Forres House Community Centre. Encouraging use of the woodlands for education and recreation. Creating a wild flower meadow. Developing biodiversity of the area around the ponds. Restoring young heather and ground level plants in appropriate areas. Removing invasive species, including rhododendron, laurel, and mature sitka spruce. Managing, planting, and thinning the woodland areas to enhance woodland biodiversity and access. Installing bird and bat boxes. Carrying out annual safety Inspections.

		about relevant countryside matters and in furtherance thereof but not otherwise; 3. To work alone or in partnership with any organisation, agency, authority or other body to establish, manage and improve the woodlands around Forres, including access, recreation, conservation, environmental and cultural matters; 4. To encourage community involvement in the management of local woodlands; 5. to prepare and review alone or in partnership with other bodies, management plans stating the objectives of management for any local woodlands, identified as appropriate by the Company as an important part of Scotland's natural environment for the benefit of the public.	Maintaining appropriate public liability insurance. Promoting a regular programme of volunteer assistance in all woodlands. Keeping the Community and members informed about the Trust's activities. Maintaining an up to date comprehensive and informative website. Issuing regular, informative newsletters.
Forward Coupar Angus	2011 - Company Limited by Guarantee & Registered Scottish Charity - Perth & Kinross (Accessible Rural area)	1. To promote a sustainable community able to provide opportunities for people to improve their lives and the local environment. 2. To support local organisations in achieving their objectives for the well-being of the community. More specific aims include: 1. To promote the sustainable development of the area, incorporating the aims of social inclusion, economic prosperity and a pleasant and healthy environment; 2. To promote effective democratic participation in decisions relating to the sustainable development of the area; 3. To promote caring, supportive and constructive roles in the community, thereby preventing social isolation and discouraging anti-social behaviour; 4. To encourage positive interaction between the generations; 5. To provide within Coupar Angus recreational facilities, or organise recreational activities, with the object of improving the conditions of life for the persons for whom the facilities or activities are primarily intended; 6. To provide education and training in pursuance of the company's objects.; 7. To advance environmental protection and improvement in Coupar Angus through the provision, maintenance and/or improvement of public open space and other public amenities and other environmental and regeneration projects (but subject to appropriate safeguards to ensure that the public benefits	Planting trees and improving biodiversity – in 2015 forming a diverse range of native broadleaved trees and fruit cultivators, included a mix of Hawthorn, Blackthorn, Silver Birch, Common Oak and Rowan which donated by the Woodland Trust. As well as fruit trees such as apple, pear and plum. Further planting in the autumn of 2016 achieved with the support of the Dundee Lions, added to tree diversity with species including Spruce, Western Hemlock and Larch. This was further added to by another Woodland Trust seasonal donation tree pack comprising Hawthorn, Dogwood, Silver Birch, Hazel and Rowan. More trees were planted in 2017 to soften the boundary of the main planting area. A total of approximately 800 trees have been planted on the almost 2 hectare site. Providing interpretive trail features. Encouraging use of the woodlands for education and recreation. Promoting diverse volunteering activities. Improving walking and cycle infrastructure, such as designated routes and cycle storage facilities. Developing community projects, including Active Travel and Cycle Hub (which promotes walking, cycling, bike repairs, and car sharing), Food and Growing (which runs several Community Gardens and

		so arising clearly outweigh any private benefit thereby conferred on private landowners); 8. To advance community development through the promotion of trade and industry within Coupar Angus for the benefit of the general public.	encourages people of Coupar Angus to grow and use more Local Produce, Cook Better, Eat Better and Live Better by promoting cooking classes and festivals), and Climate Literacy (which, via a series of Climate Literacy workshops, aims to encourage members of Coupar Angus to understand the importance of making an individual commitment towards reducing the impact of climate change).
Friends of Duchess Wood	2007 Owned by Luss Estates Ltd. Unincorporated association 22.26 ha Argyll & Bute (Other Urban area)	To assist in the management of the Duchess Wood and safeguard its benefits to the community in terms of biodiversity and quiet enjoyment by the public-including recreational and educational use. More specific aims include: 1. To manage the Wood so as to maintain and enhance its semi-natural, mostly broad-leaved, habitat and conserve and improve its biodiversity; 2. To provide and enhance provisions for public access; 3. To maintain access-ways and other facilities used by visitors; 4. To encourage and publicise research; 5. To encourage and promote education and recreation; 6. To support voluntary involvement.	Encouraging all uses to make use of the wood in a responsible manner being cognizant and sympathetic of other users (walkers, horses and bikes).
Friends of Glenan Wood	2016 Community owned (purchased from the Forestry Commission) Scottish Charitable Incorporated Organisation 145 ha Argyll & Bute (Very Remote Rural area)	1. The advancement of environmental protection or Improvement. 2. The provision of recreational facilities, or the organisation of recreational activities, with the object of improving the conditions of life for the persons for whom the facilities or activities are primarily intended. 3. The advancement of citizenship or community development.	Planning regular work parties that will help to manage Glenan Woods and improve access. Work includes path maintenance, beach cleans, bracken control and more. Addressing the problem of invasive species (especially rhododendron and non-native conifer) that threaten to out-compete native species. Taking measures to mitigate the effects of a large deer population that is preventing natural regeneration of the key tree species by over-grazing. Making improvements to access and the path network for people to enjoy all parts of the woodland and its coastline.
Friends of Leadburn Community Woodland	2005 Community owned (purchased from the Forestry Commission) Company Limited by Guarantee & Registered Scottish Charity	To manage community land and associated assets for the benefit of the Community and the public in general as an important part of the protection and sustainable development of Scotland's natural environment, where 'sustainable development' means development which meets the needs of the present without compromising the ability of future generations to meet their own needs.	Leadburn Wood is an area of former conifer plantation, previously owned by the Forestry Commission. Most of the original block of 44 hectares (109 acres) was clear felled in 2001/2. An additional block of just over 9 hectares (23 acres) was bought in March 2019.

	53 ha Midlothian (Accessible Rural area)	1. The provision of recreational facilities, or the organisation of recreational activities, with the object of improving the conditions of life for the persons for whom the facilities or activities are primarily intended. 2. The advancement of environmental protection or improvement.	They are trying to create a pleasant and varied location there for community use. They have planted native tree species, started to restore two raised bogs, created large ponds and retained some open areas. Activities include planting trees, shrubs, flowers, and other non-wood plants (mixed species), clearing of conifer regeneration, path creation, habitat creation for barn owls, bats, and bees, creating ponds, selling Christmas trees, running volunteering days, organizing walks/events, and maintenance activities.
Friends of Newtonhill Woodland	2002 - Unincorporated association - Highland (Very Remote Rural area)	1. To promote the conservation, protection and improvement of the physical and natural environment at Newtonhill Community Woodland. 2. To promote the benefit of the inhabitants of Newtonhill and its environs without distinction of sex, sexuality, political, religious or other opinions by associating the local statutory authorities, voluntary organisations and inhabitants in a common effort to advance education and to provide facilities, or assist in the provision of facilities, in the interest of social welfare for recreation and other leisure-time occupation so that their conditions of life may be improved. 3. To advance public education in environmental matters and of ways of better conserving, protecting, and improving the same wheresoever.	-
Friends of Plean Country Park	2011 - Scottish Charitable Incorporated Organisation - Stirling (Other Urban area)	1. To conserve, enhance and promote Plean Country Park for the benefit of people and the natural environment. 2. To conserve, enhance and improve the landscape, biodiversity and sustainable use of the area for the benefit of both people and wildlife. 3. To represent the views of park users and the local community. 4. To enable and encourage the local community and other park users to maximise their enjoyment of the park for leisure and recreational purposes while encouraging them to take an interest in the upkeep and protection of the park.	Improving facilities, including car park extension, installing wooden sculptures and interactive signs (about the history and wildlife of the location). Reminding all visitors to be aware of and take into consideration other users when enjoying the park – Plean Country Park is used for many outdoor pursuits including walking with and without dogs, horse riding, running and cycling.

		5. To promote, encourage and secure the educational value of the area, its historical, architectural, landscape and ecological qualities in conjunction with Stirling Council and other relevant bodies. 6. To promote the involvement of local schools and other youth Groups through information exchange, educational and practical activities within the park. 7. To carry out and promote both environmental improvements and practical conservation measures involving the local community and other park users through publicity, education and the involvement of community groups. 8. To actively seek the involvement of relevant services within Stirling Council to ensure that statutory responsibilities are met.	
GalGael	1990 - Company Limited by Guarantee & Registered Scottish Charity - Glasgow City (Large Urban area)	To work together and demonstrate that more humanity is possible in the world. More specific aims include: 1. To explore and practice renewed ways of living and working together including in our democratic participation, work and the stories we live by; 2. To create spaces and experiences for people that strengthen skills and capacities and our connection to self, others and the generations yet to come; 3. To reclaim our cultural heritage, traditions and connections to the land and waterways; 4. To sustain ourselves as a healthy working community; 5. To share our learning with others and influence change for a society that works for all; 6. For the relief of poverty, youths in necessitous circumstances, the aged, handicapped or infirm, the furtherance of health and the advancement of education.	Running a work-based training programme to give people purpose, skills support and compassion, so that they can reclaim their future. Their work includes boat building, timber processing and woodwork. Soup or a basic meal is provided to all involved on a daily basis. They have a sawmill, prepare and sell timber; teach woodcraft skills and make/sell products. They also have a community allotment and farmhouse and land in rural Argyll. They built a 25-foot timber-frame workshop using timber from the local park.
Gearrchoille Community Wood	2003 Community owned Company Limited by Guarantee & Registered Scottish Charity 30 acres Highland (Remote Rural)	1. To conserve, preserve and protect the Gearrchoille Community Wood Ardgay for the benefit of the public and in particular for the inhabitants of Kincardine and Croick; 2. To conserve, preserve and protect the wildlife, flora and fauna of the Gearrchoille Community Wood for the benefit of the aforesaid persons;	Since being in the care of the local community, access has been improved, the former curling pond has been restored as a wildlife pond and the wood is used as a venue for a variety of community events. They built a community shelter. They organise a regular volunteer afternoon to carry out routine maintenance tasks in the wood, such as path maintenance, birch thinning & pond clearing.

		3. To advance the education of aforesaid persons about Gearrchoille Community Wood, its wildlife, flora and fauna and the conservation, preservation and protection thereof; 4. To provide, in the interests of social welfare, facilities for recreational or other leisure-time occupation with a view to improving the aforesaid persons' conditions of life. And in furtherance thereof but not otherwise; 5. To work alone or in partnership with any organisation, agency, authority or other body to establish, manage and improve woodlands in the said area including access, recreation, conservation, environmental and cultural matters. 5. To encourage community involvement in the management of local woodlands, and 6. To prepare, review and implement alone or in partnership management plans, schemes and proposals for the attainment of the objects of the Company.	They organise community activities and events, including nest box building, Forest School, Easter Egg Hunt and Santa's Magical Woods with lights and decorations. They look after the semi-natural ancient broadleaved woodland, protecting it from deer browsing and assisting woodland regeneration. Gathering more information about Gearrchoille's wildlife, throught activities such as moth trapping, bat, lichen and squirrel surveys, and biodiversity recording. Establishing a community orchard.
Gifford Community Woodland	2016 Community owned Company Limited by Guarantee & Registered Scottish Charity 22 ha East Lothian (Remote Rural area)	The company's main purpose is consistent with furthering the achievement of sustainable development (where sustainable development means development which meets the needs of the present without compromising the ability of future generations to meet their own needs). The company's purposes are: 1. To provide or advance the accessibility of recreational, facilities, and/or organising recreational activities, which will be available to members of the Community and public at large with the object of improving the conditions of life of the Community. 2. Advancement of citizenship or Community development, including rural or urban regeneration. 3. To advance the provisions for educational opportunities in the Community relating to environment, culture, heritage and/or history. 4. To advance environmental protection or improvement including preservation, sustainable development and conservation of the natural environment, the maintenance, improvement or provision of environmental amenities for the Community and/or the preservation of buildings or sites	Rhododendron control Wildlife camera Providing information for visitors

		of architectural, historic or other importance to the Community.	
Glasgow wood recycling	2007 - Company Limited by Guarantee & Registered Scottish Charity - Glasgow City (Large Urban area)	They are committed to reducing the amount of wood needlessly going to landfill by finding creative and socially inclusive ways to reuse this valuable natural resource. More specific aims include: 1. To promote for the benefit of the public the conservation, protection and improvement of the physical and natural environment; 2. To advance education for the public benefit; 3. To promote the benefit of the inhabitants of Glasgow and its environs without distinction of sex, sexuality, political, religious or other opinions by associating the local statutory authorities, voluntary organizations and inhabitants in a common effort to advance education and to provide facilities, or assist in the provision of facilities, in the interest of social welfare for recreation.	Collecting wood waste from all over Glasgow, sorting it out at their South Street workshop, and then reusing it to make quality furniture and design bespoke pieces for home, businesses and social sector organisations, anything from tables in bars to eco-gardens in schools! Through these activities, they provide volunteer and training opportunities to local people, as a practical way of tackling unemployment and social exclusion.
Glendale Estate Charitable Trust	1997 - Trust (founding document is a deed of trust) (other than educational endowment) - Glasgow City (Large Urban area)	1. To provide public amenities and public community and recreational facilities at and in the Estate, for the benefit of the residents of the Estate and its environs. 2. To provide facilities for recreation and other leisure time activity so that the conditions of life of the residents of the Estate and its environs may be improved in the interests of social welfare. 3. To provide for the establishment of a Community Centre and to maintain and manage such a Centre in furtherance of the foregoing objects. 4. To maintain and enhance the foregoing public amenities and community facilities at and in the Estate for the benefit of the residents of the Estate and its environs.	-
Glengarry Community Woodlands	2016 Community owned Company Limited by Guarantee & Registered Scottish Charity 80 acre Highland (Very Remote Rural area)	To manage it for the benefit of the community in Glengarry. This means providing services and activities which meet the needs of the community, helping to improve the local economy by providing jobs and increasing trade to local businesses, and helping to make Glengarry a better place to live by opening up the woodland with new footpaths.	Working to bring the woodland into active management, using it for activities for the community, and planning for a social-enterprise to create jobs. Running a forest school club for local children, guided wildlife walks, volunteering sessions, events for the whole community, and green woodworking courses. Woodland management with a focus on improving biodiversity, amenity, and enterprise, while still

		More specific aims include: 1. To manage community land and associated assets for the benefit of the Community and the public in general; 2. To provide, or assist in providing, recreational facilities, and/or organising recreational activities, which will be available to members of the Community and public at large with the object of improving the conditions of life of the Community; 3. To advance community development, including urban or rural regeneration within the Community; 4. To advance the education of the Community about its environment, culture, heritage and/or history.; 5. To advance environmental protection or improvement including preservation, sustainable development and conservation of the natural environment, the maintenance, improvement or provision of environmental amenities for the Community and/or the preservation of buildings or sites of architectural, historic or other importance to the Community.	retaining strong elements of commercial timber production. The first step in achieving these aims is to begin the gradual process of converting the even-aged and neglected plantation into an uneven-aged and diverse woodland with a bigger proportion of native species which is much better for wildlife, more pleasant for people to visit, but still produces commercial timber of a high standard.
Gordon Community Woodland Trust	2002 Community owned Company Limited by Guarantee & Registered Scottish Charity. 85ha Scottish Borders (Remote Small Town)	The Object for which the Trust is established is to conserve, regenerate and manage native woodlands in the Community of Gordon in Berwickshire (hereinafter referred to as "the Community") as an important part of Scotland's natural environment for the benefit of the Community in particular and the public generally. 1. Public access and recreation 2. The advancement of citizenship or community development 3. The advancement of environmental protection or improvement	There are no employees. All work is carried out by volunteers through GCWT, BFT and New Caledonian Woodlands. The latter two organisations provide their own organisational structure, supervision and safe working practices. The main tasks have been planting Christmas trees, access improvements, drainage and formative pruning. Contractors were used in the early stages, for example to create the pond and all abilities track, but have not been required since.
Green Aspirations Scotland	2013 - Community Interest Company (CIC) 4,500 acres Stirling (Accessible Rural Area)	It aims to support people to care for their environment and themselves, by: 1. Enhancing and conserving woodland for biodiversity, the local community and future generations 2. Delivering workshops in traditional and rural skills 3. Working with vulnerable groups to raise aspirations within the green sector, with a focus on young people who have struggled with traditional schooling	They work with different groups of people – community groups, young adults, school pupils, kids and crafters – to develop traditional skills, create an appreciation of the woodlands, and encourage sustainable and healthy environments.

		4. Creating economic activity from local woodlands 5. Providing a consultancy service to community groups to improve green space and woodlands 6. Offering weekly volunteer days for people to benefit from the exercise while conserving our woodland and learning new skills.	
GreenFerry	2007 - Unincorporated association - City of Edinburgh (Large Urban area)	To improve the green spaces in and around South Queensferry. More specific aims include: 1. To conserve and improve the environment for the benefit of the public by providing a collection of experience to provide help and advice to environmental groups; 2. To educate and involve the local community in environmental issues by providing a communication network and supporting the work of other environmental groups.	Running a community garden.
Guildtown Community Association	2000 - Unincorporated association - Perth & Kinross (Accessible Rural area)	To be as sustainable as possible: both financially and environmentally. More specific aims include: 1. To promote the benefit of the inhabitants of Guild town and environs without distinction of political, religious or other opinion, by associating the inhabitants and voluntary organisations in a common effort to advance education and to provide facilities in the interest of social welfare for recreation and leisure time occupation with the object of improving the conditions of life for the said inhabitants; 2. To secure the establishment, maintenance and management of a Village Hall and Recreation Area for activities promoted by the Association in furtherance of the above objects, or any of them.	Upgrading paths around the village (hard-core wheelchair usable paths). Bridging was installed over the burns and horse gates installed at a couple of locations. Signing paths in the core path network. Linking in with the numerous farm tracks and back roads in the area. Installing a ground source heat pump system, solar thermal panels, a solar PV array; and a charging point for electric cars.
Helensburgh Community Woodlands Group	2014 In process of acquisition by the community Scottish Charitable Incorporated Organisation 5.3 acres	The Group's main purpose is consistent with furthering the achievement of sustainable development. Its specific purposes are, for the public benefit, to defend, restore, conserve and acquire rights of positive and active community woodland management in the designated district.	Intended work include: 1. The enhancement of tree coverage and remedy the environmental neglect; 2. The creation of better quality footpaths and boardwalks in the woodland; 3. The creation of specific welcoming access points to and from the woodland, with appropriate signage; 4. The construction of quality timber fences where appropriate to demarcate the boundary of the community woodland. Following

	Argyll & Bute (Other Urban area)		consultation, it has been agreed also to include a native tree species hedge on the same route as the proposed boundary fence; 5. Felling and management of trees which are dead, dying or dangerous, particularly on the boundaries with neighbouring houses; 6. Ensuring positive ground water management within the woodland, and utilising the water to create a new pond, while at the same time preventing downstream water problems that have affected neighbouring properties. The exact location of the pond will be finalised after a water management assessment has been carried out; 7. Encouraging suitable wildlife habitats to promote local biodiversity; 8. Removing the invasive laurel bushes to let more light into the woodland making it more accessible and welcome to the walkers and users; 9. Felling some non-native trees within the woodlands to make the vegetation more open and to allow native shrubs and trees to prosper; 10. Planting specific native trees to ensure a stronger woodland structure.
Highland Perthshire Communities Land Trust	2002 Community owned Company Limited by Guarantee & Registered Scottish Charity 450 ha Perth & Kinross (Very Remote Rural area)	To provide benefit to communities within Highland Perthshire, the Charitable Purposes of the Trust ("the Charitable Purposes") are: 1. To advance environmental protection and improvement by the restoration of native woodland and other habitats as important means of conserving and increasing biodiversity; 2. To advance education and training in ecology, land management and rural skills by facilitating opportunities for educational establishments and other organisations; 3. To provide and organise recreational opportunities, primarily by providing access to walking and to wildlife observation.	Running volunteer and training days, activities include planting and looking after trees, helping to maintain fence line (to keep the tree munching deer out), helping to maintain and improve the network of walking trails and getting involved in habitat surveying and wildlife monitoring. FREE tea/coffee and biscuits provided. Running a Rural Skills Training Programme, offering training in Chainsaw / Brushcutter / Dyking / Fencing and Quadbiking, as well as practical work experience. Working closely with local school communities and regularly hosting various school groups up at Dun Coillich. This includes Rural Skills Pupils from Breadalbane Academy and Junior Rangers from Pitlochry High who visit us regularly throughout the year. They also host visits from local primary schools and local scout, beaver and cub groups, and always welcome people to come and see what they are up to and maybe pick up a spade and help them out!
Highland Renewal	1994 -		-

	Company Limited by Guarantee & Registered Scottish Charity - Argyll & Bute	To manage the Tireragan estate at the very southwest tip of Mull for regeneration, conservation and educational purposes. More specific aims include: 1. To advance education and, in particular, to increase public knowledge and awareness of (i) the means by which viable rural communities can be established and maintained in the Highlands and Islands of Scotland and (ii) the principles associated with evolving land use policies (including the application of appropriate agricultural and forestry methods and practices) which recognise the importance of conserving natural resources and minimising impact on the natural environment; 2. To preserve, conserve, restore and improve the environment, in particular through the development and application of appropriate agricultural and forestry methods and practices (as referred to above) and through the establishment and maintenance of nature conservation areas.; 3. To promote and/or provide training (i) in the methods and techniques of sustainable agriculture and forestry and/or nature conservation and (ii) in traditional craft skills, and to advance education through promotion of the arts; 4. To provide in the interests of social welfare facilities for recreation and other leisure time activity available to the public at large with a view to improving their conditions of life; 5. To relieve poverty, particularly among residents of the Highlands and Islands of Scotland; 6. To promote, establish, operate and/or support other schemes of a charitable nature.	
Huntly Development Trust	2008 - Company Limited by Guarantee & Registered Scottish Charity - Aberdeenshire (Remote Rural area)	1. To advance development of the Community by maintaining, improving and regenerating its physical, economic, social and cultural infrastructure, and assisting people who are at a disadvantage because of their social and economic circumstances. 2. To advance the education of people and organisations so that they can play a leading, proactive role in the sustainable development of the Community. 3. To advance the arts, heritage and culture of the Community to the benefit of both locals and visitors.	Activities include: Developing infrastructure – Improving town gateways, signage & interpretation, and Huntly's online presence. Developing the economy – Investigating feasibility, acquisition and development of a Huntly Hub; Investigating feasibility of small workshop unit development for local businesses; Developing and coordinating holiday, skills and sports activity packages; Investigating opportunities to develop the Huntly retail sector.

		4. To advance public participation in sport (meaning sport which involves physical skill and exertion). 5. To advance environmental protection or improvement. 6. To provide recreational facilities and organise recreational activities within the Community, with the object of improving the conditions of life for all. 7. To promote, establish, operate and/or support other similar activities and projects of a charitable nature within the Community for its benefit. But such that the Company shall do so following the principles of sustainable development and in a way that respects and enhances the Community's local culture, social traditions and built heritage, as well as the local and global natural environment.	Strengthening society – Undertaking mapping/identification of social support needs. Advancing Culture and Heritage – Draw up a town marketing plan. Promoting Sport in the Community – Developing cycling in and around Huntly; Developing walking in and around Huntly; Investigating the feasibility of building a bunkhouse. Improving the Environment – Draw up a town sustainability plan; Investigating opportunities for recycling services; Developing renewable energy projects (Wind farm and microhydro scheme).
Insh Community Holdings	2020 In process of acquisition by the community Scottish Charitable Incorporated Organisation 6.3 ha Highland (Remote Rural area)	To continue the site work they have been undertaking for the past 20 years, with the aims: 1. To advance the environmental protection and improvement of the Community's natural habitat, in particular the grazings and woodland, following the principles of sustainable development, by the conservation, management and enhancement of the plant and animal species therein; 2. To advance education about the history and management of the Community's natural habitat and to enable use of the facilities by schools and other organisations for educational purposes; 3. To advance citizenship and community development by encouraging voluntary activity and recreation in, and promoting civic responsibility for, the Community's natural habitat.	The woodland has been managed by the community under a lease since 1999. An asset transfer request has been made and is currently being processed.
Islay Development Initiative Ltd.	2003 - Company Limited by Guarantee & Registered Scottish Charity 264 acres Argyll & Bute (Very Remote Rural area)	To create sustainable employment and deliver long-term change in the use of our natural resources. More specific aims include: 1. The advancement of community development (including the advancement of rural regeneration) within the Community; but only to the extent that the above purposes are consistent with furthering the achievement of sustainable development; 2. To operate and absorb key services that the community requires; 3. To protect the natural	Developing a series of initiatives which reduce communities impact on Islay and the wider environment, enhance quality of life and protect the very nature of their beautiful island. Activities include beach cleaning, beekeeping, wood recycling, Silviculture and other forestry activities, Treatment and disposal of non-hazardous waste, and Retail sale of other second-hand goods in stores.

		environment on the Isle of Islay by promoting and encouraging sustainable use of resources through a circular economy approach; 4. To reduce waste, reuse resource and recycle wherever possible and promote education in the field of waste management to our community, visitors and businesses, moving towards zero waste; 5. To carry out and facilitate such projects, activities and research that conserve and protect biological diversity, natural habitats and our environment; 6. To relieve poverty among the residents of the Isle of Islay by promoting and providing training, development and employment, particularly but not restricted to young people and residents within the community with individual needs; 7. The organisation shall have the power to do all things necessary for the fulfilment of these objectives.	
Isle Martin Trust	1999 Community owned Company Limited by Guarantee & Registered Scottish Charity 4.42 ha Highland (Very Remote Rural area)	1. To advance the education of the public about Isle Martin, its history, flora and fauna, the culture of its former inhabitants and associated heritage; 2. To preserve for the benefit of the public the flora, fauna and wildlife of the Island.	Regenerating the quality and diversity of the natural heritage of the island (programme of broad-leaved woodland regeneration). Developing the educational, cultural, human and recreational potential of the island as an important local and national resource. Identifying opportunities for sustainable economic activity in so far as it is consistent with conserving the natural habitat and wildlife interest of the island and the Trust's charitable status. Encouraging and ensuring open access to the island.
Isle of Eigg Heritage Trust	1996 Community owned (purchased from private landowner) Company Limited by Guarantee & Registered Scottish Charity 366 ha Highland (Very Remote Rural area)	To take all appropriate measures to conserve the natural heritage (being the flora and fauna, the geological, physiographical and archaeological features, and the natural beauty and amenity) of the Isle of Eigg for the benefit of the community of the island and the public at large and to promote open public access thereto insofar as this is not detrimental to such conservation.	Renovating and building properties. Establishing wind turbined, solar panels, and hydro-powered electricity grid. Improving and restoring natural habitat. Planting and maintaining a community orchard. Creating a range of new business opportunities, including a woodfuel enterprise. Volunteer activities include litter picking, bramble and bracken management, herb garden weeding, natural regeneration management, beach cleans, marine litter monitoring, path maintenance, tree nursery activities, helping with community events and ceilidhs.

Isle of Rum Community Trust	2008 Community owned Company Limited by Guarantee & Registered Scottish Charity - Highland (Very Remote Rural area)	1. To manage community land and associated assets for the benefit of the Community and the public in general as an important part of the protection and sustainable development of Scotland's natural environment. 2. To advance the education of the Community about its environment, culture and/or history. 3. To promote for the public benefit rural regeneration, following principles of sustainable development in areas of social and economic deprivation within the Community by the provision of housing for those who are in conditions of need and the improvement of housing in the public sector or in charitable ownership provided that such power shall not extend to relieving any local authorities or other bodies of a statutory duty to provide or improve housing.	Woodland restoration and the management of deer.
Kilfinan Community Forest Company	2007 Community owned (purchased from the Forestry Commission) Company Limited by Guarantee & Registered Scottish Charity 561 ha (lower and upper Acharossan forest) Argyll & Bute (Very Remote Rural area)	1. To manage community land and associated assets for the benefit of the Community and the public in general as an important part of the protection and sustainable development of Scotland's natural environment, where "sustainable development' means development which meets the needs of the present without compromising the ability of future generations to meet their own needs. 2. To promote, for the public benefit, rural regeneration, following principles of sustainable development, in areas of social and economic deprivation within the Community. 3. To advance the education of the Community about its environment, culture and/or history. 4. Such other purposes ancillary thereto as may be necessary or desirable for the furtherance of the foregoing objects.	Managing the land, and the felling and replanting of the woodlands. Delivering a variety of additional benefits to the Kilfinan community, including the development of recreational facilities, further employment opportunities and the provision of genuinely affordable housing. Working closely with the local primary school, running a summer club, promoting a variety of training courses and hosting other educational events. Providing affordable workshop space for a local business and plan to provide further opportunities for local businesses. Running a community composting facility on site. They set up a community allotment and polytunnel on the site to provide space for people to grow their own food. Volunteer activities include clearing invasive species, planting tree and creating and maintaining paths, bridges and playpark as well as specific projects such as taking part in the archaeology survey of the site and building the roundhouse. The path network allows easier access to the forest for walkers, bikes and horses. KCFC leases land to the Kilfinan Allotment Group.

			The current plan for the forest includes a woodland play park, low impact classroom, heated poly tunnel and workshops. Facilities include timber processing yard, firewood processing and hydroelectric scheme, all of which generate income for the forest.
Kilsture Forest Community Group	2020 In process of acquisition by the community Scottish Charitable Incorporated Organisation Dumfries & Galloway (Very Remote Rural area)	The organisation's purposes are the: 1. advancement of education about Kilsture Forest; 2. promotion of health through activities in Kilsture Forest; 3. advancement of environmental protection in promoting the wellbeing and sustainability of Kilsture Forest; 4. promotion of arts, heritage, culture and science ; 5. the provision of recreational facilities or activities in Kilsture Forest.	-
Kingsburgh Forest Trust	2002 Community owned Company Limited by Guarantee & Registered Scottish Charity 178 ha Highland (Very Remote Rural area)	1. To promote the conservation, restoration and improvement, for the public benefit, of the woodlands in the geographic area of Kingsburgh, Isle of Skye as an important part of Scotland's natural heritage; 2. To advance the education of the public generally but particularly the education of young people concerning the local wildlife, conservation and preservation and the natural and cultural heritage of the area; 3. To provide, in the interests of social welfare, facilities for recreation and other leisure time occupations available to the public at large with a view to improving their conditions of life; 4. To provide relief for persons suffering from mental and/or physical disability, illness or impairment through the provision of recreational and other activities; 5. To promote and/or provide training in various skills, particularly such skills as will assist residents in Kingsburgh in obtaining paid employment; 6. To promote, establish and operate other schemes of a charitable nature for the benefit of the community within Kingsburgh; 7. To relieve poverty among the residents of Kings burgh;	-

		8. To promote trade and industry for the benefit of the general public.	
Kingussie Community Development Company	2006 Community owned Company Limited by Guarantee & Registered Scottish Charity 2.6 ha Highland (Remote Rural area)	To carry out and promote activities for the benefit of the community of the town of Kingussie, provide recreational facilities and advance environmental protection and improvement of the neighbourhood.	Running a micro-hydro scheme. Improving infrastructure to develop cycling and provide a safer environment for everyone in the town. Maintaining paths that extend beyond the community woods. The key objective for the wood is to maintain it as near native as practically possible. This includes removing snowberry and Spiraea (Spiraea × pseudosalicifolia 'Triumphans') as they spill over from gardens; talking with neighbours to discourage them from tipping garden waste into the wood and removing sycamore. If ash disappears from the wood, the group are content that there are sufficient other native species to fill the gap.
Kinlochleven Community Trust	1997 Community owned Company Limited by Guarantee & Registered Scottish Charity - Highland (Very Remote Rural area)	1. To manage community land and associated assets for the benefit of the Community and the public in general following principles of sustainable development, where sustainable development means development which meets the needs of the present without compromising the ability of future generations to meet their own needs, and by such management relieve poverty in the Community area, and to encourage economic regeneration. 2. To provide, or assist in providing, recreational facilities, and/or organising recreational activities, which will be available to members of the public at large with the object of improving the conditions of life of the Community and following principles of sustainable development. 3. To advance community development, including urban or rural regeneration, following principles of sustainable development and to encourage and promote training and the provision of educational facilities and courses, skills development and employment training. 4. To advance the education of the Community about its environment, culture, heritage and/or history. 5. To advance environmental protection or improvement including preservation, and conservation of the natural environment, the promotion of sustainable	Developing green spaces in the village, increasing aesthetics, biodiversity, community engagement and sustainability. Activities include Tree management and planting, Fairy Walk, Wild Meadow areas, Secret Garden and food growing, Riverside Improvements, Path improvement, Wildlife areas, and Invasive species control. Maintaining and improving the path network, supporting the volunteer workforce to continue, consider firewood initiatives, provide educational interpretation, and improve outdoor seating. Running a Community Food recycling initiative – which provide a food hub for residents, visitors, organisations and businesses to recycle unwanted food items for the community to use. This project aims to reduce food waste, promote recycling and healthy eating and ultimately to reduce food poverty. Currently developing a Touring Park with designated parking spaces for motor homes, caravans and camper vans in the village to park overnight. They will include grey and black waste disposal points, litter and recycling facilities, electric plug ins, water taps, showers, 24-hour toilets, a washing up station and fire pits. The Community Toilets will also be upgraded with facilities and have several spaces to be used as an over spill for

		development, the maintenance, improvement or provision of environmental amenities for the community and/or the preservation of buildings or sites of architectural, historic or other importance to the community.	the main site. There will also be a small area available for several tents should people enter the village with nowhere to pitch their tent. Charges will be implemented for the use of electricity and the showers. The rest of the facilities will be free to use for all. The community also intend to implement an E-bikes service and a Multi Activity Café.
Kirkcowan Community Development Trust	2015 Community owned Company Limited by Guarantee - Dumfries and Galloway (Remote Rural area)	The aim of the Trust is to benefit the community of Kirkcowan with the following purposes: 1. To manage community land and associated assets for the benefit of the Community and the public in general. 2. To provide, or assist in the providing, recreational facilities and/or organising recreational activities, which will be available to member of the Community and public at large with the object of improving the conditions of life in the Community. 3. To advance community development, including urban or rural regeneration within the Community. 4. To advance the education of the Community about its environment culture, heritage and/or history. 5. To advance environmental protection or improvement including preservation, sustainable development and conservation of the natural environment, the maintenance, improvement or provision of environmental amenities for the Community and/or the preservation of buildings or sites of architectural, historic or other importance to the community. 5. To promote, establish, operate and/or support other schemes and projects which are in furtherance of charitable purposes for the benefit of the Community.	The management of Jenna Morra Wood includes the drainage of paths, replacement of gates, restoration of the drystone wall (to prevent livestock from entering the woods), creation of additional paths, structures and signs. Previous small scale projects include installation of defibrillator in Kirkcowan Village, small repairs to village buildings, establishing planters in and around the village, speeding awareness signs on roads, cleaning of public toilets, equipment and services to Primary school & Nursery, among others. The community action plan 2020-2025 envision the following activities: The development of the Village Hall (including Community Transfer); The creation and maintenance of a path network; The creation of a Forest Management Plan and Access & Recreation plan for the Community Woodland; The improvement of the community Winter Fuel & Energy Efficiency measures; The design and implementation of a play park; The development of a Youth club with Multi-Use Games Area.
Knocknagael Limited	2020 In process of acquisition by the community Company Limited by Guarantee and have applied to OSCR for charitable status -	To create, maintain and manage food growing activities including allotments for the benefit of the community.	Plans under consideration include a community garden, allotments, an orchard, food growing areas, and outdoor walking paths.

	Highland (Other Urban area)		
Knoydart Forest Trust	1999 Community owned (purchased from private landowner) Company Limited by Guarantee & Registered Scottish Charity 983 ha Highland (Very Remote Rural area)	To conserve, regenerate and promote the restoration of native and other woodlands in the geographical region of Knoydart as an important part of Scotland's natural environment for the benefit of the public. More specific aims include: 1. To link woodland habitats across the peninsula from Loch Nevis to Loch Hourn, creating stepping stones for plants and wildlife; 2. To enhance biodiversity, habitat resilience and mitigate against climate change through woodland creation and appropriate management; 3. To promote, develop and sustain local employment and economic activity; 4. To manage the forest by enhancing and expanding the native woodland and restructuring and diversifying the non-native woodland; 5. To create a locally useful timber resource; 6. To encourage public access and enjoyment of the woodlands.	Their work is guided by 20 year Woodland Management and Forest Plans which cover forestry, and social and economic activities. The Forest Plan focus is on felling and replanting, but it also includes woodland management activities such as public access, invasive species management and native woodlands. They have been restructuring Iverie woods by felling conifers planted in the 60/70s and replanting with mixtures of trees that will provide useful quality timber for the future and greater biodiversity. Harvested areas with better soil and access are replanted with species that will be useful for timber in the future such as oak and western red cedar. Other areas are replanted with species that have a high habitat value such as Scots pine, birch and rowan. Since 1999 they have planted over 600,000 trees, helping to create over 300 hectares of new woodland. They have also cleared 55 hecatres of dense rhodies (Rhododedron ponticum) over an area of 250 hectares on community owned land and are working on a citizen science initiative to inform the community and public about the impact of rhodies and the importance of biodiversity and get involved in identifying and reporting any rhodies spotted. Other forestry activities include Native Woodland Regeneration, Thinning, and Deadwood Management. They also built and maintain paths & tracks, 2 mountain bike tracks, shelters, benches & sculptures in Inverie Woods. They work in partnership with the Knoydart Foundation Ranger Service who provide regular guided walks in the woods and with West Knoydart Deer Management Group who carry out an annual deer count and habitat impact monitoring surveys, in order to keep track of the deer population density and its impact on the environment. By making the most of the woods they employ local people and invest money back into the woodland and

			local economy. With Wood Knoydart, their trading subsidiary, they add value to their timber to produce and sell milled timber, firewood, wood products and timber buildings. This helps the community and woodlands to be more resilient. Their products include firewood, milled timber, timber buildings and wood products.
Laggan Forest Trust	1998 Community owned (purchased from the Forestry Commission) Company Limited by Guarantee & Registered Scottish Charity 19 ha (owned) 1400 ha (partnership management) Highland (Very Remote Rural area)	1. To advance environmental protection or improvement, including: a) preservation, sustainable development and conservation of the natural environment and any related archaeological heritage b) maintenance, improvement or provision of environmental amenities, for the Community and the public. 2. To advance citizenship or community development, including rural regeneration. 3. To provide (or advance the accessibility of) recreational facilities; and/or organise recreational activities available to members of the Community and the public, with the object of improving the conditions of life for said Community and public.	Developing, improving, and running the Laggan Wolftrax mountain biking centre. The facility comprises public toilets and showers, a café, a bike shop and the LFT office. Developing, improving, and maintaining paths and trails, and working with other communities to link communities via walking and cycle paths. Organising numerous educational activities in the forest, including nature study, music and theatre. Establishing a small timber trading and trail maintenance project, the creation of a wood-fuel business and the provision of "uplift" facilities for the mountain bike trails. Supporting recreational activities as well as the preservation, protection and management of the forest environment. Providing an eBike service. Running an Active Schools Programme with Gergask Primary School at Laggan to form proficient riders, providing an outstanding experience for the students.
Laide and Aultbea Community Woodland	2003 - Company Limited by Guarantee & Registered Scottish Charity - Highland (Very Remote Rural area)	For the benefit of the residents of the Gairloch Ward and the wider public, 1. To conserve, regenerate and promote woodlands in the said area, 2. To advance the education of the public and the local community about relevant countryside matters.	-
Lochcarron Community Development Company	2009 - Company Limited by Guarantee & Registered Scottish Charity -	1. To manage community land and associated assets for the benefit of the Community and the public in general as an important part of the protection and sustainable development of Scotland's natural environment where 'sustainable development' means development which	-

	Highland (Very Remote Rural area)	meets the needs of the present without compromising the ability of future generations to meet their own needs. 2. To advance the education of the Community about its environment, culture and/or history. 3. To advance the arts, heritage, culture or science.	
Maryculter Woodlands Trust	2013 - Scottish Charitable Incorporated Organisation - Aberdeenshire (Accessible Rural area)	1. To advance environmental protection including preservation, sustainable development, native habitat restoration and conservation of the natural environment in the community woodlands in the Parish of Maryculter, Aberdeenshire ("the Maryculter woodlands") for the benefit of the community and the public in general. 2. To manage community land and associated assets in a sustainable manner for the benefit of the Community and the public in general. Such management will follow the principles of sustainable development (where sustainable development means development which meets the needs of the present without compromising the ability of future generations to meet their own needs). 3. To advance the education of the wider Community (including those attending local schools, universities, local clubs and organisations) about the natural history, environment, archaeological and cultural heritage of the Maryculter woodlands. Such purpose could be met by activities including, but not limited to, arranging and conducting research, preparation and organisation of lectures, exhibitions, seminars and guided tours. 4. To promote, develop and manage projects and initiatives for recreation and leisure in the Maryculter woodlands with the object of improving the conditions of life for the inhabitants of the Community.	-
Menstrie Community Woodland	- Owned by Menstrie Community Council Intend to apply for charitable status 11.1 ha Clackmannanshire (Accessible Rural area)	1. The provision of recreational facilities, or the organisation of recreational activities, with the object of improving the conditions of life for the persons for whom the facilities or activities are primarily intended. 2. To ensure that Menstrie is a vibrant, active community, to support the health and wellbeing of the village and improve the lives and opportunities of members of the community.	-

		But only to the extent that the above purposes are consistent with furthering the achievement of sustainable development.	
Mid Deeside Community Trust	1997 Lease from Dinnet Estates Company Limited by Guarantee & Registered Scottish Charity 4 ha Aberdeenshire (Remote Small Town)	To further the education of the public in the geography, history, natural history and architecture of Aboyne and District which area shall hereinafter be referred to as "area of Benefit" and to secure the preservation, protection, development and improvement of features of historic or public interest in the area of benefit. More specific aims include: 1. To maintain the Lady Wood as a native oak wood; 2. To maintain the diverse structure and wildlife habitat of the woodland; 3. To maintain the amenity of the wood and the recreational value of the path network; 4. To provide an educational resource for the schools and the community.	Providing access to the wood for people of all abilities by maintaining paths and removing litter. Improving the quality of experience of the visiting public by the provision of interpretative information on the natural history of the wood. Removing non-native trees to provide space and light for the natural regeneration of native species. Removing dangerous trees or branches in the interest of public safety (the larger pieces of timber will be left on site to provide dead wood habitat for invertebrates, the smaller branches and brushwood will be chipped on site and the chips used to surface some of the minor paths). Replacing dead and fallen oak trees with oak seedlings of local genetic origin – by organising the collection of acorns from local native oak trees. Maintaining habitats for wildlife, including 15-20% of open ground. Encouraging the natural regeneration of native trees and scrubs in suitable gaps in the wood. Recording/monitoring tree and scrub regeneration and the impact of management activities. Providing nesting boxes for local birds. Involving the schools and the community in all woodland management activities.
Moffat Community Woodlands	2015 Community owned Scottish Charitable Incorporated Organisation 40 ha Dumfries & Galloway (Remote Rural area)	1. The advancement of community development, including the advancement of rural regeneration. 2. The advancement of education. 3. The advancement of citizenship. 4. The advancement of environmental protection or improvement. 5. The provision of recreational facilities, or the organisation of recreational activities, with the object of improving the conditions of life for the persons for whom the facilities or activities are primarily intended.	Researching/recording the local natural history. Planting a mixed broadleaved woodland. Consulting and engaging the community. Creating a natural play area, picnic tables and wooden sculptures on an access gate. Installing benches (including a bench for wheelchair users). Creating and maintaining paths and trails (including a Family Cycle Trails). There are plans to create a shelter / hang out / outdoor learning area and promote forest school days.
	2002 -	The company's main purpose is consistent with furthering the achievement of sustainable development.	-

Morvern Community Woodlands	Company Limited by Guarantee & Registered Scottish Charity - Argyll & Bute (Very Remote Rural area)	The company's purposes are: the advancement of environmental protection or improvement; the advancement of citizenship or community development; the provision of recreational facilities or the organisation of recreational activities. More specific aims include: 1. To bring local woodlands back into management for community benefit; 2. To run public events and training courses; 3. To provide woodland education and recreation opportunities; 4. To promote woodland and timber-related skills within the community.	
Mount Vernon Community Hall	- - Unincorporated association - Glasgow City (Large Urban area)	1. To promote the benefit of the inhabitants of the local community and its environs irrespective of race, religion, politics or age, by associating the local authorities, voluntary organisations and inhabitants in a common effort to advance education, to promote good citizenship and to provide facilities in the interests of social welfare for recreation and leisure-time occupation with the object of improving the conditions of life for the said inhabitants. 2. To secure the establishment of a community centre and to cooperate with Glasgow District Council in the maintenance and management of the centre for activities promoted by the centre in furtherance of the above aims and objectives or any of them.	Creating/maintaing a Community Garden. Installing a story telling circle and 2 children's Adventure Playground, a train activity area and a train shaped calming barrier from the car park area from the stairs leading to the community woodland. Installing Gruffalo characters sculptures, creating a sculpture trail. Planting a nature trail within the existing Community woodland area located behind Mount Vernon Community Hall. Linking the community nature trail with the existing paths within Mount Vernon Park, to create a natural loop and a robust safe off road active travel link, the path also flow's through their Community Garden growing space.
Muddy Adventures	 Glasgow City (Large Urban area)	Engaging with the local community to deliver programs within the area of Bellshill. Along with providing support and educational experiences to Educational establishments.	Regularly hosting events aimed at all the family. All ages are welcome. Providing a beautiful woodland setting that enhances fun and learning for all ages. Promoting the benefits of people getting outdoors and enjoying nature.
Mull and Iona Community Trust	1997 Community owned Company Limited by Guarantee & Registered Scottish Charity 200 ha	1. The advancement of community development (including the advancement of rural regeneration) within the Community. 2. To manage community land and associated assets for the benefit of the Community and the public in general.	Promoting a 150 year vision of ecological restoration of the land. Felling the commercial timber crop (of mainly Sitka Spruce and Lodgepole Pine), producing revenue for the community.

	Argyll & Bute (Very Remote Rural area)	3. To provide, or assist in providing, recreational facilities, and/or organising recreational activities, which will be available to members of the Community and public at large with the object of improving the conditions of life of the Community. 4. To advance the education of the Community. 5. To advance environmental protection or improvement including preservation, sustainable development and conservation of the natural environment, the maintenance, improvement or provision of environmental amenities for the Community and/or the preservation of buildings or sites of architectural, historic or other importance to the Community. 6. The prevention and relief of poverty. 7. The relief of those in need by reason of age, ill-health, disability, financial hardship or other disadvantage. 8. The provision of housing in the Community for those who are in conditions of need and/or the provision of land within the Community on which housing for those in conditions of need will be constructed, provided that this Purpose shall not extend to relieving any local authorities or other bodies of a statutory duty to provide housing. 9. Any other purpose that may reasonably regarded as analogous to any of the preceding purposes. But only to the extent that the above purposes are consistent with furthering the achievement of sustainable development.	Commitment to replant with broadleaves, with some Scots Pine and Norway Spruce, and to avoid the use of pesticides like neonicotinoids and herbicides like glyphosate. Controlling/fencing deer out. Other activities and facilities include: Countryside Ranger Services MESS (Mull and Iona Environmentally Sensitive Solutions), including Island Castaways Charity shops. An Roth Community Enterprise Centre, providing office, meeting and training space. Self Storage Nonhebel Park Ulva Ferry Regeneration - affordable housing, pontoon and community transport. Fionnphort to Creich Hall Path Community Fridge Promoting recycling and waste reduction Childcare Project Pontoon Development Ulva Ferry Community Transport Tobermory Lighthouse Path repair Garmony Hydro Scheme Mull Musical Minds Defibrillator Network
Nith Valley Leaf Trust	2009 - Company Limited by Guarantee & Registered Scottish Charity -	1. To identify the needs and requirements for a sustainable community. 2. To manage community land and assets for the benefit of the community. 3. To advance community development including urban and rural regeneration.	Developing a community garden/orchard. Installing a polytunnel, outdoor classroom, wheelchair accessible paths, tools, raised beds and fruit trees. 'Closeburn Growing Skills' aims to organise workshops and recreational sessions in the garden to give people of all ages confidence to learn various horticultural skills

	Dumfries & Galloway (Accessible Rural area)	4. To assist in providing recreational activities and facilities. 5. To improve living and environmental conditions for a healthier lifestyle. 6. To increase awareness to the local community about the environment, culture, heritage and history. 7. To advance environmental protection and preservation of the natural environment.	as well as generate some local organic edible produce for the community. Establishing Scotland's first community-owned family-sized homes built to Passivhaus Standard for affordable rent. The homes were designed to address two key concerns raised within the Closeburn Action Plan survey in 2016. These issues were the lack of family-sized housing for affordable rent and fuel poverty in the area. The Nith Valley Leaf Trust have initiated the process of obtaining ownership of the school playing field in Closeburn.
North Harris Trust	2002 Community owned Company Limited by Guarantee & Registered Scottish Charity 18 ha (restoring) Western Isles (Very Remote Rural area)	To achieve the regeneration and development of the North Harris community by managing the North Harris Estate as an area of outstanding wild and rugged beauty, through local participation and working with other partners where appropriate, all for the benefit of the local community and the wider public. The Trust aims to increase employment opportunities, address local housing needs, and protect and enhance North Harris's wonderful cultural and natural heritage. More specific aims include: 1. To formulate a strategy for community development with full participation of the community; 2. To manage, conserve and develop the assets of the estate in a sustainable manner; 3. To keep North Harris wild and beautiful by safeguarding and enhancing the environment and managing this in ways that benefit the local community and the general public; 4. To generate awareness, understanding and appreciation of the cultural heritage of North Harris including the Gaelic language; 5. To facilitate appropriate community development by providing land and other resources for local housing, business and community needs; 6. To encourage sustainable crofting development and regeneration; 7. To facilitate the maintenance and development of aquaculture enterprise and employment in a sustainable manner appropriate to the local area; 8. To facilitate the enjoyment of the natural heritage by enabling open responsible access for	In seeking to achieve the economic, social and environmental regeneration of North Harris the Trust is involved in a comprehensive range of activities and initiatives, including: Conserving and enhancing the natural heritage, restoring native woodland (6 ha at Gleann Mhiabhaig and 12 ha at Gleann Langadal were planted), monitoring upland vegetation communities, controlling invasive species and the deer population. Encouraging open access and enjoyment of the environment for locals and visitors alike, restoring and maintaining the existing paths as well as providing interpretation and a guided walks programme.

		all; 9. To facilitate the creation of native woodlands in appropriate areas; 10. To work with statutory bodies to improve local infrastructure and services.	
North Sutherland Community Forest Trust	2002 - Company Limited by Guarantee & Registered Scottish Charity - Highland (Very Remote Rural area)	1. To promote for the public benefit rural regeneration, following principle of sustainable development, where 'sustainable development' means development which meets the needs of the present without compromising the ability of future generations to meet their own needs, in areas of social and economic deprivation within the community. 2. To advance the education of the community about its environment, culture and/or history.	-
North West Mull Community Woodland Company	2006 Community owned (purchased from the Forestry Commission) Company Limited by Guarantee & Registered Scottish Charity 675 ha (Langamull and West Ardhu) Argyll & Bute (Very Remote Rural area)	To manage community land and associated assets for the benefit of the Community and the public in general as an important part of the protection and sustainable development of Scotland's natural environment, where "sustainable development" means development which meets the needs of the present without compromising the ability of future generations to meet their own needs. To promote, for the public benefit, rural regeneration, following principles of sustainable development, in areas of social and economic deprivation within the Community by all or any of the following means: 1. the provision of financial assistance, technical assistance, or business advice or consultancy in order to provide training and employment opportunities for unemployed people in cases of financial or other charitable need through help:- (i) in setting up their own business, or (ii) to existing businesses; 2. the creation of training and employment opportunities by the provision of workspace, buildings and/or land for use on favourable terms; 3. the provision of housing for those who are in conditions of need and the improvement of housing in the public sector or in charitable ownership provided that such power shall not extend to relieving any local authorities or other bodies of a statutory duty to provide or improve housing; 4. the maintenance, improvement or provision of public amenities; 5. the preservation of buildings or sites of historic or architectural importance; 6. the provision or assistance in the provision of	To date the Company have created a 16.5km haul route to bring landlocked timber to market, built a 95kw micro hydro scheme, created 9 Forest Crofts and set up Island Woodfuels, producing all the island's woodchip and running a firewood business. Focus now is on forest design planning and replant.

		recreational facilities for the public at large and/or those who, by reasons of their youth, age, infirmity or disablement, poverty or social and economic circumstances, have need of such facilities; maximum text reached, further full information can be obtained directly from the charity.	
Old Luce Development Trust	2016 - Company Limited by Guarantee & Registered Scottish Charity - Dumfries & Galloway	1. The advancement of community development, including the advancement of rural regeneration. 2. The provision of recreational facilities, or the organisation of recreational activities, with the object of improving the conditions of life for the persons for whom facilities or activities are primarily intended. 3. The advancement of citizenship, as a sub-set within the wider charitable purpose of the advancement of community development. 4. The advancement of environmental protection or environmental improvements. 5. The advancement of the arts, heritage, culture or sciences.	Their projects include: Surgery (community consultation), improvements to The Village Square, Woodland Management (The Glen), Brambles, Community Asset Transfers (application/process), management of Glenluce Public Hall, the creation of Dunragit to Glenluce Link Path, the creation of Dunragit Community Hub, improvements to Back Burn Footpath and Bridge, Christmas Lights, and the management of the Community Website.
Organic Growers of Bothwell	2010 - - - Glasgow City (Large Urban area)	-	Producing food (fruits and vegetables), cultivating wildflowers, beekeeping (honey bees), creating attractive habitat for bees, butterflies and moths, organising community events, and promoting reducing, reusing and recycling activities.
Penney's Community Woodland	2009 - - 5.55 acres Perth and Kinross (Accessible Rural area)	Duncan Penney left specific instructions to his trustees that the land was to be used as a community woodland as a memorial for the Penney family.	Planting native species sourced from Scotland; oak, birch, rowan, holly, Scots Pine and crab apple. Other activities include raising money for the Woodland, re-staking fallen/leaning trees after winter storms, fencing trees, Primary School pupils constructing 3 bug hotels, bench and signage installation.
Polbeth and West Calder Community Garden SCIO	2013 Lease from West Lothian Council Scottish Charitable Incorporated Organisation - West Lothian	1. To advance; environmental protection and improvement by promoting the benefits of and demonstrating a range of good environmental and horticultural practices such as organic growing, forest and wildlife gardening, composting, and through reducing, re-using and recycling of resources. 2. To advance; education particularly in horticultural and ecological matters, by encouraging and teaching a	-

		range of outdoor skills and pursuits, promoting the benefits of the natural environment and living more sustainably. 4. To advance; health and well-being through improved access to an outdoor environment; promoting an active lifestyle through gardening and other outdoor leisure pursuits; promoting the benefits of growing and eating seasonal, nutritious, affordable food; volunteering and social interaction.	
Portmoak Community Woodland	1996 Community owned - 43.59 ha Perth and Kinross (Accessible Rural Area)	1. To improve the diversity of age and species of tree by regeneration of birch, alder and other species more suited to the ground conditions. 2. To restore the raised peat moss, a rare ecosystem, to its original state. 3. To improve public access by upgrading paths and establishing all-abilities access. 4. To facilitate community involvement.	The woodland is managed by the Woodland Trust and by the local community via a steering group. Since 1996, entrance and path-works, including an all-abilities loop, have upgraded access to the wood. In 1998, a second woodland, Kilmagad Wood, was purchased by the community in association with the Woodland Trust. This is linked to Portmoak Moss by a circular walking route, the Tetley Trail. In 2004 and 2005 major felling of the old commercial plantation on the raised moss was completed. Damming of the drainage ditches has raised the water table. In 2008 a third area of land was purchased. This is lower on the hillside than Kilmagad Wood, running from the road up to Kilmagad. For many years it has provided rough grazing - our plan is to plant it with trees and include paths and viewing areas in it, leading the way higher up the hill. In 2009 and 2010 they got on with planting the lower hillside site with trees and shrubs - all natural species, with the involvement of local schools and several community groups. In 2011 they planted out a community orchard with many species of apples, pears, cherries and plums. As part of the planting they also ran a course on pruning fruit trees which was well attended by many local people. In 2012 they organised a Boginar which brought together a number of experts in various aspects of the restoration, management and development of bogs and mosses will gather to discuss options for Portmoak Moss. Topics include biodiversity, habitat, ecology,

			hydrology and community engagement. We also had a Christmas tree event which was well attended by the local community. In 2013 a major result from the Boginar was a significant grant from SNH to raise the water table further by improved damming and also to deal with birch regeneration. They also ran a course on fruit tree pruning in our community orchard, held a butterfly day with Butterfly Conservation Scotalnd and a lantern event with the Woodland Trust. They also had another Christmas tree event.
Roots of Arran Community Woodland	2002 - Unincorporated association 30 ha North Ayrshire (Very Remote Rural area)	-	Tasks include footpath creation and maintenance, tree-planting and management, as well as rhody clearance. They have also planted a community orchard, created a pond, built a wooden shelter, and organise Forest School sessions and other community events.
Sleat Community Trust	2003 Community owned (purchased from the Forestry Commission) Company Limited by Guarantee & Registered Scottish Charity 400 ha Highland (Other Urban area)	1. To communicate clearly and regularly with our membership and the community. 2. To identify the key developments which will make Sleat an even better place to live. 3. To maximise the community benefit from renewal energy products, including forestry and wind-power 4. To promote the further development of tourism in Sleat and preserving the natural environment. 5. To secure the maximum amount of external funding to achieve some or all of the business plan objectives, avoiding any conflicts with the traditional roles of the Highland and Community Councils. 6. To make use of all public/private association resources, for advice, support, funding and specialist expertise	The achievements of Sleat Community Trust vary from asset ownership to developing renewable energy sources. In 2007, The trust purchased its first asset, The Skye Ferry Filling Station, and established the Sleat Community Trading Company to manage this. Since then it has gone on to develop the site, with a petrol station and on-site shop, which now includes the local Post Office, as well as providing a tourist information facility. A successful garage business including the provision of MOT services has been leased to a local proprietor, and the Trust has refurbished an adjoining property to establish a 'headquarters' providing a management hub for all the Trust's activities. Sleat Renewables Limited (SRL) was established in 2007 with the aim of taking forward a number of renewable energy projects with the aim to benefit the community. The current principal project of SRL is the commercial development of the Tormore Forest, a 400ha (almost 1000 acres) mature forest purchased from the Forestry Commission in 2011, with significant

			financial support from a number of sources. Key projects include: 1. A five-year plan to harvest the timber, construct related infrastructure facilities, develop related commercial business opportunities and create leisure amenities; 2. Assessment of options for a community wind-farm; and 3. Continuing support of carbon reduction opportunities and efficiency in energy.
South Loch Awe-side Community Company	2014 - Company Limited by Guarantee - - Argyll and Bute (Very Remote Rural area)	Aim of making South Loch Awe-side a better place to live and work by developing projects that strengthen the local community. Projects should align with national and local development plans which focus on generating a thriving economy, growing supporting infrastructure, education and opportunities, people living active and healthy lives, and the development of safer and stronger communities ie. local job creation, increase in connectivity, service provision etc.	Ardchonnel Wood – Meeting has been organised with the Forestry Commission about possible community purchase of Ardchonnel Wood. Other ongoing Projects include: Ardchonnel School (purchase), developing a Broadband solution for a wide area including Glenorchy, Kilchrenan and Dunadd, and Prescription Delivery.
South West Mull and Iona Development	2014 Community owned (purchased from the Forestry Commission) Company Limited by Guarantee & Registered Scottish Charity 790 ha Argyll & Bute (Very Remote Rural area)	1. Manage the forest to be financially sustainable in perpetuity. 2. Enhance biodiversity, landscape quality, heritage features and forest diversity. 3. Increase access and recreation. More specific aims include: 1. Forestry: 1.1 Adopt the best forest management techniques to achieve a financially sustainable woodland; 1.2 Plan carefully to achieve a sustainable programme of harvesting and re-stocking; 1.3 Maximise our financial return on the mature timber; 1.4 Try to minimise the impact of timber transport; 1.5 Investigate opportunities for new woodland-based businesses; for example, timber processing, forest crofts, holiday accommodation, visitor provision and green burials; 1.6 Explore opportunities for producing renewable energy for use by woodland-based businesses and the wider community; 1.7 Maintain sustainable numbers of red deer and other grazing animals, to minimise damage to new planting, to protect existing deciduous trees and to enable natural regeneration of native woodland.	Felling mature conifers to maximise their commercial value and prevent loss through wind-throw. Maintaining zones of commercial forest on the upper areas on either side of Glen Seilisdeir, while creating an 'amenity' zone through the centre. This restructuring allows a move from a 70% v 30% commercial v amenity and nature conservation split, to a 57% v 43% split. The amenity zone will comprise areas of mixed broadleaves and conifers that will generate income from forestry management and will encompass visitor facilities and other activities and projects. Establishing and maintaining a Community Garden.

		2. Access, Recreation, Education & Wellbeing: 2.1 Improve access, recreation, education and wellbeing uses of the forest for the local community and visitors, whilst avoiding conflict with forest management and wildlife; 2.2 Provide additional access routes within the forest and create links to the wider countryside for walkers, cyclists and horse riders; 2.3 Develop interpretation for the wildlife, history and forestry of the site and facilities for visitors to enhance the value of their visit; 2.4 Provide educational facilities for children (Forest School) and adults; 2.5 Develop opportunities for art and craft projects; 2.6 Maintain and enhance the landscape value of the site. 3. Biodiversity and Water Quality: 3.1 Maintain and enhance the nature conservation value of the forest to sustain a balanced and dynamic ecosystem; 3.2 Identify significant wildlife species within the forest then monitor populations and manage their habitats; 3.3 Protect white-tailed eagles and other legally protected wildlife species; 3.4 Safeguard the quality of water flowing through the site. 4. Historic Features: 4.1 Endeavour to protect historic features and look into the possibility of carrying out archaeological investigation, restoration and provision of interpretation; 4.2 Work in partnership with local organisations, such as Pennyghael in the Past, to achieve this.	
Stewarton Woodlands Action Trust	2004 - Scottish Charitable Incorporated Organisation - East Ayrshire (Other Urban area)	1. To conserve, regenerate and promote the restoration of predominantly native woodlands in the geographical area of Stewarton as an important part of Scotland's native environment for the benefit of the public. 2. To advance education for the public benefit concerning the natural environment of the area of Stewarton.	Maintaining paths and steps. Removing trees and branches that, as a result of rot or weather damage, could pose a hazard to walkers. Planting of appropriate trees, flowering plants and other vegetation. Litter-picking. Helping to manage non-native, invasive plant species (NNIS) and prevent their spread. Promoting awareness of the local woods and natural environment. Maintaining drainage channels and ditches.

			Installing and updating signage, and a storytelling chair and associated 'toadstool' seats. Making bird boxes for installation in and around the woods and for sale to raise funds for the charity.
Strathfillan Community Development Trust	1997 Community owned (purchased from the Forestry Commission) Scottish Charitable Incorporated Organisation 60 ha (Tyndrum Community Woodland) Stirling (Very Remote Rural area)	1. The advancement of sustainable community development through working with partner organisations to develop Community Action Plans for the Strathfillan area, and to implement community projects and improvements identified within the plan. 2. The provision of recreational facilities which offer opportunities for social interaction for members of the general public, particularly (but not exclusively) for residents of the Strathfillan area. 3. The advancement of environmental protection and improvement through maintaining community woodland and open spaces for the enjoyment of the general public and by encouraging volunteer participation in environmental projects within the Strathfillan area. More specific aims include: 1. To develop and deliver our Community Action and Place Plans; 2. To provide affordable housing to local people; 3. To manage and develop public land and woodland for recreation and the environment; 4. To support better community health and well-being; 5. To support and promote social and economic development; 6. To work constructively in partnership with other organizations.	Planting areas with native species as part of the Millennium Forest for Scotland, which aimed to replant areas of the original Caledonian Pine Forest. Installing a forest classroom, Gruffalo Trail, interpretation boards and picnic areas. Upgrading local paths and a viewpoint in Crianlarich Community Woodland. Other projects include: a Community Garden, Strathfillan fishings, Crianlarich Houses renovation, Lower Station Yard Redevelopment Project, new equipment installation at Crianlarich Play Park, the creation of a Bike Skills Park, and the promotion of community events/activities, such as Canoeing with Active Stirling, Deer stalking and estate management with Glen Falloch Estate's stalker, Wood crafts with Green Aspirations, Pot making with a local ceramicist, Bushcraft with a Ranger from the Loch Lomond and Trossachs National Park, Shoreline ecology - a visit to the Ocean Centre and beach in Oban, Seniors Christmas Party, The Strathfillan Lunch Club annual outing, Primary School Parent Partnership for the P4-7s Ski Trip to Glencoe, and Community Place Plan Steering Group Open Days.
Strathkinness Community Trust	2013 - Scottish Charitable Incorporated Organisation - Fife (Accessible Rural area)	1. To ensure the activities and events trustees organise are open to all and help to promote a sense of well-being and community within Strathkinness. 2. To provide villagers of all ages and nearby communities with the opportunity to enjoy the range of activities we provide either by helping to develop and maintain them or just to view and support them in any way they wish. 3. To cultivate and maintain the Trust locations by methods that are to the benefit of biodiversity and wildlife and help in the battle against Climate Change.	The Trust oversees several activities around the village of Strathkinness; the Community Garden, the Community Orchard, Bishop's Wood, the Village Green, the 201 Telephone Box Gallery and maintains containers and various plots of land around Strathkinness. The vast majority of work is carried out by volunteers with materials and equipment paid for by members' subscriptions and funding from St. Andrews Community Trust and Fife Council.

		4. To encourage the use of our locations for education of all ages both of groups and individuals. 5. To ensure the Trust is financially viable and that locations and activities are organised with the Health and Safety of attendees and the general public in mind. 6. To communicate regularly to members usually by email and by holding an AGM.	
Strathnairn Community Woodlands	2002 Community owned (purchased from the Forestry Commission) Company Limited by Guarantee & Registered Scottish Charity School Wood (12.14 ha) and Milton Wood (28 ha). Highland (Accessible Rural area)	To conserve, regenerate and promote the restoration of predominantly native woodlands in the geographical area of Strathnairn as an important part of Scotland's native environment for the benefit of the public. More specific aims include: 1. Enhance the biodiversity of flora and fauna in the area through restructuring, regeneration and management; 2. Ensure open and inclusive access to the woods for cultural, educational and informal recreational use to the benefit of the wider public; 3. Integrate internal forest design with the external landscape; 4. Improve biodiversity value of riparian corridor at edge of Milton Wood; 5. Improve conservation value through choice of tree species and planting location; 6. Promote local cultural / social role of the woodland; 7. Differentiate SCW Milton Wood from surrounding FC plantation forest / woodlands; 8. Give Milton Wood its own identity.	Continued restructuring to break up the even aged plantations and create opportunities to diversify age and species structure throughout the woodland area. Monitoring, maintaining and developing existing habitat within the woods. Creating new habitats where appropriate. Monitoring, maintaining and developing existing recreational facilities. Creating new paths and public facilities where appropriate. Improving communications and information handling to benefit the local community and wider public and promote social, cultural, educational and recreational use of the woodland. Continuing to develop School Wood and Milton Wood with their own identities.
Strichen Community Park Company	1996 - Company Limited by Guarantee & Registered Scottish Charity - Aberdeenshire (Accessible Rural area)	1. To promote the protection and care of the natural environment. 2. To maintain local public environmental amenities. 3. To advance education, particularly regarding the natural environment. 4. To promote, establish and operate other schemes of a charitable nature for the benefit of the community within the Strichen and surrounding area.	-
Southwest Community Woodlands Trust	1997 Community owned Company Limited by Guarantee & Registered Scottish Charity	1. To conserve and regenerate woodlands. 2. To reconnect people, especially the young, to local biodiversity by involving them in woodland crafts and woodland management; and foster appreciation and respect for the countryside.	There is a hardworking core of people, trustees and members who make things happen: planting trees, running courses, cooking, building structures, clearing up after visitors and generally putting the world to rights!

	12 ha (Taliesin Woodland) Dumfries & Galloway (Remote Rural area)		Since 1997 they have planted trees and persuaded landowners to plant trees along the river Urr from the source to the sea to create a wildlife corridor. They are also engaged in coppice restoration and management of native woodland on neighbouring land in partnership with the Forestry Commission. Their Orchard and Wild Harvest Project encourage the people of Dumfries and Galloway to plant and eat locally grown fruit and nuts in order to promote health and wellbeing, enhance local biodiversity and reduce carbon emissions. The project is funded by people buying a tree as a donation to the project, gifting a tree for Christmas, birthdays, christening, or as a memorial. In addition, SWCWT engages in partnership management with FCS of the woodland at adjoining Potterland Hill.
Sunart Community Company	2008 - Company Limited by Guarantee & Registered Scottish Charity - Argyll & Bute	1. To manage community land and associated assets for the benefit of the Community and the public in general as an important part of the protection and sustainable development of Scotland's natural environment, where 'sustainable development' means development which meets the needs of the present without compromising the ability of future generations to meet their own needs. 2. To promote for the public benefit rural regeneration, following principles of sustainable development in areas of social and economic deprivation within the Community.	Improving and Promoting the Sunart Paths Network. Creating the Strontian Men's Shed (community tools shed, craft room, and working area). Running a community-owned shop (Oakwood – Tourism and Crafts). Managing Sunart Community Benefit Fund Conducting a Feasibility and Viability Study of Longrigg Woodland (to consider woodland purchase). Establishing a Loch Development Group to improve Loch Sunart's marine infrastructure, loch related facilities, and to promote greater use of the loch and a wider range of activities, whilst applying the principals of environmental and financial sustainability.
Three Hares Woodland	- Lease Community Interest Company (CIC) 18 acres -	-	Since becoming stewards of the land in January 2017, they have planted over 1400 trees at Three Hares, installed a new sign, built a compost toilet, and secured fund to establish a Forest School. They have also been organising workshops for lots of different groups impacted by COVID including children, key workers, refugees, asylum seekers and adults.
	2015 -		Main projects are encouraging people to move away from fossil fuels for home heating by promoting local

Tweeddale Community Woodfuel (Tweedgreen Ltd.)	Company Limited by Guarantee - Scottish Borders (Other Urban area)	To improve energy sustainability in the community, by replacing fossil fuels with local woodfuel for our energy needs.	woodfuel and eliminating one use plastics and promoting growing and gardening. Established a 'logs for labour' community scheme in the Tweeddale area allowing local people to source their woodfuel at more economic prices by doing the collection and processing work themselves and having fun at the same time. Organised regular shared working (and picnicking) sessions for individuals and families. Built a community woodfuel processing and drying site – see opposite. This is especially helpful for people without sufficient processing or storage space for woodfuel at home. Some members have certificates for chain saw work to help those members without chain saw skills or equipment. Started some tree planting to complete the woodfuel cycle.
Uigshader Living Forest Project	2018 Community owned Company Limited by Guarantee 85 ha Highland (Very Remote Rural area)	To rehabilitate a former plantation forest in Uigshader, Isle of Skye. Using mindful consensus and expanding through learning and networking they hope to nurture and celebrate systems of living that impact lightly upon the earth.	Replanting the woodland with native species of trees and work towards it being a useful resource for the local community to walk, learn and play in.
Ullapool Community Trust	2010 - Company Limited by Guarantee & Registered Scottish Charity - Highland (Very Remote Rural area)	1. The advancement of community development, including the advancement of rural regeneration. 2. To provide within the Community recreational facilities, or organise recreational activities, with the object of improving the conditions of life for the persons for whom the facilities or activities are primarily intended. 3. To advance the arts and/or culture. 4. To advance environmental protection and improvement in the Community through the provision, maintenance and/or improvement of public open spaces and other public amenities and other environmental and regeneration projects (but subject to appropriate safeguards to ensure that the public benefits so arising	Ullapool Community Trust (UCT) is a Development Trust that acts as an umbrella or anchor organisation serving the community of the wider Lochbroom area.

		clearly outweigh any private benefit thereby conferred on private landowners). 5. To provide or assist in the provision of housing for people in necessitous· circumstances within the Community. 6. To help young people, particularly those resident in the Community, to develop their physical, mental and spiritual capacities, such that they may grow to full maturity as individuals and as members of society. 7. To advance heritage and/or preserve, for the benefit of the general public, the historical, architectural and constructional heritage that may exist in and around the Community in buildings (including any structure or erection, and any part of a building as so defined) of particular beauty or historical, architectural or constructional interest. 8. To advance citizenship and/or community development (including the promotion of civic responsibility and the promotion of the voluntary sector and/or the effectiveness or efficiency of charities and promotion of trade and industry). 9. To promote, establish, operate and/or support other similar schemes and projects of a charitable nature for the benefit of the community within the Community. But such that the company shall do so following principles of sustainable development.	
Under The Trees Ltd	2018 - Company Limited by Guarantee & Registered Scottish Charity - Falkirk (Other Urban area)	The company is established for charitable purposes only and to advance outdoor and environmental education for all groups through the provision of outdoor education, forest schools and other outdoor learning experiences in Falkirk, Edinburgh and the surrounding areas.	Organising a wide range of events, and ongoing work with schools, groups, early years settings as well as with young people and adults.
Urban Roots	2009 The land is owned by Glasgow City Council (c. 85%) and South Lanarkshire Council (c.15%), but Urban	1. To advance education, particularly in relation to gardening, local food growing, healthy eating, traditional craft skills and matters relating to the environment. 2. To advance health through encouraging people to become involved in healthy exercise by participating in	Malls Mire Community Woodland managed in partnership with local authorities. The Urban Roots Initiative also manages several community gardens in addition to the woodland.

	Roots has a formal partnership management agreement. Company Limited by Guarantee & Registered Scottish Charity - Glasgow City (Large Urban area)	gardening, environmental improvement projects and similar activities, and by promoting healthy eating and healthier life styles. 3. To advance citizenship and community development (including the promotion of volunteering and the promotion of the voluntary sector and the effectiveness and efficiency of charities) by involving people who might otherwise be socially excluded in gardening, environmental improvement projects and other appropriate activities, and by encouraging the formation and development of local groups which harness the skills and energy of the local community and promote community cohesion. 4. To advance environmental protection or improvement. 5. To relieve those in need by reason of age, ill-health, disability, financial hardship or other disadvantage, and in particular by encouraging them to engage in gardening, environmental improvement projects and other appropriate activities. 6. To promote, establish. operate and/or support other similar schemes and projects which further charitable purposes.	They have transformed numerous derelict or unused green spaces into thriving, blossoming community gardens where herbs and vegetables, fruit and flowers can be grown. This makes the area look more attractive, helps to create well used, safe social places and brings people together.
West Stormont Woodland Group		West Stormont Woodland Group, WSWG, is seeking transformational change to address our climate and ecological emergencies, allowing the community to be the best it can be through careful management and long-term ownership of the woodlands.	Ecoforestry (management approach).
Wooplaw Community Woodland	1987 Community owned Company Limited by Guarantee & Registered Scottish Charity 20ha (including 1. Axehead Wood, 2. Big Wood, 3. Easterpark Plantation, and 4. Gullet Wood) Scottish Borders (Remote Rural area)	To manage Wooplaw Woods, Lauder and (any land adjacent which is either purchased or leased by the company or which is offered to it under a management agreement) in a way which is sustainable and which enhances biodiversity, for the benefit of the local community.	

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Appendix II – List of CWA's documents

This table presents all CWA's documents consulted in this study and their in-text referencing key.

Kind of document and web address	Title of document	Referencing key
Information Sheets https://www.communitywoods.org/information-sheets	1 Getting started	CWA, IS1
	2 Setting up a community woodland group	CWA, IS2
	3 Community Right to Buy and Asset Transfer	CWA, IS3
	5 Woodland Management Plans	CWA, IS5
	6 Long Term Forest Plans	CWA, IS6
	8 Employing a Community Forester	CWA, IS8
	13 Woodland crofts, smallholdings, woodlots and huts	CWA, IS13
	14 Green burials	CWA, IS14
Case Studies https://www.communitywoods.org/case-studies	Six case studies of Scottish Community Woodland Groups	CWA, CS1
	The Children's Wood, Glasgow, Scotland	CWA, CS2
	South West Community Woodlands Trust, Dumfries and Galloway, Scotland	CWA, CS3
	Bute Community Land Company, Isle of Bute, Scotland	CWA, CS4
	Colintraive and Glendaruel Development Trust, Argyll, Scotland	CWA, CS5
	Kilfinan Community Forest Company, Argyll, Scotland	CWA, CS6
	Dunbar Community Woodland Group, East Lothian, Scotland	CWA, CS7
	Duddingston Field Group, Edinburgh, Scotland	CWA, CS8
	Urban Roots Initiative, Glasgow, Scotland	CWA, CS9
	Friends of Leadburn Community Woodland, Scottish Borders, Scotland	CWA, CS10
	Lindean Community Woodland Association, Scottish Borders, Scotland	CWA, CS11
	North West Mull Community Woodland Company, Isle of Mull, Scotland	CWA, CS12
	Gordon Community Woodland Trust, Scottish Borders, Scotland	CWA, CS13
	Wooplaw Community Woodlands, Scottish Borders, Scotland	CWA, CS14
	Laggan Forest Trust, Highlands, Scotland	CWA, CS15
	Drumchapel Woodland Group, Glasgow, Scotland	CWA, CS16
	Dedridge Environment Ecology Project, West Lothian, Scotland	CWA, CS17
	Lionthorn Community Woodland Association, Falkirk, Scotland	CWA, CS18
	Friends of Jubilee Wood, Scottish Borders, Scotland	CWA, CS19
	Knoydart Forest Trust (video)	CWA, CS20
	Abriachan Forest Trust (video)	CWA, CS21
	Making Local Woods Work films (video)	CWA, CS22
E-bulletins, E-newsletter, and Woodland Voices magazine	CWA e-bulletin May 2020	CWA, EB, May20
	CWA e-bulletin April 2020	CWA, EB, Apr20
	CWA e-bulletin March 2020	CWA, EB, Mar20

https://www.communitywoods.org/newsletters-and-bulletins	CWA e-bulletin February 2020	CWA, EB, Feb20
	CWA e-bulletin January 2020	CWA, EB, Jan20
	CWA e-bulletin December 2019	CWA, EB, Dec19
	CWA e-bulletin November 2019	CWA, EB, Nov19
	CWA e-bulletin October 2019	CWA, EB, Oct19
	CWA e-bulletin September 2019	CWA, EB, Sep19
	CWA e-bulletin August 2019	CWA, EB, Aug19
	CWA e-bulletin July 2019	CWA, EB, Jul19
	CWA e-bulletin June 2019	CWA, EB, Jun19
	CWA e-bulletin May 2019	CWA, EB, May19
	CWA e-bulletin April 2019	CWA, EB, Apr19
	CWA e-bulletin March 2019	CWA, EB, Mar19
	CWA e-bulletin February 2019	CWA, EB, Feb19
	CWA e-bulletin January 2019	CWA, EB, Jan19
	CWA e-bulletin December 2018	CWA, EB, Dec18
	CWA e-bulletin November 2018	CWA, EB, Nov18
	CWA e-bulletin October 2018	CWA, EB, Oct18
	CWA e-bulletin September 2018	CWA, EB, Sep18
	CWA e-bulletin August 2018	CWA, EB, Aug18
	CWA e-bulletin July 2018	CWA, EB, Jul18
	CWA e-bulletin June 2018	CWA, EB, Jun18
	CWA e-bulletin May 2018	CWA, EB, May18
	CWA e-bulletin April 2018	CWA, EB, Apr18
	CWA e-bulletin March 2018	CWA, EB, Mar18
	CWA e-newsletter Spring 2021	CWA, EN, Spring21
	CWA e-newsletter Autumn 2020	CWA, EN, Autumn20
	CWA e-newsletter Summer 2020	CWA, EN, Autumn20
	CWA e-newsletter Spring 2018	CWA, EN, Spring18
	CWA e-newsletter Winter 2016	CWA, EN, Winter16
	CWA e-newsletter Spring 2016	CWA, EN, Spring16
	CWA e-newsletter Autumn 2015	CWA, EN, Autumn15
	CWA e-newsletter Spring 2015	CWA, EN, Spring15
	CWA e-newsletter Winter 2014	CWA, EN, Winter14
	CWA e-newsletter Spring 2014	CWA, EN, Spring14
	CWA e-newsletter Winter 2012/13	CWA, EN, Winter12
	CWA e-newsletter Autumn/Winter 2011	CWA, EN, Autumn11
	CWA e-newsletter Spring/Summer 2011	CWA, EN, Spring11
	CWA e-newsletter Winter 2010	CWA, EN, Winter10

	CWA e-newsletter Summer 2010	CWA, EN, Summer12
	CWA e-newsletter Spring 2010	CWA, EN, Spring10
	CWA e-newsletter Winter 2009	CWA, EN, Winter09
	CWA e-newsletter Autumn 2009	CWA, EN, Autumn09
	CWA e-newsletter Summer 2009	CWA, EN, Summer09
	CWA e-newsletter Spring 2009	CWA, EN, Spring09
	Woodland Voices #19	CWA, WV19
	Woodland Voices #18	CWA, WV18
	Woodland Voices #17	CWA, WV17
	Woodland Voices #16	CWA, WV16
	Woodland Voices #15	CWA, WV15
	Woodland Voices #14	CWA, WV14
Training Event Reports https://www.communitywoods.org/training-event-reports-1	CLS / CWA Communities and the Carbon Codes	CWA, TER1
	CWA / LyG Certification for Small and Community Woodlands	CWA, TER2
	CWA Wild Forest Products	CWA, TER3
	CWA Ash Dieback	CWA, TER4
	CWA Farming and Forestry	CWA, TER5
	CWA Charcoal and Biochar	CWA, TER6
	CWA Fuelwood	CWA, TER7
	CWA Multi-trails: trail promotion	CWA, TER8
	CWA Multi-trails: trail planning and management	CWA, TER9
	CWA Multi-trails: trail specification and grading	CWA, TER10
	CWA Multi-trails: trail planning	CWA, TER11
	CWA FES CATS workshop 2019	CWA, TER12
	CWA MLWW tourism seminar	CWA, TER13
	CWA MLWW woodfuel seminar	CWA, TER14
	CWA FES CATS workshop 2018	CWA, TER15
	CWA Hutting seminar	CWA, TER16
	CWA Green burials seminar	CWA, TER17
	CWA Leases, licences and charges seminar	CWA, TER18
	Procurement Workshop Report, 9th March 2015	CWA, TER19
	Conflict Resolution April 2014	CWA, TER20
	CWA Knowledge Share Programme 2011-13	CWA, TER21
	Coppice Management, Kingussie, Nov 2012	CWA, TER22
	Aspen Conservation & Propagation Workshop - Aug 2013	CWA, TER23
	Introduction to Green-Woodworking: shake and shingle making Malls Mire Community Woodland, Toryglen, Glasgow - July 2013	CWA, TER24

	Working with WordPress Training Report - July 2013	CWA, TER25
	Wooplaw Greenwood Weekend Wooplaw Woods, Galashiels - May 2013	CWA, TER26
	Plain English for Funding Applications Monday - May 2013	CWA, TER27
	Drystone Dyke Building Course - April 2013	CWA, TER28
	Fintry Development Trust Introduction to Woodland Management Workshop - April 2013	CWA, TER29
	Woodfuel Processing Training Report - March 2013	CWA, TER30
	Introduction to Charcoal Making Practical Workshop - March 2013	CWA, TER31
	Willow Fedge Report, Killearn, February 2013	CWA, TER32
	Coppice Management Report, Glasgow, February 2013	CWA, TER33
	Wood Products & Brand Development, Knoydart Dec 2013	CWA, TER34
	Health in Woods Seminar, Lochgilphead November 2013	CWA, TER35
	Forest Gardening Workshop, Ullapool, October 2013	CWA, TER36
	Wood Product Workshop, Lochgilphead March 2013	CWA, TER37
	Growing and Harvesting Food in Community Woodlands Seminar Report, Torridon April 2013	CWA, TER38
	Traditional Woodsman Skills, Helmsdale, 2013	CWA, TER39
	Health in Woods Proposal	CWA, TER40
	Growing Woodlands Proposal	CWA, TER41
	Wood Products and Skills Proposal	CWA, TER42
	Money Tree Part 3, Dunnet, Mar 2012	CWA, TER43
	Money Tree Part 2, Inverness, Feb 2012	CWA, TER44
	Money Tree Part 1, Knoydart, Sep 2011	CWA, TER45
	Wood Products Workshop, Milton CWT, Aug 2011	CWA, TER46
	Wood Products Seminar, Milton, Mar 2011	CWA, TER47
	Winter Tree Ident & Survey - Dec 2011	CWA, TER48
	Scribe Log Build Report - Oct / Nov 2011	CWA, TER49
	Wood Product Development, Buy Design Gallery, Oct 2011	CWA, TER50
	Coastal Woodland Management Report, Fife, Feb 2013	CWA, TER51
	Employability and Governance Training Report, Milton, Feb 2013	CWA, TER52
	Mountain Bike Trail Construction, South Queensferry. Apr-Oct 2012	CWA, TER53
	Path Building - Broadford - Oct 2012	CWA, TER54
	Engaging Communities, Kirkton Woods - July 2012	CWA, TER55
	Woodland Forage - Alva - Sept 2012	CWA, TER56
	Woodland Heritage - Cree Valley, June 2012	CWA, TER57
	Greenwood Woodworking - Dunnet - July 2012	CWA, TER58
	Dunbar Greenwood - Shave Horse Construction	CWA, TER59
	LLCCDC Fertile Soils Report - February 2012	CWA, TER60
	Woodland Heritage, Anagach Woods, October 2011	CWA, TER61

	Cordwood Wall, Milton CWT Aug & Sept 2011	CWA, TER62
	Sawlog Extraction & Processing in Small Woodlands, Kirkhill March 2010	CWA, TER63
	Woodland Management Planning, Falkland May 2009	CWA, TER64
	Green Woodworking and Pole Lathe Turning, Dunottar Wood April 2010	CWA, TER65
	Huntly and Moray Woodlands Workshop, Huntly & Forres October 2010	CWA, TER66
	Woodland Management, Cassiltoun August 2010	CWA, TER67
	Inspiring Volunteers, Kirkton July 2010	CWA, TER68
	Staging & Managing Theatre Events in Woodlands, Morvern July 2010	CWA, TER69
	Moth and Butterfly ID & Survey, Gearrchoille Community Wood June 2010	CWA, TER70
	Inspiring Volunteers. Menstrie June 2010	CWA, TER71
	Inspiring Volunteers, Alva Glen May 2010	CWA, TER72
	Woodland Groups and Networking, Milton May 2010	CWA, TER73
	Woodland Gardens, Bothwell May 2010	CWA, TER74
	Woodland Gardens, Fairlie April 2010	CWA, TER75
	Glasgow Woodlands Networking Event March 2010	CWA, TER76
	Project Development Funding, Dundee August 2009	CWA, TER77
	Woodland Deer Management, Knoydart May 2009	CWA, TER78
	Wood Thinning NWMCWC Feb 2009	CWA, TER79
	CWA Knowledge Share Programme 2008-10	CWA, TER80
	Community Woodfuel: Social Enterprise Seminar, Abriachan, September 2008	CWA, TER81
Conference and Networking Event Reports https://www.communitywoods.org/conference-networking-events	A Wood of Our Own - 10 December 2020	CWA, CNE1, 2020
	CWA Conference 2020	CWA, CNE2, 2020
	A Wood of Our Own - 29 October 2019	CWA, CNE3, 2019
	CWA Conference 2019	CWA, CNE4, 2019
	A Wood of Our Own - 8 March 2019	CWA, CNE5, 2019
	Central Scotland networking event - 15 February 2019	CWA, CNE6, 2019
	CWA Conference 2018	CWA, CNE7, 2018
	Central Scotland networking event - 15 March 2018	CWA, CNE8, 2018
	A Wood of Our Own - 27 February 2018	CWA, CNE9, 2018
	CWA MLWW Conference 2017	CWA, CNE10, 2017
	A Wood of Our Own - 22 September 2017	CWA, CNE11, 2017
	A Wood of Our Own 22nd February 2017	CWA, CNE12, 2017
	CWA Conference 2016 - "Community Woods: Learning and Earning"	CWA, CNE13, 2016
	A Wood of Our Own - 2nd September 2016	CWA, CNE14, 2016
	A Wood of Our Own - 8th March 2016	CWA, CNE15, 2016
	CWA Conference 2015 - "Working in Partnership"	CWA, CNE16, 2015
	A Wood of Our Own, 1st September 2015	CWA, CNE17, 2015
	A Wood of Our Own, 4th March 2015	CWA, CNE18, 2015

	A Wood of Our Own, August 2014	CWA, CNE19, 2014
	CWA Conference 2014 "Making the Connections"	CWA, CNE20, 2014
	A Wood of Our Own 24 February 2014	CWA, CNE21, 2014
	A Wood of Our Own, August 2013	CWA, CNE22, 2013
	CWA Annual Conference 2013 - "Community Woodlands - 10 years on"	CWA, CNE23, 2013
	A Wood of Our Own 27th February 2013	CWA, CNE24, 2013
	Woodland Living Seminar Report - Feb 2013	CWA, CNE25, 2013
	Wood of Our Own 30th October 2012	CWA, CNE26, 2012
	CWA Conference 2012 - 25 Years and Growing Strong!	CWA, CNE27, 2012
	CWA Conference 2011 - Arts, Culture and Enterprise	CWA, CNE28, 2011
	CWA Conference 2010 - Making Woodlands Work	CWA, CNE29, 2010
	CWA Seminar 2009 - Roots to Health Seminar Report	CWA, CNE30, 2009
	CWA Conference 2008 - Making Sustainable Places	CWA, CNE31, 2008
	CWA Conference 2006	CWA, CNE32, 2006
Policy and Consultation Responses https://www.communitywoods.org/policy-and-consultation-responses	CWA Local Place Plan Regulations (2021)	CWA, PCR1, 2021
	CWA Land Use Strategy 2021-26 (2021)	CWA, PCR2, 2021
	CWA Scottish Forestry Corporate Plan (2020)	CWA, PCR3, 2020
	CWA SEPA Forestry and Wood Processing Sector Plan (2019)	CWA, PCR4, 2019
	CWA Community Right to Buy, Sustainable Development Secondary Legislation (2019)	CWA, PCR5, 2019
	CWA Scottish Labour Party Policy Forum: Communities paper (2019)	CWA, PCR6, 2019
	CWA Forestry & Land Scotland Corporate Plan (2019)	CWA, PCR7, 2019
	CWA Charity law review (2019)	CWA, PCR8, 2019
	CWA Scottish Forestry Strategy (2019)	CWA, PCR9, 2019
	CWA Forestry & Land Management Bill (2017)	CWA, PCR10, 2017
	CWA Transparency in Land Ownership (2017)	CWA, PCR11, 2017
	CWA Future of Forestry in Scotland (2016)	CWA, PCR12, 2016
	CWA Land Use Strategy (2016)	CWA, PCR13, 2016
	CWA Land Reform Bill (2015)	CWA, PCR14, 2015
	CWA Future of Land Reform (2015)	CWA, PCR15, 2015
	CWA SRDP stage 2 (2014)	CWA, PCR16, 2014
	CWA Community Empowerment Bill (2014)	CWA, PCR17, 2014
	CWA Scottish Affairs Committee (2013)	CWA, PCR18, 2013
	CWA: Land Reform Review Group (2013)	CWA, PCR19, 2013
	CWA: Community Empowerment & Renewal Bill (2012)	CWA, PCR20, 2012
	CWA: strategic directions for the National Forest Estate (2012)	CWA, PCR21, 2012
	CWA: Big Lottery Big Thinking Consultation (2009)	CWA, PCR22, 2009
	CWA: FCS Woodland Expansion paper	CWA, PCR23, 2009

	CWA: SNH Climate Change (2009)	CWA, PCR24, 2009
	CWA: Implementation of the Common Agricultural Policy Health Check in Scotland (2008)	CWA, PCR25, 2008
	CWA: Scottish Forestry Strategy (2005)	CWA, PCR26, 2005
	CWA: NFLS (2005)	CWA, PCR27, 2005
	CWA: SNH strategic review (2004)	CWA, PCR28, 2004
	CWA: Highland forest & woodland strategy (2004)	CWA, PCR29, 2004
	CWA: FCS review of National Forest Land (2004)	CWA, PCR30, 2004
Research Reports https://www.communitywoods.org/research-reports	Community woodlands and private sector forest companies	CWA, RR1
	CWA Branching Out Argyll report (2015)	CWA, RR2
	CWA Hydro Coop Structure Report (2016)	CWA, RR3
	CWA Survey of Trading from Community Woodlands (2016)	CWA, RR4
	CWA New Community Woodlands in Partnership (2014)	CWA, RR5
	CWA Resource Sharing for Community Woodlands (2016)	CWA, RR6
	CWA Timber Products Market Research (2) (2011)	CWA, RR7
	CWA Alternative Funding for Acquisitions (2010)	CWA, RR8
	CWA Timber Products Market Research (1) (2011)	CWA, RR9
Annual Reports and Accounts https://www.communitywoods.org/reports-and-accounts	2019/20 Report and Accounts	CWA, ARA 19/20 (a)
	CWA achievements and performance 2019-20	CWA, ARA 19/20 (b)
	2018/19 Report and Accounts	CWA, ARA 18/19(a)
	CWA achievements and performance 2018-19	CWA, ARA 18/19(b)
	2017/18 Report and Accounts	CWA, ARA 17/18
	2016/17 Report and Accounts	CWA, ARA 16/17
	2015/16 Report and Accounts	CWA, ARA 15/16
	2014/15 Report and Accounts	CWA, ARA 14/15
	2013/14 Report and Accounts	CWA, ARA 13/14
	2012/13 Report and Accounts	CWA, ARA 12/13
	2011/12 Report and Accounts	CWA, ARA 11/12
	2010/11 Report and Accounts	CWA, ARA 10/11
	2008/09 Report and Accounts	CWA, ARA 08/09
	2006/07 Report and Accounts	CWA, ARA 06/07
	2005/06 Report and Accounts	CWA, ARA 05/06
	2004/05 Report and Accounts	CWA, ARA 04/05

Vian, J.E. (2023) Cultivating a healthy social metabolism: A case study of community-led forestry in Scotland [Unpublished doctoral thesis, The University of Strathclyde, Department of Work, Employment and Organisation].

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Appendix III – Study summary for participants and the wider public

The results of scientific research must be shared with the public for successful knowledge exchange and research impact. This is especially important for research participants, so the research is mutually beneficial to all parties involved. This summary of findings was written in an accessible language and format to include a wide audience.

Title: Cultivating a healthy social metabolism: a case study of community forestry in Scotland

Researcher: Jessica Enara Vian

Institution: University of Strathclyde | **Start and end date:** Oct 2018- March 2023

Background to the research

Community Woodland Groups (CWGs) began to form in Scotland at the end of the 1980s. Today, Scotland has more than 200 CWGs. The public and the government have high hopes that CWGs can help to shape a more fair and sustainable way to manage forests.

Research Aim and Questions

The aim of this study was to learn more about to what extent CWGs have supported the Scottish forestry sector become more socially fair and ecologically friendly. Building in the existing literature, the following research questions (RQ) were asked in this study:

- ✓ *(RQ1) Who is the 'community' in Scottish CWGs, and how is this community organised for forest management?*
- ✓ (RQ2) *What factors/actors have contributed to the emergence and empowerment of CWGs in Scotland?*
- ✓ (RQ3) *How can a model of assessment better inform about the overall health of a given social metabolism*[37] *and the possibilities for enhancing it?*

[37] Building on the ecosocialist literature, the term 'social metabolism' is used to conceptualise the quality of human relationships to nature (sustainability), as well as the quality of social relationships (social justice).

Data collection

This study collected information from three sources: (i) two case study CWGs; (ii) the official webpages of 128 CWGs; and (iii) the analysis of 251 documents from the Community Woodlands Association (CWA). Data for the two case studies was collected from a seven-week participant observation in 2019 and 2020, which also included 12 interviews with community members and workers and the analysis of woodland management plans and other documents. Web-based data on 128 CWGs was collected from their official websites, blogs, and Facebook pages, the Scottish Charity Regulator (OSCR) website, and the Companies House website. Finally, data was gathered from the analysis of 251 documents publicly available at the CWA's website (see Appendix II for the full list of documents included in this study).

Research Findings and Outputs

In answer to RQ1, this study found that:

- In Scottish CWGs, the 'community' is usually defined by geographical boundaries and rules about who can join so local residents keep decision-making power and control over the group.

- CWGs tend to operate under a representative model of governance. CWG nominate and vote for the Board of Directors, but most decisions and day-to-day activities are carried out by the members of the Board of Directors, staff, and volunteers. In this representative format, open channels of communication between the Board and the rest of the community have proven to be essential for community engagement and the authentic representation of the community's interests.

- Most CWGs in Scotland are set up as ‘charitable company’, which is a combination of Company Limited by Guarantee (CLG) and a charitable status (Registered Scottish Charity). In spite of taking on a business form, CWGs remain driven by social and environmental goals rather than the profit motive of business-as-usual.

- The six most common goals pursued by CWGs in Scotland, namely: 1. To increase and improve access to cultural, educational, and recreational amenities and activities (92%); 2. To conserve and restore Scotland's natural heritage, ecosystems, and biodiversity (89%); 3. To promote community/sustainable development (50%); 4. To create local employment and opportunities for small businesses' development based on timber and non-timber products and services, and to promote professional training (44%); 5. To prevent or relieve poverty, food insecurity, fuel poverty, and to provide affordable housing (43%); and 6. To advance local citizenship, community involvement, volunteering opportunities, and to develop the spirit of community (38%).

In answer to RQ2, this study found that:

- There is a growing number of CWGs in Scotland since the Land Reform Act (2003). This is the result of a mix of genuine community empowerment and rolled-out neoliberalism. On the one hand, the state aims to build stronger structures for local governance to improve community participation. On the other hand, the slow pace of land reform on the ground and the gradual reduction of state funding for non-profit organizations are signs of a neoliberal process of welfare state retreat, along with the increasing responsibility of communities for their own well-being and for trying to absorb the destructive costs of capitalism.

- CWGs' capacity to make decisions and take action depends on their access to the means of production (i.e., natural, legal, and financial resources), as well as on the strength of their labour power (i.e., knowledge and skills). CWGs must get access to resources (including land, tools, machinery, legal and financial resources) and improve their knowledge and skills in woodland management to have greater control over how local forests are managed.

- The political organisation within and between CWGs are the main force pushing for adequate conditions for CWGs to exist. Members of CWGs also form alliances like the Community Woodland Association (CWA), which promotes CWGs and looks out for their collective interests at the national level. In addition, the CWA has offered consulting

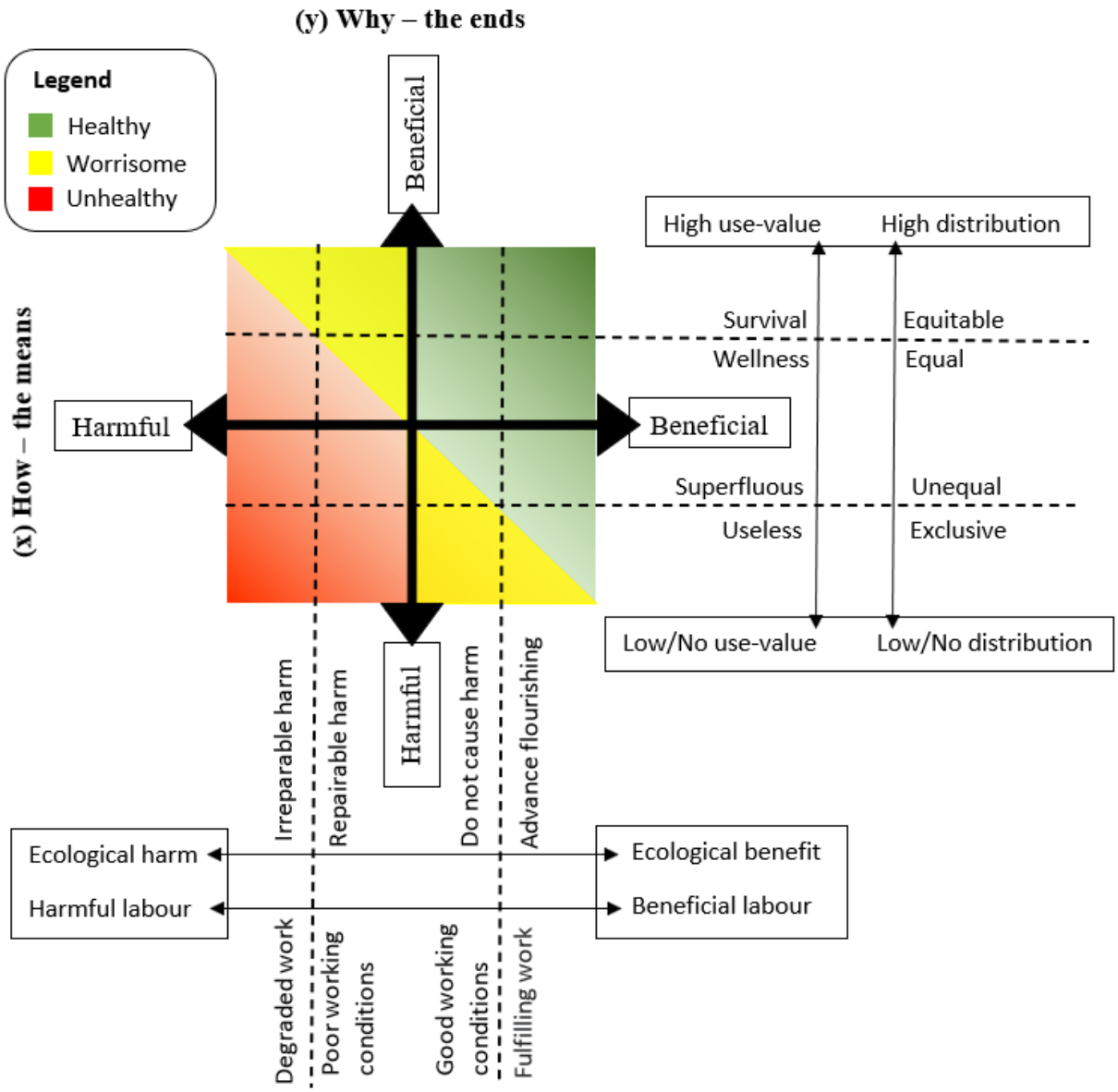
services, training opportunities, networking events, and ways for CWGs to share knowledge and support each other.

- There has been a gradual reduction of financial support from the state to the non-profit sector. As a result, CWGs are under increased pressure to 'do more with less' and find ways to generate their own income by becoming more business-like. In this context, CWGs might feel pressured to prioritise organizational survival and employment over their social and environmental principles and goals.

In answer to RQ3:

Building on the ecosocialist literature, this study created a new assessment model to better understand and measure progress toward a just and sustainable way of producing and living. This model promotes an integrates analysis of the four nodes of Marx's critique of capitalism, namely: (i) the use-value of goods and services; (ii) their social distribution/access; (iii) the standard of working conditions; and (iv) the standard of care for nature.

This model looks at both the ends (or goals) and the means (or practises) of production. It considers the use-value of goods and services and their distribution to understand why something is being produced and who benefits from it (axis y – Why). It also considers the means used to reach an end, how well the means (or process of production) acknowledge the needs and limits of the worker and the environment and care about them (axis x – How). By identifying these key indicators and how they intersect, this assessment model makes it easier for researchers and activists to observe and study them in the real world. Thus, it helps to evaluate progress and shape actions for moving away from the capitalist system and toward a way of making things that can meet human needs (for everyone) without degrading the health of the sources of all wealth (i.e., nature and labour).



This new model was used to look at whether the two case study CWGs were contributing to a sustainability transition. The results were mixed.

On the one hand, data showed evidence that CWGs have helped restore and expand Scotland's biodiverse native forests. They have done so by phasing out monocultures, planting trees and helping natural regeneration, controlling overgrazing and eradicating invasive species, monitoring fauna and flora populations, and educating people about the environment. At the same time, CWGs have been producing an array of things that people in the area can use, like firewood, food (from community orchards and gardens), wood, wooden tools, crafts, and even some furniture.

These goods also bring in money that helps keep people employed in the area and that can be put back into forest management or other projects that help the local community. CWGs also create and improve areas to relax, work out, and learn outside. These areas can improve both physical and mental health of users. Data also shows that people who work for CWGs are happier with their jobs than people who work for conventional businesses. This is because workers believe their work is contributing to a worthy cause rather than serving to enrich the already rich.

On the other hand, data showed that CWGs can help maintain unhealthy capitalist practices by playing a role in to the 'reparative' logic of neoliberalism (like carbon credits generation schemes). In one of the case study communities, problems with 'Health and Safety' measures were observed. This happened because either their importance was underrated or a compromise to 'get things done', with limited time and resources, was made. Data also showed that non-member, temporary workers are at higher risk of injury (than community members, permanent workers) since they are less familiar with the terrain and work activities. In addition to that, non-member workers also do not participate in decision-making, nor benefit (directly) from local environmental improvements (as they do not reside in the area).

Conclusions and implications for CWGs

This study found that CWGs have tried to create a model of local woodland governance that is fair to people and good for the environment. On a larger scale, though, there is a constant tension between absorbing the harmful costs of capitalism and fighting them. This study gave some ideas about where CWGs might be able to take more steps to move a transformative sustainability agenda forward. This could mean not taking part in schemes that provide carbon credits, working to improve job safety and long-term job prospects, and getting more people involved in pushing for better government support, structural reforms, and climate action at a system level.

Communities sometimes must choose an unactualized possibility; that is, they must fight for options that aren't even on the table. In fact, the goals and strategies of grassroots groups like the Scottish CWGs are often to stop the continuation or recurrence of historical oppressions and to push for bottom-up social and political changes that put them in charge of their own lives. They do this in many different ways, such as by voting, sending letters, e-mails, and phone calls to public officials, educating the public about social and environmental problems, and holding protests.

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