



What is a “good” forest?

A case study from Nepal to understand local women’s values for people-centred restoration

Tina Jahn

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Tina Jahn

Supervisor: Harry Fischer, Swedish University of Agricultural Sciences, SLU, Department of Urban and Rural Development

Assistant supervisor: Dil Khatri, Swedish University of Agricultural Sciences, SLU, Department of Urban and Rural Development

Examiner: Flora Hajdu, Swedish University of Agricultural Sciences, SLU, Department of Urban and Rural Development

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Swedish University of Agricultural Sciences
Faculty of Natural Resources and Agricultural Sciences
Department of Urban and Rural Development
Division of Rural Development

Abstract

Restoration is seen as a key strategy to counteract global issues of the climate crisis, deforestation, and land degradation. However, restoration initiatives are being criticised for failing to consider social and political dimensions, leading to negative effects on ecosystems and people.

To make restoration more people-centred, it has been argued that we need explicit strategies and rights that enable local communities to make authorized decisions about forests they depend on. Community forestry offers a model that could contribute positively to those practices, as community-based approaches involve a decentralisation of power that goes beyond merely increasing participation, and often allow for the creation of formalised local institutions that are backed by rights recognised in legislation. A generally successful community forestry program is seen in Nepal, with overall positive outcomes for people and the environment, despite some challenges. It therefore offers an opportunity to study the impact of community-based reforestation programs on local resource users. Special attention is given to understanding how different rural women that use forests in their everyday life, perceive community forests and which aspects they value in their surrounding landscape.

In this thesis, it is therefore asked: *What can we learn from community forestry projects in Nepal about inclusion of women and creating local social benefits that can contribute to broader people-centred restoration approaches? How is community forestry in Nepal perceived by different local women and what specific aspects of the surrounding landscape do individual female resource users value?*

Two villages in the middle hills of Nepal, providing the context of community forestry, are used as a case study. Semi-guided interviews served as the main source of data collection.

The empirical findings show that, although there are inequalities in community forestry in the study sites, and women are not always equitably included in seemingly participatory decision-making, the female respondents in this study are overall very supportive of community forestry as a way of governing forests. Respondents generally credit the way of governing forests for allowing more trees to grow. Specific aspects that women value in terms of a “good” forest in this study and that they perceive as benefits are: a variety of broadleaf tree species that provide products with domestic use value; availability and easy accessibility of products for domestic use; close, easy, safe and most importantly sustained access to collection sites to fulfil people’s daily needs; forests that serve as social places; forests that serve for provisioning shade, air, coolness, or water, and for protection from landslides/erosion. Community forestry can help to support these aspects. At the same time, if the dimension of inclusion is to be a priority for people-centred restoration approaches, work needs to be done to make local institutions more equitable over the long term.

Keywords: people-centred restoration, forest restoration, community-based forest management, community forestry, social inclusion, gender inclusion, equity, local social benefits, participation

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Abbreviations

CBFM	<i>Community-based forest management</i>
CBNRM	<i>community-based natural resource management</i>
CFUG	.....	<i>community forest user group</i>
DFO	.....	<i>district forest office</i>
FAO	.....	<i>Food and Agriculture Organization</i>
FECOFUN	.....	<i>Federation of Community Forestry Users Nepal</i>
FGD	.....	<i>focus group discussion</i>
FPE	.....	<i>feminist political ecology</i>
IPBES	.....	<i>Intergovernmental Platform on Biodiversity and Ecosystem Services</i>
IPCC	.....	<i>Intergovernmental Panel on Climate Change</i>
IUCN	.....	<i>International Union for Conservation of Nature</i>
Katunjee CF	.....	<i>Katunjee community forest</i>
KII	.....	<i>key informant interview</i>
MPFS	.....	<i>Master Plan for the Forestry Sector</i>
NGO	.....	<i>non-governmental organization</i>
NTFPs	.....	<i>nontimber forest products</i>
Salleni CF	.....	<i>Salleni community forest</i>
SIAS	.....	<i>Southasia Institute of Advanced Studies</i>
Thulo CF	.....	<i>Thulo community forest</i>
UN	.....	<i>United Nations</i>
UNECE	.....	<i>United Nations Economic Commission for Europe</i>
UNEP	.....	<i>United Nations Environment Programme</i>

1 Introduction

“Planting trees can increase the resilience of ecosystems, help minimize climate change effects, and buy people and governments time to adapt to changing conditions. Planting native seedlings in ecologically appropriate areas can also counteract soil and biodiversity loss and improve human well-being” (Weeden, 2020). Such statements about tree planting can often be read today when it comes to possible climate solutions. Tree planting campaigns can be seen as part of climate policies worldwide.

Due to global issues of the climate crisis, deforestation and land degradation that lead to loss of biodiversity and ecosystem services (IPBES, 2018), policies call for timely action to restore landscapes and reverse land degradation. The need for strategic restoration is thereby widely recognized, especially given limited time and resources (Dudley, 2005). A current framework for forest restoration by the United Nations (UN) is, for example, the UN Decade on Ecosystem Restoration 2021-2030 which “aims to massively scale up the restoration of degraded and destroyed ecosystems as a proven measure to fight climate change and enhance food security, water supply and biodiversity” (UNEP, 2019). It also supports the Bonn Challenge, which is a global restoration target aiming to restore 350 million hectares of degraded and deforested landscapes by 2030 (IUCN, 2011).

There is, however, often a gap between restoration commitments and ground realities (Laudari *et al.*, 2022). Global agendas and restoration initiatives as nature-based solutions are being criticised for failing to take into account social and political dimensions (Erbaugh *et al.*, 2020; Elias, Joshi and Meinzen-Dick, 2021). The way in which trees are planted and the aspects that are considered differ. There is criticism that large-scale planting programmes often have low success rates and fail to recognise social and ecological complexities of the landscapes. This can have negative effects in terms of costs, risks and damage to ecosystems and people (Fleischman *et al.*, 2020). Looking particularly at negative social aspects of tree planting, problems can for example arise when trees are supposed to be planted on agricultural land that has previously been used for subsistence farming. Issues can also occur when the needs of rural and Indigenous people who depend on ecosystems for their livelihoods, are not considered. Practices that ignore local and Indigenous communities are related to environmental conflicts as well as negative outcomes in terms of conservation and social impacts. At the same time, natural

climate solutions are likely to be more successful if they are aligned with people's interests, provide benefits to rural and Indigenous people, and are locally supported by them (Fleischman *et al.*, 2020; Elias *et al.*, 2022).

To avoid negative outcomes for local people, the focus on them and their decision-making rights, as well as benefits of smallholders, pastoralists and forest communities is therefore seen as essential when it comes to natural climate solutions (Fleischman *et al.*, 2020). Regarding such decision-making rights, the participation of everyone, including local communities and all social groups within those communities can be seen as a condition for successful governance outcomes. It is recognised that opportunities to successfully conserve and regenerate forests depend significantly on local rural communities around the world. To avoid negative social costs, to provide benefits and enable local people to use and manage forests for restoration, it has been argued that restoration strategies need to go beyond generalizing and vague calls for participation. Elias *et al.* (2022) argue that the focus needs to shift from eco-centric restoration strategies to strategies that put people first (people-centred). It is therefore essential to ensure the rights of local communities to be able to participate (Erbaugh *et al.*, 2020). Explicit strategies are needed to incorporate people into restoration planning, instead of using top-down approaches (Fleischman *et al.*, 2020).

In forestry, participatory approaches to decision-making (as opposed to centralized and top-down approaches) have been developed, for example in the context of community-based forestry and reforestation projects (FAO, 2015).

According to The Assessment Report on Land Degradation and Restoration by IPBES (2018), community-based natural resource management (CBNRM) programs across many regions have been successful in preventing and reversing land degradation and can be economically beneficial. CBNRM initially emerged with the idea of giving responsibility for natural resources to local communities and avoiding social costs of conservation, by means of participation, empowerment and decentralisation (Dressler *et al.*, 2010). The IPBES (2018) report also considers the role of secure land ownership, property rights and land use rights for individuals and/or communities, as well as, in general terms, appropriate institutional competencies within communities that enable them to participate in decision-making processes and to manage land and natural resources responsibly (IPBES, 2018). UN tools for example further address gender-responsive action (UNECE, 2022). However, when it comes to the overall outcomes of community-based natural resource management, decades of experience have led to highly uneven results in different regions of the world. This includes, for example, that CBNRM has partly succeeded in ensuring that rights and responsibilities of resource-dependent people in natural resource management are recognised by society and the state. However, by prioritising nature conservation, some decentralised approaches have also resulted in disempowerment and impoverishment of the

people who were meant to be supported (Dressler *et al.*, 2010). Communities are heterogeneous groups and often show hierarchical structures with strong power relations. Such complex relationships within communities can make it difficult to implement well-design CBNRM. Indeed, it has been argued that forestry institutions can even reinforce larger patriarchal social structures that are deeply embedded in some societies (Dressler *et al.*, 2010; Bhattarai, 2020). More research is needed on the conditions that can lead to improved well-being.

When it comes to implementing and realising restoration goals and strategies, the way to achieve these goals remains often unclear. Knowledge to successfully realise restoration at different scales, while also addressing the needs and desires of those who own the land is largely lacking (Chazdon *et al.*, 2015).

1.1 Problem formulation

When it comes to strategies to ensure greater participation of local people in restoration practices, CBNRM or community forestry offers a possibility to contribute positively to those practices, as it involves a shift of power from the state to the local level (McDermott and Schreckenber, 2009). This means, concretely, that community-based approaches involve a decentralisation of power that goes beyond more general calls for increasing participation, but often operates through the creation of formalised, permanent local institutions that are backed by formal rights and recognised in legislation. Discretionary powers in particular make decentralisation meaningful (Agrawal and Ribot, 1999; Ribot, 2003; Fischer, 2021).

Looking at cases of generally successful community forestry programs, Nepal can be listed as one example, that has been recognized as a successful case internationally, incorporating clearly defined policies, institutions and practices (Ojha, Persha and Chhatre, 2010). While showing mixed results in terms of social inclusion or equitable benefit distribution among different resource users (Ghimire and Lamichhane, 2020), research has shown that on average across Nepal, community-based forest management (CBFM) and working with community forest user groups (CFUGs) has led to better overall results in reforestation and reducing deforestation. It can therefore provide helpful insights for restoration. Looking at forest cover, a net positive relationship between forest cover change and poverty in relation to CBFM in Nepal could be found (Oldekop *et al.*, 2019).

However, while results might be positive on average for people and environment, there is less knowledge about the extent to which regenerating forests respond to people's needs and how people at village level perceive their experience and interaction with forests. There may be differences in which aspects local people value or what reforestation outcomes they perceive, versus how forest restoration

is understood on a higher hierarchical level (Ojha, Persha and Chhatre, 2010). To make restoration more people-centred, the needs and values of local communities need to be taken into account when resources are to be restored or conserved (Erbaugh *et al.*, 2020; Elias, Joshi and Meinzen-Dick, 2021). Therefore, it is essential to better understand what those needs and values are and what impact forest restoration can have on local people and landscapes. Importantly, forests and landscapes provide a broad range of benefits that people might value beyond economical or material use value. Such aspects that can contribute to local people's well-being can for example be social relations, governance, cultural values or aspects related to physical and mental health (Miller and Hajjar, 2020). These non-monetary values and aspects need to be taken into account. Different local resource users or members of communities might thereby value and prioritize different aspects, and various social groups might be affected differently by changes in the landscape.

In this context, keeping deeper social structures such as gendered social norms in mind that can influence the level of participation of different social groups or individuals in decision-making concerning community forestry is particularly important. Especially in the context of community forestry in South Asia (India and Nepal), substantial research has been conducted and a gender gap in the participation of community forestry groups has been identified (e.g. Agarwal, 2001; Cornwall, 2003; Nightingale, 2006; Coleman and Mwangi, 2013; Bhattarai, 2020; Pandey and Pokhrel, 2021). In reality, community values therefore still tend to exclude the values of those who most often use the forests. Agarwal (2001) argues for example that the failure to consult women results in the failure of including their existing knowledge of various species to benefit forest regeneration programs. Gender inclusion is thus a key aspect when it comes to the social dimension of restoration and needs to be looked at more explicitly. Particular attention should be paid to the circumstance that within communities there may be different desires, motivations or views on restoration or resource management, which need to be acknowledged. The ability to engage, participate in decision-making or benefit from restoration programmes may vary depending on groups in society or individuals within certain groups (Elias *et al.*, 2022). Critically, women should not be regarded as one homogenous group. Restoration or resource management outcomes may be different for different women, according to aspects of social standing such as caste, age, or wealth (Agarwal, 2001). For this reason, trying to better understand how different female resource users, in particular, are perceiving reforestation outcomes, how they feel about different forest patches or parts of the landscape and what various women value in their surrounding landscape, can provide important learnings for future forest restoration planning.

1.2 Aim of the thesis and research questions

Despite challenges, evidence shows that Nepal's community forestry program has overall resulted in positive outcomes for people and the environment (Ojha, Persha and Chhatre, 2010; Oldekop *et al.*, 2019; Ghimire and Lamichhane, 2020). It therefore offers an opportunity to look more closely at the impact of community-based reforestation programs on local people. Given the overall goal in restoration planning of creating benefits for local communities that respond to their needs, while ensuring inclusion of different local resource users, this study therefore examines what we could learn from such specific community forestry projects for more people-centred restoration approaches. A case study of two villages in Nepal will be used to look at the two dimensions of *inclusion* of and *benefits* for female local resource users.

Because gender inclusion is a key aspect when it comes to the social dimension of restoration and needs to be looked at more explicitly, the dimension of inclusion will be addressed in terms of how different women are participating in decision-making within communities. The focus on women here is justified by the circumstance that they are the ones using forests the most in their everyday life in Nepal and 'participatory exclusion' of women has been shown to exist when it comes to forestry institutions.

To address the dimension of benefits, a broad range of benefits and aspects that local resource users might value also beyond economic or material use value are looked at in this study. People's feelings, beliefs and attitudes towards the landscape and forest use are taken into account. A focus on how different local women as the main forest users in Nepal perceive and value specific aspects in the surrounding landscape, what needs different women have, and what is useful to them is particularly interesting. This thesis therefore focuses on understanding how different rural women in community forestry in Nepal perceive community forests and which aspects they value in their surrounding landscape. As community forests might be valued differently by different resource users, this study aims to explore how benefits and drawbacks of community forestry are perceived by local women and how current forests are responding to the needs of various female resource users. This can provide further learnings for restoration approaches in terms of what might or might not provide benefits to local resource users.

In this study, the following research questions will therefore be addressed:

- *What can we learn from community forestry projects in Nepal about inclusion of women and creating local social benefits that can contribute to broader people-centred restoration approaches?*
- *How is community forestry in Nepal perceived by different local women and what specific aspects of the surrounding landscape do individual female resource users value?*

1.3 Definition of terms: ecosystem restoration, forest restoration, reforestation, afforestation

There are various definitions relevant for defining ecosystem or forest restoration and distinguishing it from reforestation and afforestation.

(Ecological) restoration can generally be defined as “assisting the recovery of an ecosystem that has been degraded, damaged, or destroyed” (Mansourian, 2005, p. 9). Accordingly, in the UN Decade on Restoration, ecosystem restoration is discussed as “assisting in the recovery of ecosystems that have been degraded or destroyed, as well as conserving the ecosystems that are still intact. Healthier ecosystems, with richer biodiversity, yield greater benefits such as more fertile soils, bigger yields of timber and fish, and larger stores of greenhouse gases” (UN, 2019). It emphasises that ecosystem restoration can occur in all types of ecosystems, “including forests, farmlands, cities, wetlands and oceans”. Such initiatives may be carried out at different levels by almost anyone, such as governments, development agencies, as well as corporations, communities and individuals (UN, 2019). In this sense, forest restoration can be seen as one part of ecosystem restoration.

It should be kept in mind that forest restoration does not simply mean tree planting in an area that has been deforested. As Lee (2021) explains, there are areas where reforestation is taking place, but for example with monocultures of fast-growing species, or species that are not native to the area. Although this is also reforestation, it has nothing to do with forest restoration in the sense of restoring biodiversity or natural ecosystems.

Looking now at the differences between forest restoration and afforestation, IPCC (2003, chap. 4.2.5.1) refers to afforestation as an activity occurring on “land that has not been forest for at least 50 years, while reforestation occurs on land that has been forest more recently”. While in this definition, the difference lies mainly in the time that has passed since the area was last covered with forest, the FAO (2020) sees afforestation rather as forest expansion and defines it as follows: “Establishment of forest through planting and/or deliberate seeding on land that, until then, was under a different land use, implies a transformation of land use from non-forest to forest” (p. 6). Following these definitions, forest restoration is seen here as the restoration of the ecosystem forest to its assumed original or “natural” state, which has been degraded, damaged or destroyed, afforestation as the establishment of forest where there was none before (where there was different land use). To keep in mind in particular for this thesis is the point of restoration as a larger concept (beyond tree planting).

2 Background and previous research

To better contextualise the aim of this thesis, the following chapter will provide a more detailed background on contemporary restoration planning and community forestry, as well as on previous research around participatory restoration approaches and influence of gender roles for decision-making in community-based reforestation projects.

2.1 Background on restoration planning and community forestry

Overall, around 1.6 billion people rely on forests for their livelihoods and nearly all forest environments worldwide are inhabited by rural and Indigenous communities. Forest resources are used for subsistence needs, provide income sources and employment (Chao, 2012; United Nations, 2021).

However, ecosystems worldwide are impacted by land degradation, which are “human-caused processes that drive the decline or loss in biodiversity, ecosystem functions or ecosystem services in any terrestrial and associated aquatic ecosystems” (IPBES, 2018, p. 18). These processes are caused, for instance, by inappropriate land management, over-exploitation of natural resources, transformations to urban areas or intensive agriculture. Due to land degradation, the functions of ecosystems are impacted, leading to habitat and biodiversity loss, food and water security, as well as losses of soil fertility and carbon from soils. Land degradation (and thus loss of biodiversity or ecosystem function) is further fuelled by the climate crisis (and vice versa) (IPBES, 2018).

When it comes to degradation and forest loss, direct impacts on biodiversity loss and naturalness can be seen (Dudley, 2005). Avoiding, reducing, and reversing land degradation is therefore seen as essential when it comes to adapting to and mitigating the climate crisis. While avoiding and reducing land degradation can be seen as preferable, restoration can contribute significantly to restoring ecosystem functions, especially as declining biodiversity can lead to limiting the self-restoring capacity of ecosystems (IPBES, 2018). The need for strategic restoration is thereby widely recognized, especially given limited time and resources (Dudley, 2005).

2.1.1 Contemporary restoration planning

Various global, regional, and national restoration goals have been established. As mentioned above, a current restoration target is the Bonn Challenge, aiming to restore 350 million hectares of degraded and deforested landscapes by 2030 (IUCN, 2011). The Bonn Challenge is supported by regional initiatives, such as “AFR100”, launched by ten African countries, “ECCA30” in Europe, the Caucasus and Central Asia, or “Initiative 20x20” in Latin America (IUCN, 2020). Another current framework for restoration is the UN Decade on Ecosystem Restoration 2021-2030 which “aims to massively scale up the restoration of degraded and destroyed ecosystems as a proven measure to fight climate change, and enhance food security, water supply and biodiversity” (UNEP, 2019). Figure 1 shows an overview of the main global frameworks supporting forest landscape restoration.

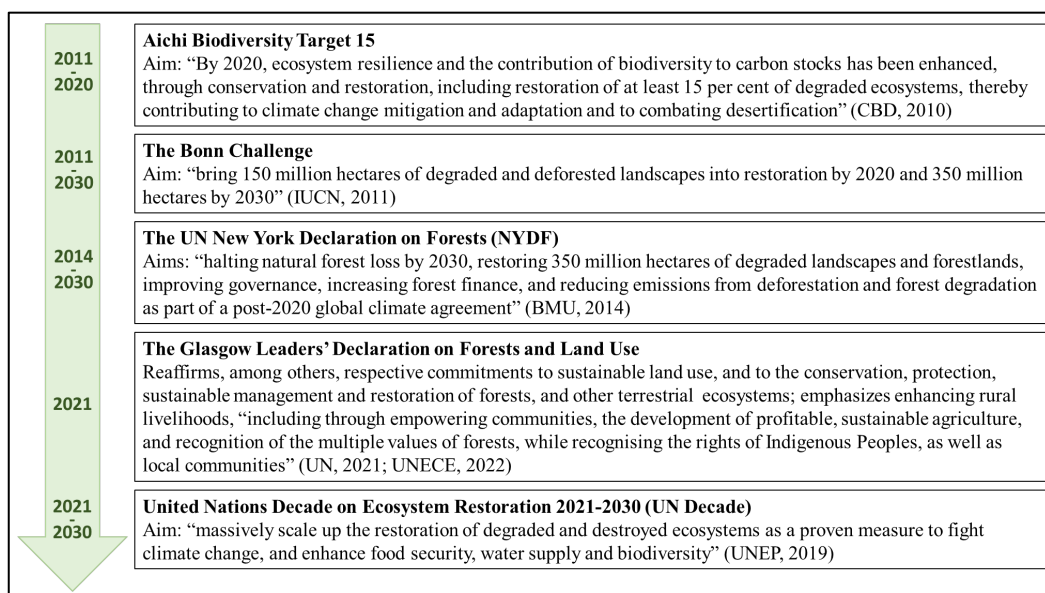


Figure 1: Overview of main frameworks supporting forest landscape restoration, based on CBD, (2010); IUCN (2011); BMU (2014); UNEP (2019); UN (2021); UNECE (2022)

Forest landscape restoration as a concept taken up in the Bonn Challenge generally recognizes the importance of land management as having a wider and more holistic impact than a number of site-specific technical actions (Laestadius *et al.*, 2015). Hereby, purposes of biodiversity conservation, carbon sequestration, providing ecosystem services, and enhancing human well-being play a role on landscape scale, including a strategic choice of the location of forests and woodlands in the broader landscape. Forest landscape restoration aims to promote both ecological restoration and human well-being in degraded landscapes through the involvement of local stakeholders and demands that the underlying causes of forest loss and degradation are dealt with (Mansourian, 2005).

However, discussions around global restoration and climate mitigation goals have been criticized for rarely taking into account the social dimension and for not being socially inclusive (Erbaugh *et al.*, 2020; Elias, Joshi and Meinzen-Dick, 2021). Erbaugh *et al.* (2020) for example have criticised the Bonn Challenge for referring to forest landscape restoration in terms of large-scale forest restoration projects, without stressing the importance of properly involving local stakeholders in the planning and implementation processes. This is particularly important when looking at stated numbers of “294.5 million people [living] on tropical forest restoration opportunity land in the Global South [alone], including 12% of the total population in low-income countries” (Erbaugh *et al.*, 2020, p. 1). There has also been criticism that to achieve ambitious, large-scale international restoration goals such as the Bonn Challenge, much of the currently nationally approved restoration areas will ultimately be allocated to large-scale tree plantations. This causes more harm for local people than good (Coleman *et al.*, 2021).

Especially tree planting as a natural climate solution has become popular as an idea for global climate policy because of the capacity of trees to capture carbon from the atmosphere. As mentioned, there is criticism, however, that large-scale planting programmes have low success rates and fail to recognise social and ecological complexities of the landscapes (Fleischman *et al.*, 2020). It should also be considered that not all unforested areas are suitable for tree planting or should be afforested, for example those that are naturally scarce in forest cover, like savannas, grasslands, or peatlands. Planting trees in ecosystems that are not suitable for afforestation has harmful consequences for the biodiversity of these ecosystems and is not beneficial in tackling the climate crisis (Temperton *et al.*, 2019; Fleischman *et al.*, 2020). In addition, tree plantings carried out without the support of the local population to quickly achieve restoration targets without a long-term plan, can have negative effects in terms of costs, risks and damage to ecosystems and people, and may even result in forms of land degradation (IPBES, 2018; Fleischman *et al.*, 2020). The effects on local resource users especially need to be taken into account. Although positive benefits for peoples’ livelihoods may arise, equally negative outcomes may occur if, for example, land has been used for other purposes, such as open grazing for livestock or subsistence farming on which local people depend. Especially in connection with insecure land tenure, land might be seen as available for tree planting even when it is not. The social contexts, local support, as well as benefits and decision-making rights of rural and Indigenous people are therefore essential when it comes to ecosystem restoration (Erbaugh *et al.*, 2020; Fleischman *et al.*, 2020; Elias, Joshi and Meinzen-Dick, 2021).

While many countries are working to integrate restoration strategies into sustainable development and conservation agendas, the way to achieve these goals remains often unclear. Knowledge to successfully implement restoration at

different scales while also addressing the needs and desires of those who own the land is largely lacking (Chazdon *et al.*, 2015).

2.1.2 Prioritising local communities in forest restoration

It is acknowledged that controversial opinions exist on the extent to which reforestation should play a role in reducing carbon from the atmosphere, since decarbonizing the economy while protecting intact landscapes is crucial if the climate crisis is to be tackled. Overall, there is however agreement on forest restoration as a key strategy when it comes to conserving global biodiversity and to mitigating the climate crisis (including carbon removal) (IPBES, 2019). Erbaugh *et al.* (2020) hereby argued that “restoration initiatives must [...] identify how best to work with local communities”. Agarwal (2009) points out in this regard that it is now widely recognized that chances to conserve and regenerate forests depend significantly on the collective action of countless local rural communities around the world.

Looking at areas for large-scale ecosystem restoration, maps and analyses have been developed focusing on prioritized locations based on biodiversity, carbon sequestration potential, and cost-effectiveness. Strassburg *et al.* (2020) for example suggested global priority areas for ecosystem restoration, considering biome-specific differences. On the one hand, the authors are mentioning that “free, prior and informed preferences and knowledge of Indigenous peoples and local communities to foster success and resilience and avoid negative social outcomes” (Strassburg *et al.*, 2020, p. 728) must be included in decision processes. On the other hand, the analysis has been criticised for not adequately addressing the rights and well-being of people who live in the identified areas and for not really specifying how to achieve their suggestions. Particularly impacted in this regard are likely to be Indigenous, forest-dependent, and rural people (Fleischman *et al.*, 2022). The latter authors therefore argue that explicit strategies are needed to incorporate people into restoration planning, instead of using top-down approaches.

Practices that ignore local and Indigenous communities are related to environmental conflicts as well as negative outcomes in terms of conservation and social impacts. In India, for example, there are areas with potential for reforestation, and some institutional mechanisms are in place that could enable strong local participation and joint management between state and communities. Nevertheless, tree plantings are undertaken by the state forest department and it could be observed that planting efforts have not resulted in species valued by local users (or even in a slight shift away from tree species valued by locals) (Coleman *et al.*, 2021).

Several authors therefore argue that current restoration approaches need to go beyond generalizing and vague calls for including local stakeholders or simply calling for more participation (Erbaugh *et al.*, 2020; Fleischman *et al.*, 2020; Elias *et al.*, 2022). Instead, Erbaugh *et al.* (2020), for example, emphasise that ensuring

rights for local communities that enable them to make authorized decisions about nearby forests, as well as empowering them to use and manage forests for restoration through resource rights is essential. Apart from securing resource rights, a legal framework for community forest rights, and expanding community forest ownership can be seen as crucial points for equitable and sustainable climate solutions (Erbaugh *et al.*, 2020).

Regarding the social dimension of restoration and the creation of benefits for the local population, Elias *et al.* (2022) further criticize that top-down restoration approaches often focus too much on ecology. Being prescriptive, such restoration approaches do, according to them, neither recognize the role of humans in nature, nor the complex power relations, political-economic interests, inequalities or underlying dynamics that need to be overcome for successful restoration. Elias *et al.* (2022) point out that inadequate attention to the social dimensions of environmental efforts can, in addition to failing to achieve ecological goals, lead to “dispossessions, land grabs, conflict, and further marginalization of vulnerable groups” (p. 6). The authors therefore propose “Ten people-centered rules for socially sustainable ecosystem restoration”. Thereby, they argue that environmental and social goals for restoration can only be achieved through shifting the focus towards strategies that put people first (as opposed to principles that are eco-centric). Elias *et al.* (2022) consider it for example essential to acknowledge the range of perspectives of different stakeholders and rightsholders and to draw on different types of knowledge. According to the authors, the tenure of resources, especially for marginalized groups needs to be strengthened, and communities need to be actively involved as agents of change. Addressing equity issues, and equitably distributing costs, risks and benefits, is further seen as a central point when it comes to restoration initiatives.

Given that there is consensus of restoration as a strategy to sequester carbon and fight the climate crisis, as well as that restoration should provide benefits to local people as well as the need for participation, the question remains as to how these aspects can actually be achieved on the ground. The following section provides an overview of previous research on participatory approaches for managing natural resources that can serve with models to enhance those aspects for restoration approaches as well.

2.1.3 Participatory restoration approaches and community forestry

Looking at participatory approaches of forest restoration and management (as opposed to centralized and top-down ways of decision-making), participatory processes are intended to give those with a direct interest in forest management the opportunity to participate in decision-making, forest policy formulation, and forest management (FAO, 2015).

In general, various levels or degrees of participation can be identified when it comes to managing natural resources. Sandström (2008), for example, adapts Arnstein’s (1969) “ladder” of participation and classifies participation in natural resource management and relationships between state and communities from mere *information* about decisions without the opportunity to comment (one-way communication) to *local control* (community control), see Figure 2.

In terms of *local control*, while it is possible for agencies to be involved, communities theoretically have full control and decision-making power over resource allocation, use, and management (Sandström, 2008, pp. 56–58). For such a shift toward local control to be possible, however, policies and institutions at higher level are required to allow for it and will therefore have an influence on local management mechanisms. Often, such a shift involves changes in constitutive regulations and is “a process that evolves over time” (Sandström, 2008, p. 58). That means there is an interplay between different management roles, levels and tasks (such processes and dynamics that might need to be balanced are indicated by the double arrow in Figure 2) (Sandström, 2008). The author thereby points out that there is much more complexity to this typology in terms of rules, functions, or levels of decision-making that can have an influence on how natural resource management is carried out.

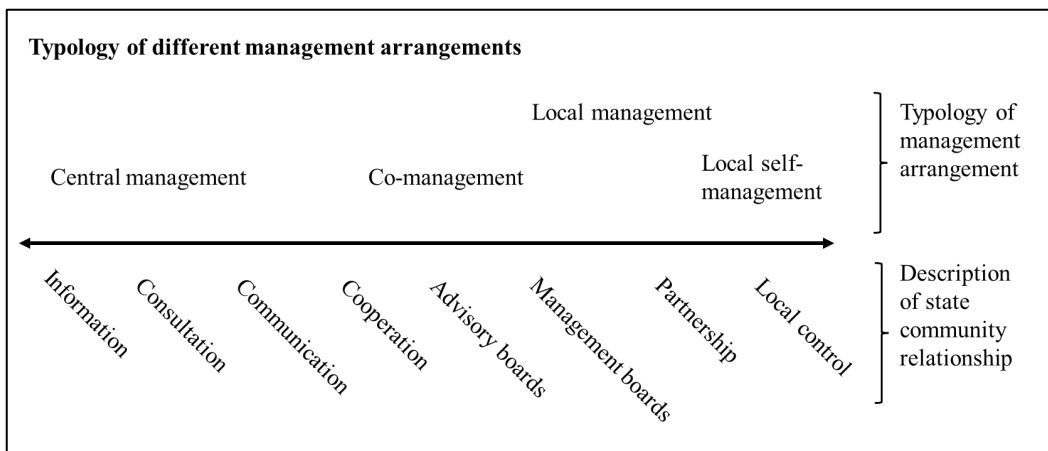


Figure 2: Typology of natural resource management arrangements (Sandström, 2008, p. 57)

Looking again at the idea of people-centred approaches to restoration, Elias *et al.* (2022) argue that restoration approaches should focus on the values, priorities, and capacities of communities as agents of change, instead of trying to implement top-down programs. Special attention should be paid to the issue that within communities there are many diverse desires, motivations or views on restoration or resource management that should be recognized (Elias *et al.*, 2022, Rule 1). This means that communities are not homogeneous units. Socio-economic differences such as gender, age or class might lead to marginalisation. The various perspectives within a community may not be represented by one community leader, especially

those of marginalized members of a community (Agarwal, 2009; Elias *et al.*, 2022). The ability to engage, participate in decision-making or benefit from restoration programmes differs widely among people or groups in society (Elias *et al.*, 2022). The issue of participation within institutions or communities is further discussed in chapter 3.2.

So, when it comes to restoration programs and involving local people, a challenge that needs to be considered is the development of a political and social landscape that enables local resource users to make decisions about securing their livelihoods (Hobley, 2010). Looking at cases that try to ensure greater participation of local people, community forestry provides an opportunity to be studied as a model that could contribute positively to restoration practices.

Community forestry (or community-based forestry) generally relates to the context of natural resource management (Agarwal, 2001). It is a participatory approach to forestry, increasing local responsibility for forest resources and improving local rights (FAO, 2015).

Similar terms that are used are, for example, decentralized forest management or community-based forest management (CBFM) (Oldekop *et al.*, 2019), but also participatory forest management, adaptive collaborative management or joint forest management (McDermott and Schreckenberg, 2009, p. 158). In the following, the terms community forestry or CBFM will be used, as these terms are dominant in the study context of Nepal.

In essence, community forestry involves a shift of power from the state to the local level (McDermott and Schreckenberg, 2009). In concrete terms, this means a decentralization of power, which goes beyond a mere increase of participation. Community-based or decentralized approaches that fulfil claimed benefits should allow for the creation of formalized permanent local institutions that are supported by formal rights and recognized in legislation (in contrast to temporary projects). It has further been argued that changes toward a more decentralized and responsive design of governance structures can emerge through longer-term political transformations, institutions that are accountable to the public, and that it is especially discretionary powers that make decentralization meaningful (Agrawal and Ribot, 1999; Ribot, 2003; Fischer, 2021).

In this thesis, Nepal's forest restoration initiative will be looked at more closely, having gained attention internationally for generally successful community forestry. This is because of a political landscape that overall supports direct participation and enables the empowerment of local communities as well as strong local-level institutions¹ (Ojha, Persha and Chhatre, 2010). While showing many positive results, including improving livelihoods in the rural areas of Nepal or improving forest conditions in some places, major challenges related to CBFM in Nepal can still be identified, meaning that outcomes have been mixed (Paudel, Carr

¹ Further details on the institutional landscape in community forestry in Nepal are provided in chapter 4.1.1.

and Munro, 2022). These challenges include for example social exclusion or inequitable benefit distribution among forest user groups (Ghimire and Lamichhane, 2020).

This means, even in approaches to reforestation or natural resource management that provide communities with legally recognized rights to have a say in managing resources, power dynamics and social norms can have an impact on the decision-making capacity of different individuals or social groups. Especially depending on gender and class/caste, the relationship of members within communities to the forests on which they depend can vary, and typically socioeconomic inequalities and differences exist (Agarwal, 2009).

Particularly relevant to this thesis is the influence of gender roles on decision-making in community-based reforestation projects.

2.1.4 Influence of gender roles for decision-making in community-based reforestation projects

As mentioned above, around 1.6 billion people worldwide are depending on forests for their livelihoods (United Nations, 2021). It has been found, however, that gender differences exist between women and men in terms of for what purposes and to what degree they depend on and use forests for their livelihoods (Agarwal, 2009). That means that “[f]orestry and agroforestry systems are not gender-neutral” (Guarascio *et al.*, 2013, p. 14). These differences are closely linked to gender division of labour (separate work areas due to gender norms) and economic status, which means that rural women are typically the ones interacting more with forests as they need to fulfil the households’ daily needs for forest products like firewood, fodder, and non-timber products. In contrast, rural men are typically more likely to depend on timber as an occasional need. Rural people without land are thereby typically more dependent on local forests than people who own land (Agarwal, 2009).

These differences in forest dependence, related to the gender division of labour, can result in differences in people’s preferences for certain forest products and in their knowledge or values about forest species or regeneration processes (Robbins, 2000; Agarwal, 2009). Especially in terms of forest restoration, women might, for example, bear disproportionate costs from forest closure or restricted forest use, such as spending more time searching for alternative sites for firewood and livestock fodder, which may reflect in different values and concerns regarding daily needs and restoration activities. At the same time, women’s concern for forest products may have positive effects on forest conditions, for example, in determining which products to promote when planting forest species or how to extract certain products during forest opening periods. It has been shown that a gendered composition of a local forest management group can have a positive effect on forest conservation and better regeneration (Agarwal, 2009). The author also

points out that, with respect to forest conservation, there are indications that women tend to be better informed about fuelwood, forage, and non-timber species, whereas men tend to be better informed about timber resources.

In relation to tree species preferences and how forests are perceived, Samndong and Kjosavik (2017) for example found that women in the Democratic Republic of Congo “view their forest as a place with fertile soil for farming and with many nontimber forest products (NTFPs) for consumption and cash income, and as a place to collect firewood for the household” (p.4). Men, meanwhile, see the forest as a “place with big trees to harvest timber, a place with sticks/poles and material for construction, a place with trees to produce charcoal, a place with many wild animals for bush meat, and a place full of different NTFPs and medicinal plants for subsistence use and cash income” (Samndong and Kjosavik, 2017, p. 4). The difference in the sense of trees to harvest timber as well as charcoal production is particularly noticeable here. Another study around cacao agroforestry in Indonesia showed gender-specific species preferences in the sense that female farmers preferred shade tree species providing food and/or social and cultural benefits. Male farmers favoured “species with long-term economic benefits such as timber [...] and fruit trees of high economic value” (Sari *et al.*, 2020, p. 9). Bhattarai (2020) further indicates that male-dominated and timber-focused forest management can lead to lower diversity of forest species.

As successful restoration depends on working with local communities, more research into the tree species preferences of different groups of the population (especially in terms of gender) can therefore be helpful in understanding what exactly benefits different parts of communities. More knowledge in this area can help to ensure tree species diversity while making sure local species can meet people’s needs according to their preferences.

Due to forestry not being gender neutral and women often being the main users of forests, it is particularly useful to look at the influence that gender roles can have on decision-making processes of community-based reforestation projects. This is particularly important as involving women in decision-making processes can lead to different access arrangements that better take into account their needs (Coleman and Mwangi, 2013). To illustrate this influence of gender roles on decision-making processes, previous studies and interview examples from research on gender inequality in community forestry in Nepal can be used, as Nepal’s history of community forestry has allowed for this influence to be well studied.

On the one hand, one of the main policy objectives in forestry in Nepal is gender inclusion and, according to Pandey and Pokhrel (2021), there are studies that have concluded an increasing participation of women and men in community forestry. Pandey and Pokhrel (2021) for example found an overall promising gender balance in decision-making positions in community forestry that “complies with the policy envision (50% in the executive committee, in which either the chairperson or

secretary of CFUG must be a women member, but more than one such member is welcomed)” (Pandey and Pokhrel, 2021, p. 10). On the other hand, Pandey and Pokhrel (2021) also point out that there are studies that show that women are often marginalised in decision-making processes and that the actual participation of women in practice still needs to be further assessed.

Indeed, in a case study conducted by Bhattarai (2020) in Nepal, gender inequality is seen not solely in forestry institutions or in institutions created for climate adaptation, but it is argued that community forestry institutions can reinforce the larger patriarchal social structures that are deeply embedded in the sites in Nepal. With a look at participation of women in decision-making processes, the study reveals for example the following opinion of a Nepali woman: “I have been the chairperson of my community forest user group for a couple of months. Even if I hold this position, I am not supposed to perform all the tasks that are supposed to be carried out as a chairperson. [...] I was requested by my male neighbours to be enlisted as a chairperson of my CFUG on the condition that male members will do all the work that I am supposed to do as a chairperson. (Female respondent # 30)” (Bhattarai, 2020, pp. 880–881). Also where women-only community development groups existed, the study revealed that the participation of men in the decision-making is still considered to be common. Bhattarai (2020) finds indications that “both men and women agreed that women lack the required capacity and confidence to fully utilize such women’s decision-making forums” (p. 880). Similar opinions were found in a study conducted in Nepal by Giri and Darnhofer (2010a).

Such examples suggest that differences between the formal inclusion of women due to legal requirements and their actual active participation can exist (Giri and Darnhofer, 2010a). While women’s empowerment and an enabling political landscape (which, for example prescribes women’s quotas to improve the inclusion of women in community forestry decision-making in Nepal (Giri and Darnhofer, 2010a)) is an important step towards a redistribution of power in decision-making processes in community-based reforestation projects, gender norms might still be so dominant that power in the end remains with the men in the groups.

In this context, also Bhattarai (2020), referring to Agarwal (2001), speaks of mechanisms of ‘participatory exclusion’ and describes how women are often not meaningfully involved in decisions concerning community forest management. Bhandari *et al.* (2018) refer to women “serving as a token representative without exercising the authority” (p. 14).

This is an important point to consider as social structures can lead to marginalization and issues like ‘participatory exclusion’, even if the political landscape formally allows for the participation of both men and women in equal proportions. Such social structures that can create these gendered disparities include for example gender segregation in public spaces, the gendered division of labour,

gendered behavioural norms (in terms of socially acceptable behaviour for women or men), or inaccurate social perceptions of women's abilities to contribute, which all might undermine women's power in decision-making (Agarwal, 2001).

Chapter 3.2 will elaborate in more detail on the theory of participatory exclusion and factors that influence participation within institutions.

The points mentioned are particularly problematic, because as Wijsman and Feagan (2019) state: “[t]he exclusion of women and Indigenous people, as well as other socially marginalized groups, from being recognized as legitimate knowers [...] limits the kinds of knowledge thought relevant, and risks keeping the realities that only socially marginalized groups experience hidden within the dominant social order” (p. 72).

Hereby should be noted, however, that despite participatory exclusions, the attendance of women in meetings of CFUGs, or for example requirements such as reserved seats, can still be seen as positive. It can provide an opportunity for women to experiment with leadership in institutionalized spaces, to participate and gain confidence, or to redefine their role in society, giving them legitimacy. This may provide an opportunity to ultimately bring about shifts in values and beliefs (Nightingale, 2006; Giri and Darnhofer, 2010a; Arora-Jonsson, 2012, chap. 7; Fischer, 2021). It can thereby be argued that social norms should not be seen as stable, but as a process, which makes it possible to “redefine what is considered acceptable behavior for women” (Giri and Darnhofer, 2010a, p. 1219).

2.2 Research relevance and theoretical gap

The previous chapters have argued that, in order to be successful, contemporary restoration planning must not only focus on the ecological, but also the social dimension (or even be people-centred) and result in benefits for local people. Care must be taken that all parts of the local population are included in these benefits and not only those who actively (can) participate in decision-making. A gap has been identified between restoration commitment and ground realities, and the issue of how national and regional restoration commitments should be implemented at local level while also addressing the needs and desires of those who own the land remains vague.

When it comes to more participatory approaches, it has been argued that current restoration approaches need to go beyond generalizing and vague calls for including local stakeholders or simply calling for more participation. Rights for local communities and legally recognized frameworks are necessary in order to achieve influence on restoration approaches for local people. Literature on how these aspects can actually be achieved for restoration on the ground, is however missing. This is the first gap this thesis is intended to address.

Especially regarding forest governance, substantial research has been conducted on community forestry as a participatory approach for managing natural resources and the influence of different norms or power relations on participation in decision-making processes. Community forestry therefore provides an opportunity to be studied as a model that could also contribute positively to restoration practices.

The participation of local communities and all social groups within those communities is essential in order to benefit from different perspectives in forest management and restoration but is often not fulfilled due to deeper social structures. Gendered social norms and gender inequalities can be a contributing factor. Even in cases such as Nepal, for example, with its long history in community forestry and increasing participation of women and men in community forestry, studies could show how women are still often marginalized in decision-making processes and that the actual participation of women in practice needs further assessment.

It has been argued that restoration approaches should focus on the values, priorities, and capacities of local resource users as agents of change. However, the question that arises is what are the values, priorities, and capacities of different members of communities and what should be prioritised in restoration to be actually able to provide benefits? Are forests able to respond to people's needs? What kind of aspects need to be fulfilled by forests and the landscape in order to be valuable for local resource users? These might be aspects with economical or material use value, but also include benefits valued beyond that. That means, when it comes to outcomes of restoration efforts, the needs and values and how different parts of communities perceive their experiences need to be better understood. Evidence-based work on these points, and what types of benefits local resource users want and need does not exist sufficiently. This is the second gap this thesis is intended to contribute to.

The focus will thereby be on rural women, as they have been shown to generally interact more with forests for their livelihoods and can be more marginalized in decision-making processes, which might translate into different values and perspectives on forest restoration and management.

Nepal, with its history in community forestry, will be used as a site-specific example to look at this issue in more detail.

As mentioned above, this thesis therefore examines what we can learn from community forestry projects for more people-centred restoration approaches. It will be examined how local women in community forestry perceive and value their surrounding landscape and what benefits and drawbacks of community forests might be perceived when it comes to responding to their needs.

3 Theoretical background

Against the background of contemporary restoration planning, its need to prioritise local communities, and in particular against the background of social norms and gender roles that influence decision-making in community forestry, this chapter presents the theoretical background on which this thesis is based.

3.1 Feminist political ecology

In general, the term political ecology is quite broad and comprises a variety of definitions. It should not be seen as a single theory, but rather a set of independent approaches that come together in this field (Robbins, 2011). A core statement in the field of political ecology is that most environmental issues are indeed political, meaning power relations in society can influence social and environmental systems and create uneven impacts upon people (Robbins, 2011, chap. 1). So, political ecology is trying to understand the interconnected relationships between people and the environment and thereby also looks at power, politics, and equity as part of broader societal structures, all within geographic and historical contexts (Osborne *et al.*, 2021). Drawing on the field of political ecology, looking at power relations that can “play out along axes of class, gender, race, ethnicity, indigeneity, and colonial histories” (Osborne *et al.*, 2021, p. 2) are important.

Since this study is concerned with aspects of inclusion of different local resource users in restoration approaches, with a focus on women’s needs and values, a feminist perspective focusing on gendered power relations that play out through women’s social roles in their everyday lives, is particularly useful. In this regard, Elias, Joshi and Meinzen-Dick (2021) suggest that feminist political ecology (FPE) provides a valuable lens for looking particularly at dynamics of restoration, as it emphasises those gendered power relations, scale integration, and historical awareness. The authors argue that “[u]nequal power relations between the state and local communities, within communities, and within households shape how restoration priorities are set, whose knowledge counts, and how rights to resources and benefits are perceived and distributed” (Elias, Joshi and Meinzen-Dick, 2021, p. 3). They highlight that the values that different groups of people consider important in resource management options (including restoration) should be taken into account.

According to Resurrección and Elmhirst (2020), a central aspect of FPE is that it “interrogates power around knowledge production and the positionality of the knower in a world divided in intersecting ways along lines of gender, class, social status, and age“ (p. 42). This means that the feminist perspective takes into account gendered inequalities and unequal power relations concerning knowledge, rights, responsibilities, and people’s ability to participate in decision-making processes about the management of natural resources (including forests). It recognizes that gender is related to class, race, and other aspects of power that affect environmental management decisions (Elias, Joshi and Meinzen-Dick, 2021), which in turn could have gendered impacts or implications for what benefits and drawbacks of community forests emerge for women in this case.

By using a FPE lens of restoration for this thesis, these points will be acknowledged, and qualitative research shall be used to gain more insight about perspectives, values, views, and experiences of local women in particular, with regard to restoration planning. Instead of adopting a “top-down vision of what constitutes benefits and costs, how these should be distributed, and among whom” (Elias, Joshi and Meinzen-Dick, 2021, p. 8), women, as the primary users of forests in Nepal, are asked what aspects they value and what benefits and drawbacks they see in community forests when it comes to meeting their needs. This is intended to place particular emphasis on those resource users whose experiences have not necessarily been included in decision-making in the past, and shall empower the plurality of voices and values in relation to restoration (Elias, Joshi and Meinzen-Dick, 2021).

Another aspect relevant for this thesis in the context of women’s values and experiences is that emotions and affect, personal everyday experiences/practices that people have with and in the environment, can have an influence on why people might care about their environment (forests) and take action (Singh, 2013; Nightingale, Gonda and Eriksen, 2022). For restoration, this is particularly interesting, given that studies have shown that emotions and affect can have an influence on human behaviour beyond economic or political reasoning or incentives, leading for example villagers to undertake efforts to regenerate degraded forests (Singh, 2013).

3.2 Participatory exclusion

In the previous chapters of this thesis, it has already been pointed out that gender roles, among others, can influence decision-making processes of community-based reforestation projects. As the way in which certain individuals and groups within, for example, communities are involved in decision-making can influence forest management and ultimately restoration priorities, this chapter will elaborate in

more detail on factors that influence participation within institutions and the theory of participatory exclusion.

In the context of gender and forest institutions, this is based on Agarwal’s (2001) theory on why and to which degree women are involved in forest management decision-making and how underlying systemic factors can lead to participatory exclusions (“exclusions within seemingly participatory institutions” (Agarwal, 2001, p. 1623)). The focus in Agarwal’s (2001) conceptual framework is thereby on gender aspects, intersecting with class/caste in the context of community forestry, however relevant in other context as well.

Reflecting on the different levels of participation in a group, Agarwal (2001) categorises them on the basis of previous literature from nominal participation (mere nominal membership) as the lowest level of participation, to interactive participation as the highest level, where also those being disadvantaged have a say and impact on decision-making (see also Table 1).

Table 1: Typology of participation in a group from lower to higher levels based on people’s activeness, adopted from Agarwal (2001, p. 1624)

Form/Level of participation	Characteristic features
Nominal participation	Membership in the group
Passive participation	Being informed of decisions <i>ex post facto</i> ; or attending meetings and listening in on decision-making, without speaking up
Consultative participation	Being asked an opinion in specific matters without guarantee of influencing decisions
Activity-specific participation	Being asked to (or volunteering to) undertake specific tasks
Active participation	Expressing opinions, whether or not solicited, or taking initiatives of other sorts
Interactive (empowering) participation	Having voice and influence in the group’s decision

Based on the study conducted, the author further provides a gendered analysis that looks at who does participate in the context of South Asia’s community forestry groups, what impact this has and what factors limit participation. In line with the levels of participation shown in Table 1, Agarwal (2001) points out that for women to participate effectively in decision-making in CFUGs, they first of all need to be (knowingly) members of the group themselves, as well as they need to be able to raise their voices in meetings and influence decisions to their advantage. Membership and attendance at meetings seem to be important aspects in this context of often male-dominant community forestry groups, as otherwise there is a risk for women of not being informed about decisions and thus not even being passive participants. Regarding consultative participation, not consulting women on local environment in forest restoration programs can for example lead to not

including gender differences in tree species preferences or women's preferences in relation to collection times of livestock fodder (Agarwal, 2001).

In relation to the generally acknowledged importance of participation, Agarwal (2001) considers a situation in which women are absent from decision-making in one way or another as a sign that a project is not successful in this regard. It is therefore important to look at the factors that can have an influence on women's participation. Agarwal (2001) identifies the six factors (a-f) shown in Table 2 that determine participation in a decision-making group.

Table 2: Factors that influence women's participation in community forestry groups in South Asia, derived from Agarwal (2001, pp. 1638–1640)

What determines participation?	Explanation
(a) Rules of entry	The criteria defining membership in [decision-making bodies] and awareness of changes in rules, e.g. number of people per household that are allowed as members
(b) Social norms (including gender segregation in public space, the gender division of labor, gendered behavioural norms)	They define who should [for example] attend and speak up at meetings; who should form the patrol; how men and women should behave in public, and so on
(c) Social perceptions	Perceptions regarding women's ability to contribute to [...] activities
(d) Men's entrenched claims and control over community structures	Entrenched territorial claims (e.g., to the forest)
(e) Personal endowments and attributes	For example educational levels, property status, marital status, age, etc.
(f) Household endowments and attributes	They define where women fall in the structural hierarchies of class and caste

Social norms such as gender segregation in public space, the gender division of labour or gendered behavioural norms need to be looked at a bit more closely in the context of this thesis.

For example, if meetings take place in village settings where women are not expected to go to according to social norms and therefore might lose respect, they may not feel at ease participating in meetings. Moreover, the timing of longer meetings often plays an important role in whether or not women are able to attend meetings. Because of the gendered division of labour, with rural women often responsible for childcare and household work, women can face significant time constraints that prevent them from coming to meetings or might result in meeting times being more convenient for men. Behavioural norms in terms of socially acceptable behaviour for women or men (e.g., how to speak, where to sit) can further create hierarchies and power relations at meetings (Agarwal, 2001).

Inaccurate social assumptions, as well as the typical lack of property or political connections of women, often mean that women's opinions carry less weight than

men's. This can make it difficult to influence a group's decision. Here, however, not only gender is an influencing factor, but also class/caste. Poor men of the lower caste as opposed to rich men of the upper caste are also at a disadvantage here. At the same time, belonging to a lower caste can also make a person less constrained by norms, which in turn can allow for greater mobility and a less restrictive way of expressing oneself (Agarwal, 2001).

It is important to note that the factors outlined here should not be seen as something that cannot be overcome. It should also be noted that regional and cultural differences may further influence women's participation, and that communities may encourage women's participation in different ways depending on their historical assumptions about gender roles (Agarwal, 2001).

Considering the study context of Nepal, it is particularly relevant for this thesis to consider the dynamics presented here.

4 Study context and background of study area

In this study, Nepal is used as a study area as its history in community forestry provides a useful context to better understand what the needs and values of local people are and what impacts forest restoration can have on local people and the landscape. The following chapter therefore provides an overview of community forestry in Nepal and the selected study sites.

4.1 Background on forest restoration and community forestry in Nepal

Nepal has been facing a decline in soil quality and forest cover in the Himalayas due to a state focus on converting forestlands into farmlands and extracting timber for export (Gautam, Shivakoti and Webb, 2004). As environmental concerns started coming up with this degradation of the Himalayas, the Nepalese mountain landscape has changed both ecologically and socio-economically since the 1960s/70s (Ojha, Persha and Chhatre, 2010). In this regard, 1956 can be mentioned as a key reference point in Nepal's history with nationalising forests (Gautam, Shivakoti and Webb, 2004) and the first periodic development plan, because targets for forest restoration were set for the first time (Laudari *et al.*, 2022).

With forests connected to people's lives in Nepal, this also has major implications on socio-economical aspects. According to Ojha, Persha and Chhatre (2010), more than 70% of Nepalese people rely on agriculture for their livelihoods and forests are used for subsistence purposes, especially in the hills (Ghimire and Lamichhane, 2020, p. 19). Forests provide fodder or grazing opportunities, are important for irrigation, directly provide nontimber forest products (food such as fruit and vegetables or medical plants) but also utensils and timber (Ojha, Persha and Chhatre, 2010).

After the approach of national control of forests to counteract their degradation failed (top-down, non-participatory approach with focus on commercial, fast-growing species), different programs started in the 70s/80s to tackle degradation of the Himalayas. The political landscapes regarding forest policy changed over the

years to more and more decentralization and participatory development in the 80s/90s, with community forestry increasing. The Community Forestry Program was introduced in Nepal both to conserve forests and to reduce poverty (Agarwal, 2001; Ojha, Persha and Chhatre, 2010). This kind of CBFM is today internationally referred to as a generally successful example and “a global innovation in participatory environmental governance that encompasses well-defined policies, institution, and practices“ (Ojha, Persha and Chhatre, 2010, p. v). As mentioned above, it thereby needs to be kept in mind, however, that challenges related to CBFM in Nepal can still be identified (Ghimire and Lamichhane, 2020).

Overall, research has shown that on average across Nepal, community forestry has resulted in better outcomes for reducing deforestation and poverty (Oldekop *et al.*, 2019). It has contributed to an overall increase in forest cover and supply of products and services in some areas (Gautam *et al.*, 2003; Ojha, Persha and Chhatre, 2010). Nearly 63% of the total population of Nepal is today being involved in community forestry (Pandey and Pokhrel, 2021) with women as the primary forest users. They therefore play an important role in forest management (Bhandari *et al.*, 2018).

Community forestry is overall seen as improving livelihoods in the rural areas of Nepal, as well as improving forest conditions and aspects such as income generation and stronger institutions at local level (Ghimire and Lamichhane, 2020). So, from the policy side, community forestry in Nepal is recognized and legally supported. Particular emphasis should be placed on the Master Plan for the Forestry Sector (MPFS) of 1989, a turning point in the history of Nepal’s forestry policies (Gautam, Shivakoti and Webb, 2004). Emphasis should also be placed on Nepal’s Forest Act of 1993, which divided forests into the categories of community forest, leasehold forest, government-managed forest, religious forest, and protected forest, but putting the highest priority on community forestry (Gautam, Shivakoti and Webb, 2004). The Forest Regulations of 1995 further defined legal rights of communities. Because of these policies, more rights are given to local people and restoration moved toward increased participation and benefits for local communities (Laudari *et al.*, 2022). The “transfer of forests to local communities for active management and utilization” (Ghimire and Lamichhane, 2020, pp. 18-19) is encouraged. It is also recognized that it is “difficult to protect and manage forests by the government alone“ through a top-down approach (Ghimire and Lamichhane, 2020, p. 18). While land is owned by the government, forests are transferred for protection and governance by Community Forest User Groups (CFUGs) as local-level institutions for forest management (Agarwal, 2009).

Further, various policies have legally backed women’s participation in decision-making (Bhandari *et al.*, 2018) and a part of the CFUGs’ income needs to be used for poverty reduction and women’s empowerment programmes within each user group (Ghimire and Lamichhane, 2020).

Thus, Nepal can be seen as one example for generally successful community forestry with a political landscape that overall supports direct participation and enables the empowerment of local communities as well as strong local-level institutions (Ojha, Persha and Chhatre, 2010). However, as written above, deeper social structures can have an influence on the participation of different groups of society, including gender norms.

4.1.1 Institutional landscape in community forestry in Nepal

Due to the Forest Act of 1993, authority for making decisions about the management of forest resources was given to CFUGs, local institutions that are formed by villagers who share common forests (Ojha, Persha and Chhatre, 2010). The Federation of Community Forestry Users Nepal (FECOFUN, 2023) now reports more than 22,266 CFUGs and other CBFM groups.

Thereby, the ownership of the forests remains with the state, but communities have the right to use the forests and to decide on their management. In order to do so, communities need to, first, submit a constitution in accordance with legal requirements to the local district forest office (DFO). Secondly, an Operational Plan must be prepared by the CFUGs, often done with the assistance of forestry officials and/or non-governmental organizations (NGOs), which sets out management objectives, as well as activities, rules and limits for the use of forest products. Both need to be approved by the DFO (Ojha, Persha and Chhatre, 2010). An overview of CFUG rights is summarized in Table 3 below.

CFUGs typically include a general body consisting of members from an entire village or the community of forest users. The community of forest users may thereby include members from several *toles* (settlement between hamlet and village size). Several CFUGs can be responsible for non-overlapping sections of one forest (Agarwal, 2009). The main decision-making body of such a local institution is the executive committee with about 9-15 members. The executive committee decides in coordination with the general body on regulations for forest use, opening times of the forest, or methods of protection. It is responsible for making day-to-day decisions on forest management in the name of the whole CFUG. In terms of forest restoration, the forest is often first closed off (forest closure) by the communities and the use of the forest is restricted (Agarwal, 2009; Ojha, Persha and Chhatre, 2010).

Policy provisions in Nepal require a female representation of initially 33%, now 50% in the executive committee of the CFUG (Pandey and Pokhrel, 2021). Although Nepal's Community Forestry Programme has made great progress in institutionalising several important rights, including in decision-making, it should be noted that inequalities continue, and ownership of the forests remains with the state. Forest bureaucracy or techno-bureaucratic hurdles (for example, in the preparation of operational plans) that need to be met can complicate the

management of forests for communities. Regulatory instruments and the need for approval by the DFO can restrict the rights of communities. Elite capture (of benefits and decision-making processes) is also an issue that exists and can influence who benefits from community forestry and who dominates decision-making (Ojha, Persha and Chhatre, 2010).

Table 3: Overview of CFUG rights under the Forest Act (1993) and Forest Regulation (1995), adopted from Ojha, Persha and Chhatre (2010, p. 8)

Right to self-governance	Right to forest management and utilization
<p>Communities have rights to form a CFUG as per their willingness, capacity, and customary rights.</p> <p>Community forest boundaries will not be restricted to existing administrative or political boundaries.</p> <p>Government can dismantle the CFUG if the latter is found to engage in large scale deforestation but it is the duty of the government to reconstitute the CFUG.</p> <p>CFUGs can elect, select or change executive committee anytime.</p> <p>CFUGs can punish members who break their rules</p> <p>CFUGs can amend or revise their constitution any time.</p>	<p>There is no limit to the forest area that can be handed over to communities.</p> <p>CFUGs can make optimal use of their forest by growing cash crops together with forest crops.</p> <p>CFUGs can mortgage their standing forest products with financial institutions to obtain loans.</p> <p>CFUGs can utilize their funds for any purpose (but 25% of income from forest must be spent in forest development).</p> <p>CFUGs can freely fix prices and market their forest produce.</p> <p>CFUGs can establish enterprises and make profits.</p> <p>CFUGs can seek support from any organization.</p> <p>CFUGs can raise funds by various forestry and non-forestry means with all income going to group funds with no requirement for sharing financial revenues with government.</p> <p>CFUGs can invest in any areas, persons or development activities according to the decision of CFUG assembly.</p>

4.1.2 Agrarian change, out-migration, and forest use in Nepal

As previously outlined, community forestry in Nepal is seen as an overall positive example of the inclusion of local communities in reforestation practices. However, various aspects and dynamics of change continue to impact community forestry and landscape changes. Out-migration and income diversification can for example have an influence on the forestry sector (Chhetri *et al.*, 2021). This is shortly addressed here.

Out-migration (seasonal or permanent) has become an essential livelihood strategy for families in the middle hills of Nepal (KC *et al.*, 2021). Severe drought and water scarcity that affect agricultural production (and people's ability to

support themselves), changing socio-economic circumstances with farmers moving away from traditional farming or the wish to improve livelihoods in addition to farming can be reasons for rural people to move away from villages to make an additional income. Also the wish for better education can be a reason for people to out-migrate (KC *et al.*, 2021).

Out-migration can thereby lead to a labour shortage for agriculture in villages, which might have an impact on land use and how much land can be cultivated. The ability of different households to cope in terms of self-sufficiency hereby differs. At the same time, however, changes in land-use because of migration can also have an impact on forests and tree cover (Chhetri *et al.*, 2021). For example, uncultivated land might be converted into grassland or private forest (Marquardt, Pain and Khatri, 2020; Chhetri *et al.*, 2021). Regarding community forestry, this is an important point to consider, as the production of tree fodder may change from community forests to private farmland. Having more trees on private land can lead to a decreased use of community forests as people might start using private land to meet their needs of forest products (such as firewood, fodder or timber). Other reasons for a decline in the use of products from community forests can for example be a decreased number of resident family members and livestock, improved access to other energy sources instead of firewood or improved stoves, forests that have become denser and less easy to access, or restrictions on the use of forest products from community forests (KC *et al.*, 2021).

While values and priorities toward community forestry might shift in some cases, restrictions on the use of forest products can however also pose problems for local resource users of poorer households. Having a limited amount of land (and therefore trees) can still result in relying heavily on forest products from community forests (Khatri *et al.*, 2018). When thinking of the role that community forestry might play also for restoration approaches that need to provide benefits for people, this should be considered. Overall less dependency of rural communities on community forest products can also contribute to less intensive or infrequent forest management (KC *et al.*, 2021). At the same time however, while relationships between remittances and land use are complex, it can be said that out-migration and reduced labour-availability can be a common contributor to land use shifts and even forest regeneration (less pressure on land). Outcomes can hereby be very site-specific.

While positive regenerating outcomes might be seen from community forestry, it should also be noted that restoration can create new problems for local resource users, such as complicating crop management. Bhattarai (2020) for example found, that expanded and restored forest areas near villages can create more shelter for wildlife. Wildlife therefore being closer to the agricultural land of local people can present difficulties for communities to protect their crops (which they depend on for their livelihoods) from damage (e.g. by monkeys).

4.2 Study area: Ramechhap Municipality, Nepal

To examine what we can learn from community forestry projects for people-centred restoration in terms of inclusion of women and creating local social benefits, two study villages in Ramechhap Municipality with a history of community forestry were selected in the Mid-Hills (also middle hills) of south-eastern Nepal. Ramechhap Municipality is part of Ramechhap District, located east of Kathmandu. A map showing the location of Ramechhap Municipality is shown in Figure 3.



Figure 3: Overview map of Nepal showing the location of Ramechhap District (colored in red), and therein Ramechhap Municipality (adapted from NordNordWest (2019) & EHRP Nepal (no date))

Research was conducted in the two selected study villages Khanidanda and Charghare, belonging to Ward no. 5 (Rampur), in the south of Ramechhap Municipality (see Figure 4). Similarly to what Marquardt, Pain and Khatri (2020) reported in their study, both villages can be considered as “typical” mid-hill villages, experiencing drought stress and high levels of out-migration.

In the Mid-Hills of Nepal, agriculture has traditionally been based on subsistence farming. Small-scale, labour-intensive agriculture has been an important source of livelihoods for the local population. Forests and livestock are essential components of complex agricultural systems (KC *et al.*, 2021). Also Khanidanda and Charghare village are mainly covered by forest (providing e.g. firewood, fodder, leaf litter or timber), shrubs/bushes and cultivated land (see Figure 4). However, various aspects have an impact on agriculture in Nepal. These include severe drought, increase in temperature, shorter monsoon season with heavy rains, severe flooding or landslides (Joshi and Dongol, 2018).

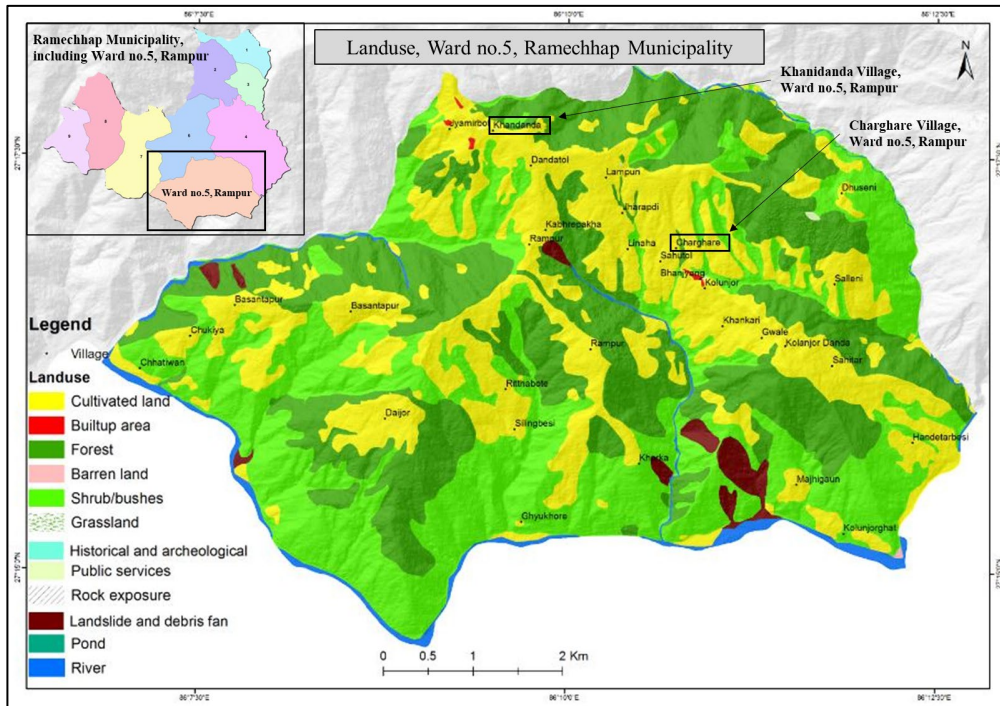


Figure 4: Overview map of the location of the study villages and land use in Ward no.5, Rampur, Ramechhap Municipality (adapted from Ramechhap Municipality (2019) & Nepal Archives (2016))

Ramechhap district is one of the areas in Nepal that are most affected by drought (Shrestha *et al.*, 2015). For Ramechhap, weather and climate data from 1991 to 2021 (Climate Data, 2022) shows an average annual temperature of 19.7 °C and around 1930 mm of precipitation yearly, whereby the heaviest rainfalls occur in the summer months between May and September (monsoon season). The average precipitation peaks in July with 612 mm, November is the driest month with an average of only 9 mm. Mean temperatures vary between 12.1 °C in January and 23.9 °C in June. Data for Manthali, located just about 20 to 27 kilometres away from the two study villages, indicates a particularly dry area. Here, between 1992 to 2008, an average of only 304 mm and 210 mm of rain fell in July and August, respectively (Shrestha *et al.*, 2015).

Severe drought and water scarcity, with a slowly increasing trend in the number of dry months lead to agricultural losses in Ramechhap district. A decline in agricultural production in the area is also reported as rainfall becomes more erratic and soil moisture decreases (Joshi and Dongol, 2018). This is particularly problematic for communities who depend solely on production from rain-fed fields. Another consequence can be that livestock numbers decrease in households due to drought and dried up water sources or complete land abandonment (Joshi and Dongol, 2018). Out-migration (seasonal or permanent) has therefore become an essential livelihood strategy for families in the middle hills of Nepal (KC *et al.*, 2021). Also in Ramechhap district, a high percentage of (particularly) men who out-migrate can be observed (Giri and Darnhofer, 2010b).

5 Methods and data

The following section on methods and data deals with the research strategy and data collection of the empirical material of this study. Data documentation and analysis, as well as ethical awareness and reflexivity of the researcher, including some comments on data quality and limitations, are subsequently addressed.

5.1 Research strategy and qualitative data collection

To examine what we can learn from community forestry for more people-centred restoration approaches and what specific aspects local resource users value, a case study in the two local communities of Charghare and Khanidanda in Ramechhap District, Nepal, as study sites was chosen as a qualitative research approach.

A case study is about empirically gaining detailed, intensive knowledge about a specific single case or a small number of connected cases in a specific context and often includes several data collection methods (Robson and McCartan, 2016, chap. 7). The main component of the primary data collection for this study was conducting semi-structured individual interviews. One-to-one and face-to-face interviews (with an additional translator) were chosen to explore values and perceptions of participants as they have the potential to deliver rich in-depth insights (Robson and McCartan, 2016, p. 287).

In addition, two key informant interviews (KIIs), one in each of the villages shortly after arrival, were conducted to obtain an overview and additional information about the research environment and study site. The first KII took place with a previous ward member of Ramechhap Municipality and a researcher working in the village. The second KII was conducted with the chief of the community forest. During the KIIs, local conditions such as village size, composition of the village community, the main livelihoods, existence of different community forests, rules or the main forest products used were discussed. In the second half of the study, a participatory resource map, a focus group discussion (FGD), and a field observation were added to the methods to better understand the situation.

During the data collection, a total of 2.5 weeks in February 2023 were spent in the study area with a team of altogether four persons (two female researchers, including the author of this thesis and two female field collaborators, who could

assist with translations between English and the local language Nepali, as well as explain local contexts). During this time, the entire team lived directly in the villages in order to better understand the local context. The interviews, as well as informal talks, were carried out in the local language Nepali and main points were translated already during the conversation in order to ensure the possibility of follow-up questions and inclusion of the main researcher in the discussions. All individual interviews as well as the FGD were recorded with the recording function of smartphones.

5.1.1 Ethical considerations

Ethical considerations form an inalienable part of research, especially when dealing with socially sensitive topics or when research involves participants who belong to vulnerable groups. This includes ethical reviews by boards and committees, identifying potential problems through preliminary analyses, and avoiding unintended consequences to the greatest extent possible. It is recognized that value-free or value-neutral research that merely objectively describes what is, is difficult to achieve when the research engages with people, emotional aspects, or issues that are value-laden (Robson and McCartan, 2016, chap. 10). Therefore, this chapter addresses ethical awareness and considerations for this study.

Several aspects were addressed during the research process. Before conducting an interview, it was made sure that the potential participants were available and would be willing to talk for a while (informed consent). A few minutes before the interviews were usually spent on rapport building with participants, on making introductions and verbally explaining the character of the study. It should be said that the scope of information that can be provided before consent is limited. Much emphasis was nevertheless placed on explaining that the study is for educational purposes and research, in order to avoid building up any expectations that respondents might otherwise have. During the introduction, it was ensured that respondents were aware that they would remain anonymous in written reports and that personal information would be kept confidential. Care was also taken to assure that respondents had the right to withdraw, and that questions or concerns can be raised at any time, as well as that respondents knew they do not have to answer if they were uncomfortable with any questions. It was important to communicate that no right or wrong answers exist, but that the emphasis would be on the respondent's own experiences, values, and perspectives. Before the start of each interview, participants were asked for their consent to be recorded and to take notes.

One aspect that can only be controlled to a limited extent is the way in which the translations were carried out. It can be said, however, that the ethical considerations described here were discussed in the team with the research collaborators before the start of the field study, and that their importance was repeatedly emphasized throughout the field work.

5.1.2 Semi-structured individual interviews

Semi-structured individual interviews were chosen as the primary component of this study to capture subjective perceptions of individuals. In semi-structured interviews, an interview guide typically is used as a checklist for the topics that are to be discussed, with predefined formulations and order for the questions. However, these may be adapted depending on the course of the interview, and additional unplanned questions may be asked to follow up on the interviewee's statements (Robson and McCartan, 2016, p. 285). The semi-guided interviews were chosen to allow as much flexibility as needed in the answers, for selected blocks of topics.

Interview Guide

The interview guide developed for this study (see Appendix 1) contains mainly open-ended questions and is divided into the following thematic blocks, which are grouped together in terms of content:

- Introduction
- Warm-up: Background information about the participants and their livelihoods
- Thematic Block 1: Daily tasks of participants and forest use
- Thematic Block 2: Participation in decision-making in CFUG meetings
- Thematic Block 3: Feelings, beliefs and attitudes towards the landscape and forest use
- Cool-off and closure of the interview.

The interview guide was adapted slightly as the number of conducted interviews increased, some questions were rephrased to make them easier to understand for respondents. Prior to the start of the field trip, the interview guide was discussed in detail and translated into Nepali to ensure the accuracy of terminology and, if necessary, to adapt the way questions might be asked to the cultural context.

As the main aim of the interviews was to explore values and perceptions of the participants, it made sense to intentionally ask open-ended questions. Open questions offer the advantage of flexibility, allow for in-depth questioning and clarification of misunderstandings, and generally facilitate cooperation and rapport. They also help to assess the interviewees' beliefs and values as precisely as possible, and give room for unexpected answers, which is all particularly useful here (Robson and McCartan, 2016, p. 289).

The interview guide contained a total of 40 questions, some of which were follow-up questions, which is why not all questions were always asked, but reactions and follow-up questions were adapted according to the circumstances. Depending on the course of the interview, Thematic Block 3 of the guide could be discussed before Block 2. In a few cases, Thematic Block 2 was entirely dropped in case of lack of time on the part of the interviewees.

Sampling of interview respondents

In total, 23 interviews were conducted with female individuals. Since women as the main users of the forest were intended to be interviewed, participants of this study were selected on a purposive basis (Robson and McCartan, 2016, p. 281), according to their gender, as well as their interest and availability to be interviewed. At the same time, to capture different socio-economic characteristics, consideration was given to ensure that participants from different age groups were included. An attempt was made to sample across caste. This, however, proved to be relatively difficult, as a large majority of Newar people lived in the study sites, and it was not always possible to locate where women from different castes might be found. In some cases, snowball sampling as a particular type of purposive sampling was used if interviewees pointed to other members of the community who could be interviewed (Robson and McCartan, 2016, p. 281). An overview of the socio-economic characteristics of respondents is presented in the following subsection. Because of purposive sampling, a statistical generalization beyond the sample cannot be achieved. There might be, however, some indications of mechanisms that operate in particular contexts or that might be transferable to other cases in similar contexts (Robson and McCartan, 2016, p. 166).

The interviews were between 29 minutes and 80 minutes long. Typically, they took place outside the participants' homes, sometimes also in the surrounding agricultural land, while they were carrying out some of their daily tasks. Oriented around the general daily routines of women in the communities, two interviews per day were usually feasible.

Socio-economic characteristics of respondents

As said, individual interviews were conducted with 23 female respondents, 9 of them in the first village of Charghare, 14 interviews in the second village of Khanidanda. All the women were Indigenous and all but 2 Tamang women were Newar (see Table 4). Education levels ranged from no education for the majority of respondents (some of whom had received additional women's education, which allowed them to write their names) to one respondent who reported currently being in the 12th grade (see Table 4). The interviewees were between 22 and 60/70 years old (not all participants were able to give their exact age). Most of the interviewed women were in their 30s (see Figure 5), although in Charghare the average age was clearly higher. Here, the majority of interviewees was between 50 and 59 years old, with none of the respondents in their 20s. In Khanidanda, the majority of respondents was in their 30s.

Table 4: Overview of socio-economic characteristics of respondents (n=23)

Total: n=23	Charghare (n=9)	Khanidanda (n=14)
Age of Resp.	34 – 66 years	22 – 60/70 years
Ethnicity	Indigenous	Indigenous
Caste	Newar (7) Tamang (2)	Newar (14)
Educational level	No education (6) Up to grade 2 (1) Up to grade 5 (1) Up to grade 12 (1)	No education (6) Up to grade 4-5 (3) Up to grade 7 (1) Up to grade 10 (4)
Marital status	Married, living with husband (6) Married, husband out-migrated / passed away (2) Married, living alone (1)	Married, living with husband (11) Married, husband out-migrated (3)
Number of children	2 – 6 children	1 – 9 children

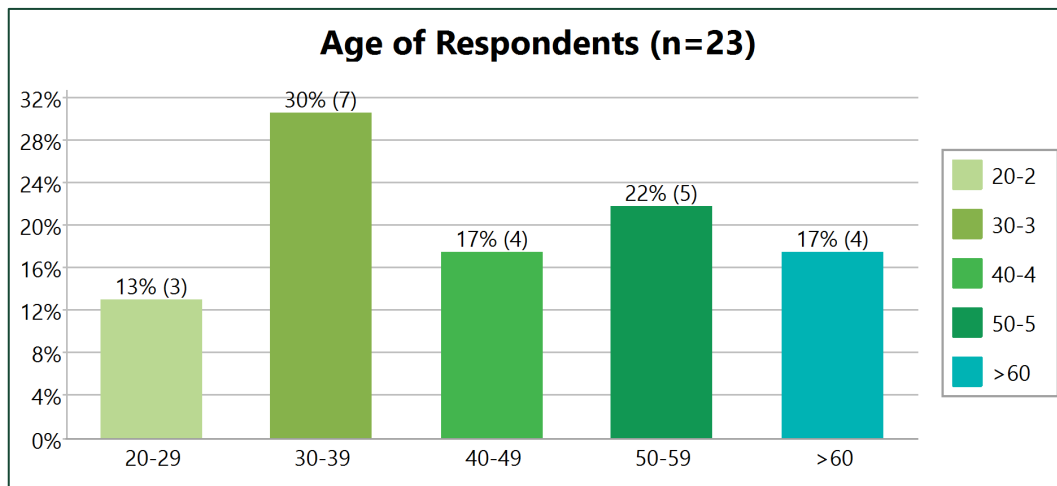


Figure 5: Age distribution of respondents (n=23)

Regarding marital status and living situation, all women were married, and the majority of the participating women lived with their husband and at least one child (both minors and adult children). In some cases, living with parents-in-law was also reported, which can be seen as common cultural/social practice for women in Nepal. Six of the participating women lived at home without their husbands for various reasons (e.g. out-migration, husband had left or passed away), with one of those living completely alone. The living situations were generally asked about, as even when women live alone because their husband had left them, they often continue to consider themselves married. All participating women had at least one child, with a maximum number of nine children. An even higher number of more unmarried, alone, or elderly women was difficult to achieve in the time given but

may of course have affected the extent to which opinions of more marginalised women are represented in this thesis.

Although most of the participating women lived with their husbands, signs of out-migration in the villages were clearly noticeable. Over half of the participants spoke of other villagers who had moved to cities (e.g. Kathmandu), of husbands or family members who had migrated to Kathmandu or abroad for work (e.g. Japan, Malaysia, Kuwait, Saudi Arabia), or of sons who had moved to Kathmandu for education. In the KII in Charghare, for example, the information was given that out of 25 households, at least one male of 23-24 households is out-migrated. A woman in the same village also reported that it will be hard to find young married women to talk to in the village, since they all went away to work. It can thus be concluded that out-migration, as described above, is also in the study villages an important livelihood strategy (Chhetri *et al.*, 2021; KC *et al.*, 2021).

5.1.3 Participatory resource map

To obtain a better overview of the typical arrangement of settlements, forest areas, grasslands, water resources and general access to resources, a participatory resource map was created with the help of community members in Khanidanda (shown in chapter 6.1, Figure 7). This method of data collection was included after summarizing initial findings from the field visit to Charghare. Creating a participatory resource map for the second study village was intended to gain more insights about village boundaries and access to resources and helped to further situate and understand the respondents' use of the landscape and their perspectives and interests. Initial information for the resource map was provided by a ward member who works for children's and women's rights. The resource map was then drafted with the ward head of Ward No. 5 (Rampur) of Ramechhap Municipality and some other villagers. The drawing of the resource map with boundaries, settlements, different resource areas and services was followed by a discussion session to fill gaps in understanding and gain a good overview of the village area.

5.1.4 Focus group discussion

A further source of information was to be a FGD with members of the executive committee of a CFUG. FGDs as group interviews generally have the advantage that they can be used very flexibly and be set up quickly as an in-depth method. It is important to consider group and power dynamics/hierarchies, as these can influence who speaks and, above all, who might not speak (Robson and McCartan, 2016, chap. 12). The discussion for this study took place in Khanidanda village with 7 participants (4 female, 3 male) but lasted only about 25 minutes due to time constraints on the part of the participants. As it was therefore not possible to go into much depth, the FGD is used rather for triangulation purposes than for a separate

evaluation. As during the individual interviews, the roles were split into interviewer and a person translating, although translations were facilitated by both research collaborators this time. Notes and audio-recording were taken again.

5.1.5 Field observations

Further observations during the field work helped to understand and, especially, verify the context of information that was collected during individual interviews. Such observations included, for example, daily tasks performed by women, living situations, the surroundings and the participants' own land, livestock situations as well as different parts of the landscape in the village, where participants for example use to collect forest products. A focused observation session could be carried out by accompanying one of the interviewees on a trip to her private grassland, that lasted slightly over 2 hours. In particular, it was possible to confirm the time needed to complete such a trip, to make own experiences of grass cutting, or to locate and verify places outlined in the resource map. This walk to the grassland also exemplified the women's daily task of cutting grasses. With the help of photographs and written notes, these observations could be captured (see chapter 6.2).

5.2 Data documentation and analysis

5.2.1 Records of the interviews and transcribing process

As mentioned above, the interviews as well as informal talks took place as a translated conversation between the interviewer (asking questions in English), a field collaborator (interpreter, translating to Nepali), and the respondents (answering in Nepali). To be able to follow the conversations and ask follow-up questions, the main points of what was said were translated back to English during the interview. Notes on these main points were taken by both the interpreter and the interviewer during the conversations and were discussed throughout the course of the field trip. All interviews were recorded with the recording function of smartphones after the consent of the interviewees was given. 20 of the 23 recordings of individual interviews, as well as of the two KIIs and the FGD, were transcribed in English by the interpreter according to a priority list after the completion of the field trip. Possible uncertainties about meanings or how certain statements by respondents should be understood were clarified with the interpreter before the data was analysed.

5.2.2 Coding and qualitative data analysis

Preliminary findings were first summarised and discussed with researchers from the Southasia Institute of Advanced Studies (SIAS) in Kathmandu, who have experience in the study region and could assist with contextualising the findings. This process was intended to help familiarise with the data and obtain initial ideas about possible themes before exploring the data in detail during the coding process.

For the actual data analysis, the Qualitative Data Analysis Software “MAXQDA Analytics Pro 2022” was utilised. The software was mainly used to facilitate the coding process and to visualise data. No automatic coding function was used, instead coding was done manually. It is acknowledged that for qualitative data, there is “no clear and universally accepted set of conventions for analysis corresponding to those observed with quantitative data” (Robson and McCartan, 2016, p. 460). Nevertheless, there are ways to deal systematically with qualitative data. For this thesis, orientation was taken based on a framework suggested by Robson and McCartan (2016) and a thematic coding approach was used.

In a thematic coding approach, usually the data or segments of the data (e.g., words, phrases, or paragraphs) relevant for the analysis are coded and given a label, codes with the same label are then grouped into a theme. The themes then serve as the basis for further data analysis and interpretation (Robson and McCartan, 2016, chap. 18). In the analysis of this study, elements of potential interest were identified and coded. Codes and sub-codes emerged both from prior interaction with the data and preliminary identified findings that led to a set of codes to start with, as well as through further interaction with the data (inductive coding). Adding comments and using reflections made in the field notes helped to identify patterns and to stay focused in the data analysis.

Several aspects can be helpful in identifying themes. These include repetition, specific terms used by participants, similarities and differences, but also missing data. The themes should then be used to examine what the data is indicating. This includes checking whether different patterns seem plausible. Frequency counting, comparisons or exploring factors underlying the processes being studied can also help to make sense of the data (Robson and McCartan, 2016, chap. 18). For this thesis, tables, bar charts and column graphs, among others, but also telling quotes were used to help understand the data.

5.3 Data quality, limitations, and reflexivity of the researcher

Since the “quality of a flexible design study depends to a great extent on the quality of the investigator” (Robson and McCartan, 2016, p. 148), data quality of the data, some limitations, and reflexivity of the researcher are briefly discussed below.

This study is based exclusively on qualitative data and is limited to site-specific data generated in two communities in Nepal that serve as a case study. The case study will serve to gain insights for chosen aspects regarding people-centred restoration, as expressed in the aims and research questions.

Generally, different methods were used in this study for triangulation purposes. In the interviews, attention was paid to following general advice on conducting interviews, such as listening more than speaking, asking clear but open questions, and remaining interested even in the case of repetitive information. In interviews, it is also important to capture the information without bias and to be aware of the mood of the respondents, as well as to understand the context (Robson and McCartan, 2016, chaps 7 & 12). This aspect was naturally only possible to a limited extent due to the circumstance that the interviews were conducted in Nepali. It should therefore be noted that in this respect, data relies to a large extent on the interpreter’s impressions and translations. To what extent these are unbiased is difficult to determine. Nevertheless, it can be said that an attempt was made to clarify as many of these aspects as possible, also in discussions before the start of the field work.

As described previously, questions during the interviews were generally asked very openly. However, due to the inevitable circumstance of not having full control over how questions were translated during the conversation, it was not always possible to completely avoid having implying elements that might have led the respondents to answer in a certain way. During the fieldwork, great effort was made to revise or rephrase the questions in feedback rounds with the field collaborators so that questions were as minimally guided by examples as possible. However, it was not always feasible to recognise and discuss such points immediately, as some aspects only emerged later from the transcripts. It should therefore be recognised that such steering of questions (deliberately or not) can have an influence on what aspects were included by respondents when questions were answered.

In addition, it must be emphasised that the research team, despite the two research collaborators who were from Nepal, had an outsider’s perspective. Apart from the obvious aspect of different languages for the researchers, this could be observed in a variety of situations. For example, some respondents sat on the floor during the interviews and when attempting to sit down with them, they insisted for the researchers to sit on chairs or mats. This sometimes led to unwanted situations in which sitting physically higher up created a feeling of not being able to be on the

same level. In addition, it was always necessary to make sure that the respondents' expectations were clear. For example, respondents often asked for solutions to agricultural or health problems, or it was emphasised that other researchers had already been there to ask questions about various challenges. Such signs of researcher fatigue indicated that once again more attention needed to be paid to the role of the research team.

A gender dynamic could also be observed when husbands participated in the conversations. When this happened, women tended to become quieter and husbands answered more questions, which on the one hand allowed an observation of gender dynamics and who might be more in charge in the household, but on the other hand it sometimes made it difficult to really get to hear the views of the women. To avoid such limitations, efforts were generally made to meet women on their own. In cases in which the husband came home in the middle of the conversation, joined in and answered questions instead of his wife, an additional effort was made to ask the female respondent very specifically whether she felt differently or what her perspectives were. Still, it needs to be recognized that the presence of a male person in conversations can have an influence on how open some answers were, or how many critical aspects come out.

6 Empirical findings and analysis

In the following chapter, the empirical findings and analysis of results of this study are presented. An overview of the conditions in the study villages is given first to help conceptualize the daily tasks of the villagers.

6.1 Village overview of Khanidanda and Charghare and livelihoods of respondents

The areas where interviews were conducted consisted of around 25 households (125-130 residents) in Charghare, and approximately 100 households (800-900 residents) in Khanidanda, according to estimations in interviews with key informants and other individuals.

Considered “typical” mid-hill villages in Nepal, subsistence farming is an important part of the livelihoods in the two study villages. In line with the description of landscape categories by Marquardt, Pain and Khatri (2020), shown in Table 5, *bari* fields (rain fed crop land), as well as *kharbari* (private grassland) were mainly identified in the two study villages, in addition to the homestay of local residents. When asking about the main livelihoods of local women, all 23 respondents mentioned crop farming/agriculture and animal rearing as their occupation, besides household activities. Regarding agriculture, maize, various types of local lentils and beans (*daal*) as well as millet were mainly mentioned as typical crops in the region. The lentil and bean varieties that seem to be mainly grown are *Masyang* (rice bean), *Gahat* (horse gram, lentil), *Rajhma* (*Rato Bodi*, kidney bean), *Sosta* (bean) or soyabean. Also vegetables such as garlic, onion, green leafy vegetables (like *Raayo ko Saag*, mustard greens), spinach, coriander, fenugreek, ginger, turmeric, potatoes and some mustard were mentioned. Cauliflower and cabbage seem to be grown in smaller scale.

In terms of animal husbandry, most respondents owned goats (up to 23 goats), up to 3 buffaloes (also to milk) and chicken (up to 20). Especially in Khanidanda, participants often reported to have 1-2 oxen (mostly mentioned to plough the field). Some respondents had up to 2 cows or bulls. In addition to that, one participant also mentioned rearing pigs in the past, however, she stopped doing this, because she receives less money for it.

Table 5: Description of landscape patches for Rampur in Ramechhap, adapted from Marquardt, Pain and Khatri (2020)

Patch	Description	Contribution to household economy
Private Land		
<i>Khet</i> : Irrigated cultivated land	Irrigated crop land, paddy fields on relatively gentle slopes or flat lands	Food crops, fodder (crop residue)
<i>Bari</i> : Non irrigated cultivated land	Rain fed crop land, terraced fields in slopes with different level gradients	Food crops, fodder, forest products
<i>Kharbari / Kharpakho</i> : Land where you produce thatching material and fodder	Less productive slope areas or bari land managed for grass for thatching and fodder and fuel wood	Fodder, fuelwood
<i>Karesabari/ghuran</i> : Homestead	Intensively managed area around houses and stables	Food crops (vegetables), fruits, spices, medicinal plants, fodder
Public land		
<i>Gas baan</i> : Slopy border land of community forests	Literally meaning fodder forest. Community forest edge areas, managed by individual households for fodder production, a combination of kharbari and slopes with bamboo and trees	Fodder, forest products
<i>Baan</i> : Forest	Community forest areas managed by community forest user group	Fodder, fuelwood, timber and minor collection of food and medicinal plant

Respondents predominantly practice subsistence agriculture, although some of the interviewed women also sell crops (9 of 23 respondents) or livestock like goats (8 of 23 respondents) to a lesser extent. Many of the interviewees emphasized that they only had *bari* fields, and that *khet* land (irrigated fields, see Table 5) was not possible to have in this area. As mentioned above, this is an important point to consider as food and fodder depend on rainfall for production and can become a risk for people's livelihoods in such an area prone to drought.

Other livelihoods mentioned by single respondents were helping in a health centre, housekeeping in the local school, working in a store, producing local alcohol or sewing clothes. Some cooking oil and salt, or spices are bought from the market. When asking about the main source of income, respondents often reported relying on their husbands' income, e.g., from working in construction or in a store, but also from remittances from work in Kathmandu or abroad. Selling milk, crops or animals also seems to be among the important sources of income. Another source of money for participants is the support of e.g. adult children or governmental allowances.

In addition to *bari* fields and *kharbari*, community forest areas (*baan*, see Table 5) managed by CFUGs additionally play a major role in the two study villages.

Cooking in the villages is done using fuelwood, although gas stoves for cooking are playing an increasing role. It is hereby not possible to say to what extent other energy sources play a role compared to fuelwood consumption. In this regard, K C *et al.* (2021) found that the total amount of fuelwood consumption in their study area in the middle hills of Nepal decreases due to access to other energy sources. Thus, also the collection of fuelwood from community forests decreases, which could also be true for similar areas in the middle-hills.

In line with the climatic aspects mentioned in chapter 4.2, an impact on agriculture and livelihoods, such as decrease in the productivity of the land due to water scarcity, was also reported in the two study villages of Charghare and Khanidanda. Villagers mentioned that it has been 6 months since there had been the last rainfall. Water scarcity was further exacerbated by the 2015 earthquake, with water sources drying up. Other challenges include problems with wildlife, as crops are for example destroyed by animals such as monkey, deer, porcupine or goral.

Due to these issues, high levels of out-migration were reported in the study villages, as described before. Remittances from out-migrated family members appeared to be an important source of income for families in the study villages. Men for example were reported to have out-migrated to urban areas or abroad, often to Japan or to Gulf countries. In addition, villagers pointed out that more and more women are also leaving the villages. Similar to how KC *et al.* (2021) noted, however, marriage here should not be included within the definition of a migrant household, as it is a common cultural/social practice for women in Nepal to move away from their family home in order to live with their partner in their household after marriage. It was rather reported that when the men are abroad, families are likewise inclined to move to the city to receive education for their children. In this context, because of out-migration and people abandoning their previously cultivated land, wildlife is reported to move closer to residential areas because they can no longer find food in the agricultural land located further away.

Regarding services in the two study villages, both are connected to electricity and many households have connection to the road network via a dirt road and a regular local bus. In addition, both villages have a school (secondary school in the case of Charghare, see Figure 6) or primary school (in the case of Khanidanda).

Through interviews and validated by researchers from SIAS, who have already conducted research in the study area, it could be confirmed that for people living in both Charghare and Khanidanda, a health post is available mainly in Rampur, a village in Ramechhap Municipality which is located about 30 minutes walking distance from Khanidanda and over an hour walking distance from Charghare. A small medical care facility was further established in Charghare.



Figure 6: Photograph of Shree Janta Higher Secondary School in Charghare village, Ramechhap, Nepal (photo taken by the author, © Tina Jahn, 2023)

In both villages, it is possible to buy daily necessities from small stores, such as groceries and stationery. In addition, a water lift system, pumping water from water tanks into the village with the help of electricity, was established in both villages, supported by the Red Cross Society. Especially the drying up of water sources after the 2015 earthquake makes the people in the villages dependent on the water lift.

The two villages differ too little in structure and geographical characteristics to present them in a fully differentiated way, or even to contrast them. In the following, the structure of Khanidanda as an example of a typical village is therefore shown on the basis of a participatory resource map that was developed with participants in Khanidanda.

Overview of Khanidanda Village, Ramechhap District, Nepal

As described above, Khanidanda village consists of approximately 100 households, distributed in 6 settlements within the village (*tole*). Centrally on the participatory resource map below (see Figure 7), Khanidanda Road can be seen, which marks the highest point of the hill on which the village is located. Also, centrally in the village on this main road, the store as well as the bus stop for local buses can be found. Not far from Khanidanda Road is the primary school. According to the discussion during the mapping process, the closest secondary school is in Rampur, Ramechhap Municipality, around 30 min walking distance downhill, south-east from Khanidanda village.

Towards the north and south of the main road of the village there are slopes down to the rivers *Dhamini Khola* in the north and *Lamidada Khola* in the south. In the north are also the first two water tanks (*pani tanki*), which pump the water from the source through drinking water pipelines of the red cross to the village. A second water tank (*pani tanki*) is located in the south by the river *Lamidada Khola*.

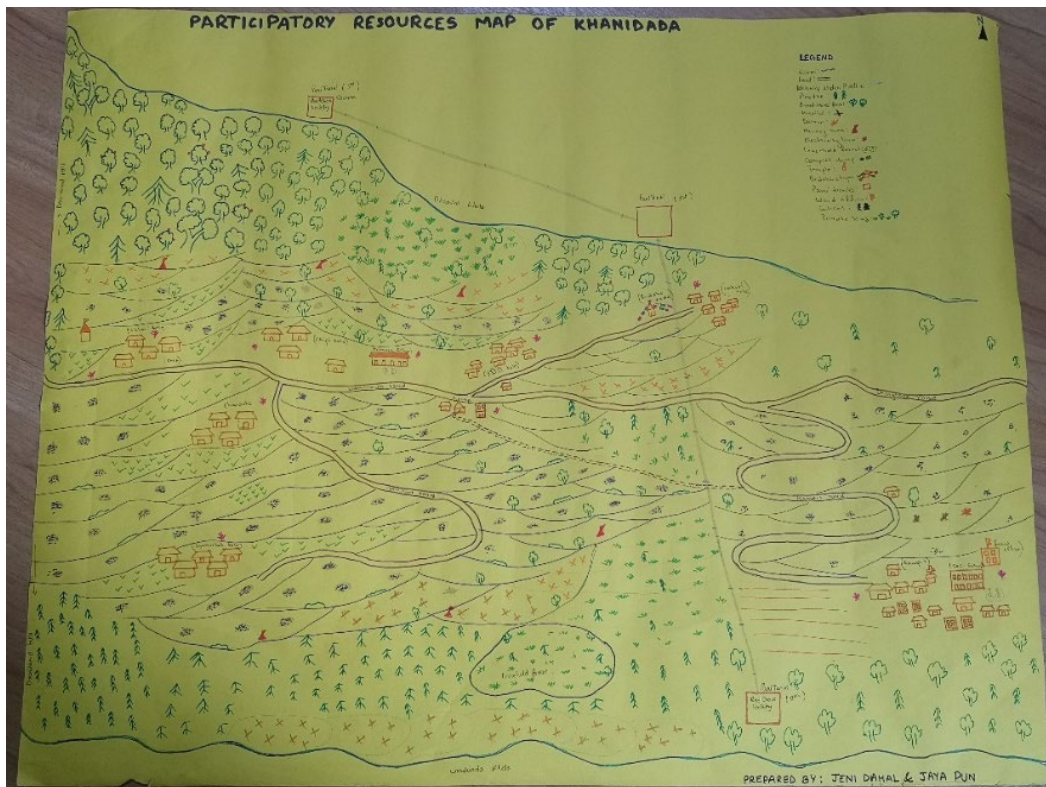


Figure 7: Resource map of Khanidanda, developed during a participatory resource mapping process in Khanidanda village, Ramechhap, Nepal. Redrawn by Jeni Dahal and Jaya Pun (2023).

Forest and tree/shrub species overview in Khanidanda village

Of particular interest for this study, however, are the community forests and forest products. For these, the local population in Khanidanda reported to use the so-called Thulo community forest (Thulo CF, *Thulo Baan*) as well as their private land. Thulo CF was established in the 1990s and can be divided into a northern and a southern part (see Figure 7). The northern part, consisting of natural mixed forest and described as the moister area, is also called Laligurans Forest, because of many Laligurans (*Rhododendron arboreum*) bushes. Further dominant species occurring here were reported to be Chilaune (*Schima wallichii*), Kalikath (*Myrsine semiserrata*), Saur (*Betula alnoides*), or Utis (*Alnus nepalensis*). The southern part of Thulo CF, described as a dry area, consists predominantly of Salla/pine (*Pinus sp.*) and some Saal (*Shorea robusta*). There is also a leasehold forest in the south.

Forest and tree/shrub species overview in Charghare village

In Charghare, two community forests could be identified to be mainly used, Salleni community forest (Salleni CF) and Katunjee community forest (Katunjee CF). While Salleni CF consists nearly exclusively of Salla trees (*Pinus sp.*), Katunjee CF is a mixed forest. Species in Katunjee CF are for example Katunjee/Katus (*Castanopsis indica*), Chilaune (*Schima wallichii*), Pharil/Jamun (*Syzygium cumini*, *Eugenia jambolana*), Salla (*Pinus sp.*), and Saal (*Shorea robusta*). Some villagers additionally use the so-called “Ramche Kaplit Private Forest” and their private land. Species in the private forest are for example fodder trees such as Ipil (*Leucaena leucocephala*), Padmero/Kutmero (*Litsea polyantha*) or Sati bayar (*Rhus parviflora*). Also some Salla (*Pinus sp.*), Saal (*Shorea robusta*), bamboo and fruit trees were reported. Figure 8 shows an overview of the typical landscape around Charghare, with pine forest on the left and mixed forest on the right of the picture.

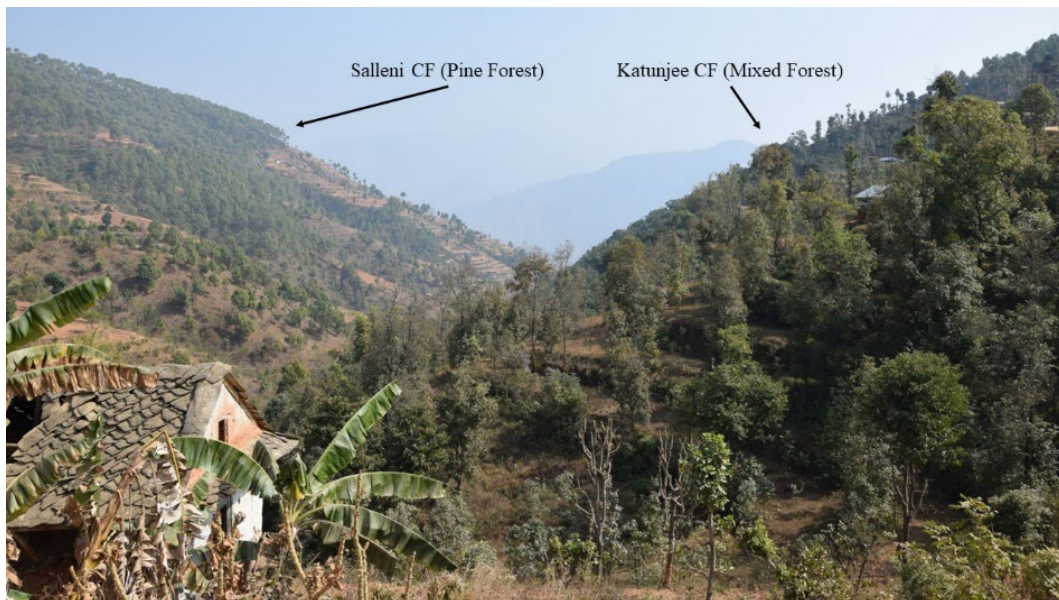


Figure 8: Photograph of the typical landscape around Charghare village, Ramechhap, Nepal (photo taken by the author, © Tina Jahn, 2023)

6.2 Daily tasks of women and forest use

As women are the primary forest users in Nepal and therefore play an important role in forest management (Bhandari *et al.*, 2018, p. 13), the aim was to first find out how local women in the chosen study sites spend their day-to-day activities and which forest products they typically use in the region. Besides household activities such as cooking, washing, cleaning or childcare, the participants of this study reported daily activities such as cultivating their land (especially in the rainy season) and taking care of their livestock (e.g. feeding, grazing them on private land or milking). Other key activities that take several hours a day, often starting from

6 am, are cutting fodder plants and grass for their animals, collecting firewood, clearing out dung and carrying manure to the fields.

Regarding forest usage, it can be noticed that all the participants use the surrounding forests or their own land for the collection of forest products. As mentioned in the previous chapter, both community forests and private forests (shared by smaller groups of people), play a role in this regard. The most frequently mentioned purpose for forest use was the collection of fodder (*dale ghas*) and ground grasses (*khar*), as well as firewood/fuelwood (drywood), mentioned by all participants. The collection of leaf litter or *syaula* (plants for bedding the animals) was frequently listed as well. In addition to the forests, private land is used to gather forest products or grass as fodder for livestock.



Figure 9: Photographs of respondent tying up and carrying grasses (photos taken by the author, © Tina Jahn, 2023)

Accompanying one of the interviewees on a walk to her private grassland exemplified the women's daily task of cutting grasses. It could be observed how grass is tied together into smaller bundles (by making strings of grasses), binding the bundles together with a rope and carrying them to the homestay (with the support of a "headband", see Figure 9). As the respondents' husband joined midway through the trip, it was additionally possible to observe the collection of forage from a fodder tree (Khaniya, *Ficus cunia*), which involves individuals climbing the trees to cut the fodder (see Figure 10).



Figure 10: Photograph of villager gathering fodder off a fodder tree (*Khaniya, Ficus cunia*), (photo taken by the author, © Tina Jahn, 2023)

From the daily tasks of women and forest use described here, gender roles and division of labour as previously described become clear in relation to areas of work, including the aspect of rural women depending on forest products such as fodder or firewood (Agarwal, 2009). One respondent for example commented: “When I was a child, I used to rear goats and chickens, take care of my siblings and do the household chores. This is how I grew up. [...] What could I do? I couldn’t read. [...] I only know how to cut grasses, cook food and bear children” (Respondent #13, 44 years old).

Timber for the use of constructing houses or animal sheds further plays a central role in the study sites in terms of forest products. However, as it was explained by one participant, an application for timber needs to be handed in and then bought from the CFUG if needed and is therefore not part of daily collection activities.

It is noteworthy that almost none of the respondents indicated harvesting products such as fruits or medicinal plants from the forests. In fact, several respondents reported that there were no fruits or medicinal plants in the nearby forests at all. Especially in Salleni CF in Charghare, this can be explained by the circumstance that almost exclusively *Salla* (pine tree, *Pinus sp.*) is growing there, although one of the respondents commented that the resin could be used for medicines for cramps or joints. A few mango and banana trees were mentioned to have been planted in the private forest in Charghare, however, these seem to have little success. In Khanidanda, one participant referred to Kafal (*Myrica Esculenta*) as a fruit tree, as well as to Pani Amala (Himalayan ground gooseberry)

as the only fruits. Another respondent mentioned Katus (also Katunjee, *Castanopsis indica*) in addition to that.

In Charghare, another forest product, although not part of the daily collection activities, but as an income source for the CFUG, is resin from the pine trees of the Salleni CF. This also seems to be a product that is sold outside the CFUG, compared to e.g. timber, which is only sold to the members within the CFUG.

Although participants rely on forest products year-round, it should be noted that community forests in particular are not open year-round due to protection reasons.

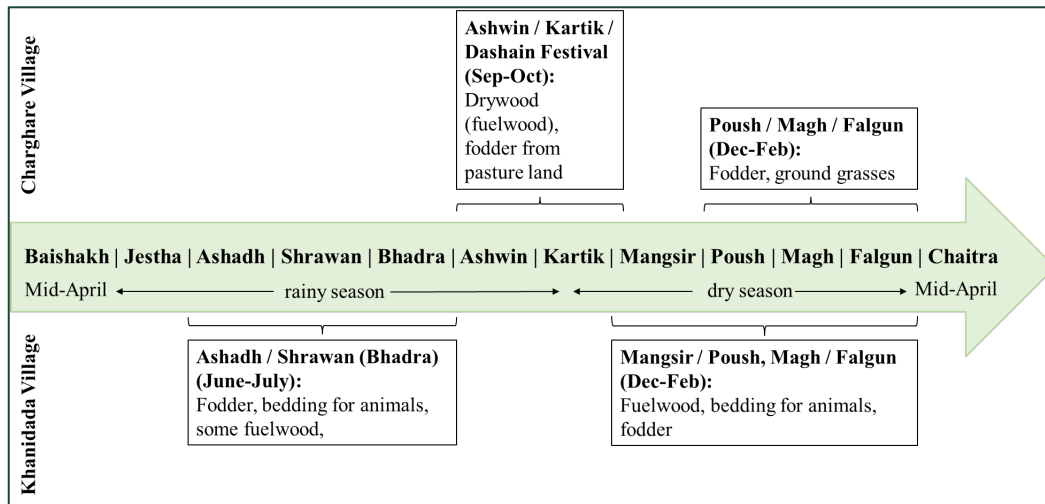


Figure 11: Opening times of the community forests in the study sites in Ramechhap, Nepal.

The main times when community forests are typically open in Charghare for collection are around the Nepali Dashain festival (September – October) for fuelwood and fodder, as well as in the dry season around December – February for fodder. In Khanidanda, mostly fodder and some bedding material for the animals can be collected from the community forest in June – July (monsoon season), when there’s more greenery. Fuelwood, as well as bedding material for animals and some fodder can be collected in the dry season (see also Figure 11). Thereby, the community forests are only opened for a few days up to a week, and then closed again. Ojha, Persha and Chhatre (2010) for example mention that, during dry season, forests are often the main source of fodder and grass, and farmers in Nepal depend on forests for green fodder for livestock during this time. It is thus plausible that community forests are opened during this time.

In addition to these opening hours, there are other rules set by the CFUGs’ executive committee, that define the use of the forest. These rules were very similar in both places and include, in addition to opening the forests only from time to time, for example, no cutting of green trees, collecting only drywood as firewood, and, especially in the case of Khanidanda, no grazing in the community forest. Straight poles are generally used as timber. Community meetings are held every 3-6 months. Violations of the rules, theft, damage to plants or non-attendance at the meetings

(at least one household member should attend) will be fined according to the gravity of the violation.

6.3 Inclusion of women: participation in decision-making

During the individual interviews, questions were asked about women's membership in CFUGs and whether they go to group meetings and raise voice. This is intended to provide an idea of how gender norms and traditional roles might play out in regard to participation in forest management and decision-making processes in the study sites of this thesis. This can provide important learnings regarding the inclusion of women in community forestry.

In general, there are different views from different respondents on participation in community (forest) meetings. During the interviews, it was often claimed that men and women attend equally, or when asked if it is more male or females, it is said that it is "all equal", without any differences for women and men. Some of the respondents also say that it is generally easy for women to participate in local decision-making. However, when examining some statements more closely, there are some that are indeed contradictory, raising the question of which aspect is more likely to be the case. One such example is the following sentence: "It [participation in decision-making] is easy. I don't go much to the meeting. My husband goes. Most of the time, I just do household work, cultivate, stay at home (Respondent #9, 54 years old). Here it becomes visible how it is claimed that participation is easy for women, but at the same time traditional gender roles are revealed, showing how the female participant does not actually participate in meetings, making her statement contradictory. To link this to Agarwal's (2001) theory introduced before, this comment shows underlying factors that prevent this respondent from actually attending meetings.

When the same person was asked who she thought speaks more in the community meetings, the answer was: "It is the men. Those who are clever [who understand more] speak more. Those who don't understand keep quiet". Here, the educational aspect as a factor is intertwined with gender. Social perceptions lead to a situation where the opinion of men or educated people in particular carries weight, while others do not express their opinion. If looking at levels of participation in a group, these examples show at most passive participation (Agarwal, 2001).

In some cases, however, it is reported quite clearly in a way that indicates participatory exclusion (Agarwal, 2001) of some people in society, despite institutions that are supposed to support the participation of women (also through quotas). One respondent in Charghare for example, having the role as secretary of the CFUG on paper, reported that another male person is actually doing the work

to be done in this role [e.g. book-keeping], since she is not educated: “It is like this. I am just in [this role] by name. As I am uneducated, I don’t know about bookkeeping. [...] When it comes to withdrawing the money, I’ll go to sign the account. So, there is another person [referring to a male] who does the book keeping” (Respondent #7, 48 years old). Unequal power relations both within communities and within households can be seen in the examples above, impacting women’s responsibilities and opportunities for participation (Elias, Joshi and Meinen-Dick, 2021). Although rules of the community’s decision-making body officially allow (or even require) women to play a role, societal perceptions of women’s abilities or even personal endowments (such as educational levels) can lead to their exclusion (Agarwal, 2001).

In another statement, an interviewee speaks very clearly about women not being listened to: “The man is always more dominant than the women. The women are not listened to. [...] They don’t listen to the females. If there is no male in the house, it is a kind of discrimination” (Respondent #15, 36 years old). Here, gendered norms of behaviour as well as household situations are reflected in power hierarchies (Agarwal, 2001).

However, gender is not the only factor that seems to influence whether some of the respondents feel heard in decision-making. Some respondents also refer to age as a reason, when asked if they feel like they can influence decisions: “No dear. Who would hear our voice? We are old and they won’t listen to us. [...] Sometimes I just want to go there [to the meeting] and want to understand what’s happening. But they [the young generation] say that we don’t need to understand everything” (Respondent #14, 60-70 years old).

Besides these aspects, education seems to be almost more important when it comes to participation in decision-making. One interviewee shared that she came to realise that illiterate people, whether male or female, face many problems. When asked who she thinks influences decisions in the village, she replied: “Those who are literate” (Respondent #13, 44 years old). In a similar statement, it was expressed: “they [literate people] are clever and obviously they dominate the unclever people, and also old people” (Respondent #23, 60 years old).

Signs of internalized disempowerment can be seen in several statements, for example, one of the above-mentioned interviewees says the following about who speaks most during community meetings: “Those who are more educated, who can speak. That’s just the way it is. We are illiterate and just say yes, that’s good. Because the educated people do good things. It wouldn’t be right to say it’s not good. So, we said it’s good” (Respondent #13, 44 years old). One of the respondents even repeated several times that she believes “people who are not educated are not good people” (Respondent #6, 54 years old). Such internalized views add to the factors that constrain participation in group meetings.

Building on the theoretical background of FPE and participatory exclusion, several gendered factors are already evident here that influence the participation of respondents in this study in relation to CFUGs as local resource management institutions. Reasons that become visible in these quotes, why some women in particular are excluded, are for example societal perceptions of women's capabilities, personal endowments (such as educational levels) or traditional gender roles that influence household dynamics (Agarwal, 2001). Gender is not the only factor here; education (although partly linked to gender) and age also emerge as underlying systemic factors that can create unequal power relations and a situation where the opinion of men or educated people in particular carries more weight. Such factors can prevent women from interactive, empowering participation (Agarwal, 2001), i.e. having a say and influence on group decision-making. Consideration of these aspects is relevant for subsequent aspects of restoration. With FPE providing a valuable lens for looking at the dynamics of restoration, power relations which may influence, for example, how restoration priorities are set or how rights to resources and benefits are perceived and distributed (Elias, Joshi and Meinzen-Dick, 2021) can also better be highlighted in this thesis.

6.4 Feelings, beliefs and attitudes towards the landscape and forest use

To examine what we can learn from community forestry in Nepal for more people-centred restoration approaches in terms of creating local social benefits, it needs to be better understood how community forestry is perceived and what is valued by local resource users. To address this dimension of benefits, this chapter shows what is valued by and useful for the participants of this study. Looking also at aspects beyond economic or material use value, findings on feelings, beliefs, and attitudes of rural women towards the landscape and forest use when it comes to responding to their needs, as well as towards community forestry are included in this chapter.

6.4.1 What is valued and useful about forests and landscape?

In order to answer the question of what benefits different women perceive in relation to the landscape and planted forest and what this implies in terms of reforestation planning, the participants were asked what they value most in their landscape and subsequently what else is particularly useful to them. The answers from the open-ended questions are summarised and presented in Figure 12 and Figure 13. It is apparent that fuelwood and fodder were mentioned most often, and that agricultural land plays a major role for the respondents (see Figure 12 and Figure 13).

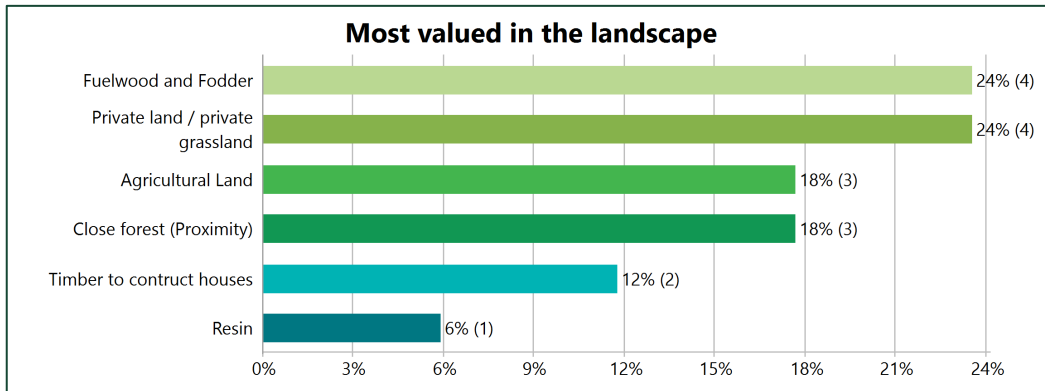


Figure 12: Aspects of the landscape most valued by respondents.

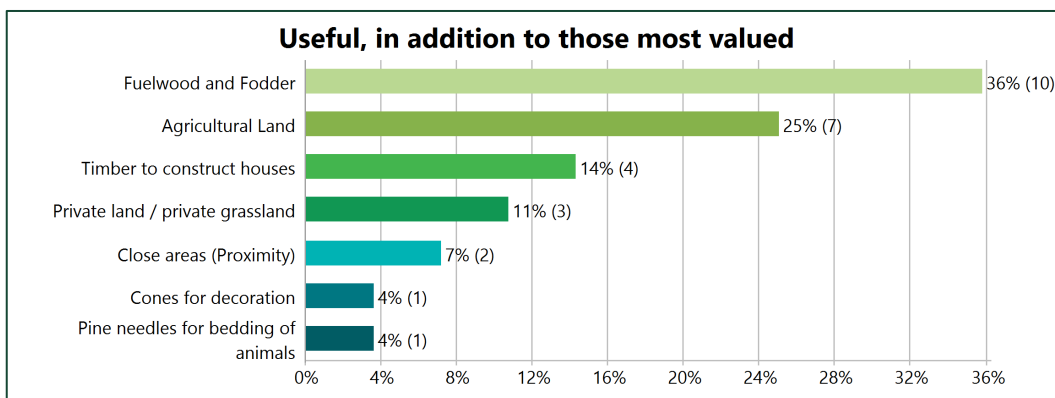


Figure 13: Aspects of the landscape perceived as useful by respondents, in addition to the valued aspects.

Considering the livelihoods and daily activities of the respondents, these answers are plausible. In one opinion, it is illustrated how fodder might even be more valued than firewood for some people: “What I need most is fodder, not fuelwood, because we should not keep the animals unfed” (Respondent #5, 66 years old). As described earlier, livestock is an important source of livelihood for the rural population in the study area. Related activities such as collecting fodder, feeding and grazing the animals, or milking are time-intensive activities that fall under the daily activities of the women. It therefore makes sense that fodder, but also private land/grassland are among the most valued and useful aspects for some women in this study.

Looking more closely at the answers regarding private land/grassland as being most valued by some respondents, one of the participants says, for example, “If it is my own grassland, I can go and cut [the grasses] whenever I want” (Respondent #10, 32 years old). A very similar statement in this context was: “The community forest is only open at its particular time. My own land is nearby here, I can go there at any time” (Respondent #17, 34 years old). This addresses the circumstance that community forests are not open year-round and that during the closure period, women must use alternative sites (namely, private land) to collect forest products for their livelihoods.

There are indications that proximity of, for example, grassland or forest plays an important role regarding using them, for example through sentences such as “This is the only area we use which is close to us” (Respondent #15, 36 years old). When asked which forest or grassland is the most valuable, two of the answers were “the forest / that which is near” (Respondent #8, 34 years old, and Respondent #16, 27 years old).

Agricultural land (*bari*) certainly remains important for many of the respondents, as they live from subsistence farming. This can be seen, for example, from this comment: “Our own agricultural land, I value the most. It provides enough food as we work hard. We don’t need to buy lentils. Maize also grows well when in season” (Respondent #19, 23 years old). A similar answer was given by Respondent #10 (32 years old): “The most useful is the agricultural land (*bari*). This is for feeding ourselves, for cultivating and producing our own food.”

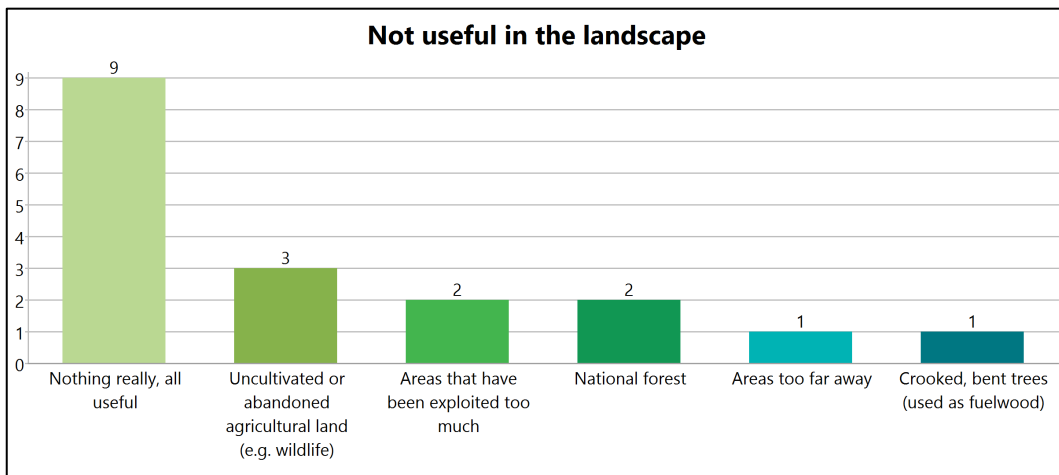


Figure 14: Aspects in the landscape perceived by participants as not useful.

Regarding the question of what aspects, if any, the respondents might perceive as not useful in the landscape, most who gave an answer said that everything is useful in some way (see Figure 14). Nevertheless, there were also a few participants who felt that uncultivated or abandoned agricultural land is not useful because there is no production there, although they did say they were using it as grassland. While grass is ultimately used for livestock, and therefore could be considered useful, it is interesting to see how the land here is perceived as not useful, since it could have been used as agricultural land (if there were no wildlife problems).

A similar observation was made in a statement by a (female) participant, indicating that when purchasing firewood from the CFUG, only “the one that is about to dry up or is a crooked tree which is not useful” is given out and that “they won’t give out a tree which is useful” (Respondent #17, 34 years old). Here, she refers to straight, healthy trees that can be used as timber. The same aspect was noted in one of the KIIs with a male individual. Here, the respondent referred to the situation that there is “not much useful wood” in a leasehold forest near the village.

According to him, “it can be used sometimes as a fuelwood, but it is not useful in the construction of the houses”. In a conversation with a female respondent and her husband, a further gendered aspect could be observed regarding what is valued about the forest. While the female respondent commented “Since we live in the village, we value fuelwood and fodder the most”, her husband said, “They [private forest group] give us timber for house construction. It is quite cheap for members like us [...]” (Conversation with Respondent #6, 54 years old and her husband). It is noteworthy how the female respondent talks mostly about firewood and fodder; the husband only mentions the monetary aspect around timber.

A more detailed gendered analysis of how the perceived usefulness and non-usefulness of products and areas in the landscape differs between groups, and whether there is a difference between males and females in this respect, would be interesting for further research.

6.4.2 How local women relate to tree species: species and categories of use

The respondents were further asked which plant species they use, for what purpose, and in which different parts of the landscape these species can be found. From these findings, an overview of species and dominant use categories was generated (see Table 6 and Table 7). Although a comparison of the two study villages does not appear to be reasonable due to the similar general geographical conditions, the overview tables of the plant species were nevertheless generated separately in order to be able to possibly draw conclusions about the direct surroundings in each village. The aim is to investigate women’s everyday needs in more detail and to try to understand which parts of the landscape are able to meet them. Plant species for which the benefits were not clear from the respondents’ answers and for which it is not known where in the landscape they can be found have not been included in this table for reasons of clarity. Both tables below therefore do not claim to be fully comprehensive, nor do they guarantee that some species may not be found in more than the areas of the landscape listed. The information presented here is merely based on the information provided by the respondents in the current study.

In Charghare village (see Table 6), 24 species were given in connection with a specific use, the most frequently mentioned being Salla (*Pinus sp.*), ipil-ipil (*Leucaena leucocephala*), Sati bayar (*Rhus parviflora*) and Saal (*Shorea robusta*). In Khanidanda village (see Table 7), 28 species were mentioned in connection with a specific use. The most frequently named species here were Chilaune (*Schima wallichii*), Salla (*Pinus sp.*), Khaniyo (*Ficus cunia*), Laligurans (*Rhododendron arboreum*), Padmero/Kutmiro (*Litsea polyantha*) and Saur (*Betula alnoides*). Multiple answers are considered in the tables here. It is worth mentioning that all species except for Salla (pine tree), are broadleaf tree species.

Table 6: Used tree, shrub, and grass species in Charghare*, in alphabetical order, including dominant uses and number of respondents who mentioned them

Local Name*	Scientific Name	Type of species	Dominant uses (including number of times mentioned)	Where found
Amriso / Amrisho / Amliso	<i>Thysanolaena maxima</i>	grass species	fodder (1)	own/agricultural land, private forest
Apple	<i>Malus sp.</i>	broadleaf tree, fruit tree	eating (1)	own/agricultural land
Avocado (in testing phase)	<i>Persea Americana</i>	broadleaf tree, fruit tree	income source (1)	own/agricultural land
Bamboo	<i>Bambusa sp.</i>	bamboo, treelike grass	income source (2)	community forest, private forest
Banana	<i>Musa sp.</i>	broadleaf tree, fruit tree	eating (2)	own/agricultural land
Chilaune	<i>Schima wallichii</i>	broadleaf tree	timber (2)	community forest, own/agricultural land
Dhamre	<i>unknown</i>	tree or shrub	fodder (1)	National forest
Dhayaro / Dhanyaro	<i>Woodfordia fruticosa</i>	shrub / small tree	fodder (1)	National forest
Dhore	<i>unknown</i>	tree or shrub	fodder (2)	National forest
Ipil / ipil-ipil	<i>Leucaena leucocephala</i>	broadleaf tree	fodder (5)	own/agricultural land, private forest
Jalma	<i>unknown</i>	tree or shrub	fodder (1)	own/agricultural land, private forest
Jamun / Pharil	<i>Eugenia jambolana / Syzygium cumini</i>	broadleaf tree, fruit tree	timber (1)	community forest, private forest
Kaiyo / Kangiyo	<i>Wendlandia exserta</i>	shrub / small tree	firewood (1)	not specified
Katunjee / Katus / Dhale Katus	<i>Castanopsis indica</i>	broadleaf tree	eating (1)	community forest
Khanyo / Khaniyo / Khaniya	<i>Ficus cunia</i>	broadleaf tree	fodder (1), timber (1)	private forest
Kimbu (Mulberry)	<i>Morus alba L.</i>	broadleaf tree	not specified	own/agricultural land
Mango	<i>Mangifera indica</i>	broadleaf tree, fruit tree	eating (2)	own/agricultural land, private forest
Napier	<i>Pennisetum purpureum</i>	grass species	fodder (1)	own/agricultural land
Padmero / Kutmero / Kutmiro	<i>Litsea polyantha</i>	broadleaf tree	fodder (3)	own/agricultural land, private forest
Papaya	<i>Carica papaya</i>	broadleaf tree, fruit tree	eating (1)	own/agricultural land
Saal / Sal	<i>Shorea robusta</i>	broadleaf tree	timber (3), firewood (1)	community forest, private forest
Salimar / Salimo khar	<i>Themeda sp.</i>	grass species	fodder (2)	private forest, National forest

Salla / Pine	<i>Pinus sp.</i>	pine tree	timber (6), resin production as an income source for the CFUG (4), firewood (3), needles as bedding for animals (1)	community forest, own/agricultural land, private forest
Sati bayar / Satiber	<i>Rhus parviflora</i>	shrub / small tree	fodder (4)	private forest, National forest

*most frequently mentioned species are marked in bold

Table 7: Used tree, shrub, and grass species in Khanidanda*, in alphabetical order, including dominant uses and number of respondents who mentioned them

Local Name*	Scientific Name	Type of species	Dominant uses (including number of times mentioned)	Where found
Amriso / Amrisho / Amliso	<i>Thysanolaena maxima</i>	grass species	broom grass (1), income source (1), fodder (1)	own/agricultural land
Bhimsenpati / Bhispati	<i>Buddleja asiatica</i>	shrub / small tree	fodder purposes (1)	own/agricultural land
Chilaune	<i>Schima wallichii</i>	broadleaf tree	timber (9), fodder (1), syaula/bedding for animals (1)	community forest
Chiple / Chiple ghans	<i>Villebrunnea frutescens</i>	grass species	fodder (1)	own/agricultural land
Chiuri / Chyuri	<i>Aesandra butyraceae</i>	broadleaf tree	fodder (1)	own/agricultural land
Chuletro	<i>Brassaiopsis hainla</i>	shrub / small tree	fodder (1)	own/agricultural land
Dar/Daar	<i>Boehmeria rugulosa</i>	broadleaf tree	fodder (2), Theki/vessel (2), timber (1)	own/agricultural land, community forest
DhanaKhat/ Dhankath/ Ghoti	<i>Ziziphus xylopyrus</i>	broadleaf tree	fodder (2)	own/agricultural land, community forest
Dhayaro / Dhanyaro	<i>Woodfordia fruticosa</i>	shrub / small tree	fodder (1)	own/agricultural land, community forest
Jamun / Pharil	<i>Eugenia jambolana / Syzygium cumini</i>	broadleaf tree, fruit tree	timber (1)	community forest
Kafal	<i>Myrica Esculenta</i>	broadleaf tree, fruit tree	not specified	community forest
Kaiyo / Kangiyo	<i>Wendlandia exserta</i>	shrub / small tree	fodder (1), timber (1)	own/agricultural land, community forest
Kalikath / Kali kath	<i>Myrsine semiserrata</i>	shrub / small tree	timber (1), firewood (1)	community forest
Khangir / Kangir	<i>unknown</i>	tree or shrub	fodder (1)	community forest
Khanyo / Khaniyo / Khaniya	<i>Ficus cunia</i>	broadleaf tree	fodder (5), firewood (1)	own/agricultural land, community forest

Laligurans / Laligurans / Gurans	<i>Rhododendron arboreum</i>	shrub / small tree	firewood (6)	community forest
Makbuwa / Mukbuwa	<i>unknown</i>	tree or shrub	firewood (1), syaula/bedding for animals (1)	community forest
Nidalo / Nigalo	<i>Drepanostachyu m falcatum</i>	bamboo, treelike grass	timber (1)	community forest
Padmero / Kutmero / Kutmiro	<i>Litsea polyantha</i>	broadleaf tree	fodder (6)	own/agricultural land, community forest
Paiyo / Painyu / Paiuya	<i>Prunus cerasoides</i>	broadleaf tree	timber (1)	own/agricultural land
Phusre ghans	<i>Indigofera pulchella</i>	shrub / small tree	fodder (1)	own/agricultural land, community forest
Rudilo	<i>pogostemon benghalensis</i>	herb	fodder (1)	own/agricultural land, community forest
Saal / Sal	<i>Shorea robusta</i>	broadleaf tree	timber (1), firewood (1)	community forest
Salimar / Salimo khar	<i>Themeda sp.</i>	grass species	fodder (2)	own/agricultural land, community forest
Salla / Pine	<i>Pinus sp.</i>	pine tree	timber (8), firewood (2)	own/agricultural land, community forest
Sati bayar / Satiber	<i>Rhus parviflora</i>	shrub / small tree	fodder (1), firewood (1)	own/agricultural land, community forest
Saur / Shaur / Sauer	<i>Betula alnoides</i>	broadleaf tree	timber (5), fodder (1)	own/agricultural land, community forest
Utis / Uttis	<i>Alnus nepalensis</i>	broadleaf tree	timber (1)	

**most frequently mentioned species are marked in bold*

A closer look at the tables shows that the dominant uses of tree, shrub and grass species are almost exclusively mentioned in terms of value for domestic use. The domestic uses of the species include use for fodder purposes, timber for the construction of houses or animal shelters, firewood, material for animal bedding, as well as eating purposes (in the case of fruit trees). In terms of monetary value or selling purposes, only in Charghare village (see Table 6) one respondent shared that she is trying avocado cultivation because she had heard that it would bring income. Bamboo was mentioned twice (one of which was mentioned by the husband of a respondent who took part in the interview), to bring profit to the user group of the private forest in the village. In four cases, respondents referred to the Salla/pine trees (*pinus sp.*) for resin production as an income source for the CFUG. In Khanidanda, only one respondent referred to Amriso grass (*Thysanolaena maxima*, broom grass) in terms of monetary value. She told that if they manage to grow it,

they can use it to sweep the floors (use it as a broom grass) and that it can also be used for commercial purposes (Respondent #12, 39 years old).

It is further worth examining which parts of the landscape the participants refer to when talking about the different species. Hereby, the tables reveal that alongside community forests, own/agricultural land and private forests are frequently mentioned for the species used. It is therefore worth asking to what extent private land, in addition to the existence of community forests, is equally or even more important for meeting participants' daily needs. This is particularly interesting with the background of the previously seen aspects, in which it came through that some respondents value that they can use their own land whenever they want to (in comparison to community forests which are not open year-round). So, to what extent are community forests and local institutions responsive to people's needs and what can be learned in terms of benefits?

Further below, it will therefore be investigated in more detail what a "good forest" means to participants and how they perceive community forestry as a way of governing forests.

6.4.3 Favourite places to visit in the landscape/surroundings

While in the previous questions there is a tendency visible that forests and the landscape are primarily seen as a resource, the question whether the respondents have certain places in the landscape that they particularly like to visit adds the aspect of feelings that might be associated with certain places. This could add another layer in terms of values and local perceptions of the landscape to the findings identified here.

In line with the previous aspects, the point of easy availability of fuelwood and fodder again plays an important role for many of the respondents when it comes to favourite places in the landscape (see Figure 15). This can mean availability in the sense of quantity that can be collected in a short time, but also, for example, that there are no bushes that make collecting or cutting fodder difficult. One of the respondents said: "I feel happy when I get fuelwood and grasses easily. When I don't get them, I have to go further and it bothers me" (Respondent #8, 34 years old).

However, what was mentioned by even more participants is the aspect of plain land and easy walking, which is also related to the proximity of a place. Slopes and steep hills seem to make work difficult for many of the women. One of the participants reported that it is not as deep to fall down when there are not so many cliffs in a spot. This fear of falling on steep slopes was reported by several of the women and that it was difficult to cut fodder in such places. Leaf litter or fallen pine needles can also make the ground more slippery and increase the risk of falling. Others told that they prefer to go to the nearby forest because they are too lazy to walk far, especially since the way back with heavy loads takes much longer to walk.

Such statements indicate that emotions and personal everyday experiences of local resource users can influence how they use and perceive forests.

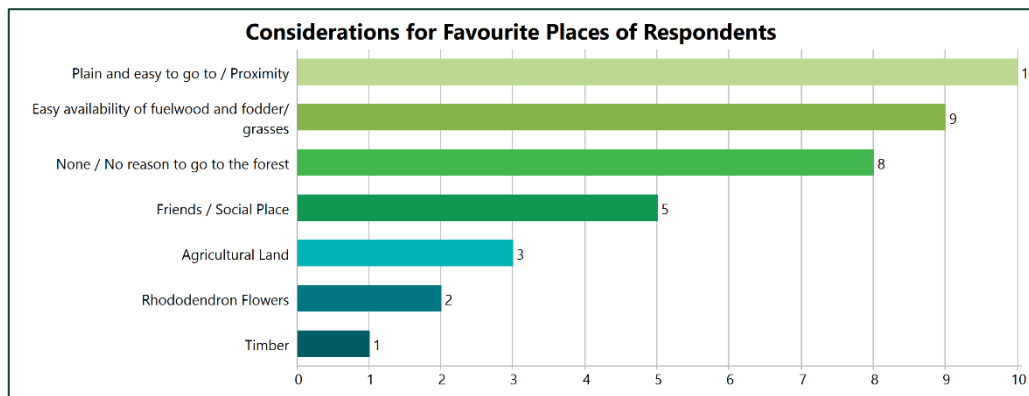


Figure 15: Considerations for favourite places of respondents.

Another interesting factor in this question was the social aspect, which seems to play a role for at least some of the participants when considering their favourite places. One of the respondents shared that she likes to be in one part of the community forest, since her friends go there as well, and they all gather there together (Respondent #20, 35 years old). Being with friends also seems to make work easier and the distance to be walked to collect fodder shorter, as can be seen from one answer: “When we [the respondent and her friends] talk, we feel like the road is shorter and as if we are not really walking at all” (Respondent #21, 22 years old). Rhododendron flowers were reported by some respondents to make them feel amazing in the forest. Here, the forest as a social place comes out in addition to the perspective of the forest as a resource. Like Singh (2013) describes it, a community forest might therefore provide an opportunity to become “a site for forming or strengthening social relations” (p.194).

However, some of the respondents also avoided giving a specific answer to the question about a favourite place in the landscape, as they said that they hardly go into the forest anymore, or stay close to their home, because they were “too old” to cut fodder from the trees, for example. An elderly woman, who estimated her age to be around 60-70, said that she could not even walk properly anymore and therefore could not bring any products from the forest, which is why she had not been there for at least 2 years (Respondent #14, 60-70 years old). This aspect can be similarly seen in a study by (KC *et al.*, 2021), where it was reported that some elderly people said “that they were physically not strong enough or unable to walk far to collect forest products” (p. 13).

When the question of a favourite place was related to the forest, some of the participants also saw no particular reason to go to the forest, as it is often closed for collection purposes during the year. Here, rather the risk of a trip to the forest being misunderstood as an unauthorised collection activity, resulting in getting fined by

the CFUG, was perceived: “Unless the forest is not closed, why would I like to go to the forest? If we only go to visit, they will suspect that we want to take fuelwood. Of course, we have to go to our own land” (Respondent #13, 44 years old). Another factor given by at least 2 of the respondents in Charghare as a reason for not having a specific favourite place in relation to the forest was the fear of (what the locals called) a “tiger”. According to follow-up clarifications with several people, this seems to be a leopard.

6.4.4 What is a “good” forest?

During the interviews, it was further asked what a “good forest” means for participants. The question was intentionally phrased very openly, without any indication of what “good” might mean in this context, in order to give the respondents as much freedom as possible in their answers. The underlying idea is to explore whether, in addition to the aspects valued or considered useful by the participants in this study, other aspects might be identified as positive by the respondents, and which could potentially be included in the management of community forests.

Again, aspects relating to the provision of fodder and fuelwood were mentioned most frequently (see Figure 16). One of the participants for example said: “Good Forest is wherever you get good fodder and fuel wood” (Respondent #21, 22 years old). Another answer was for example: “If there are different grasses, then it is good to cut them for the goats” (Respondent #8, 34 years old).

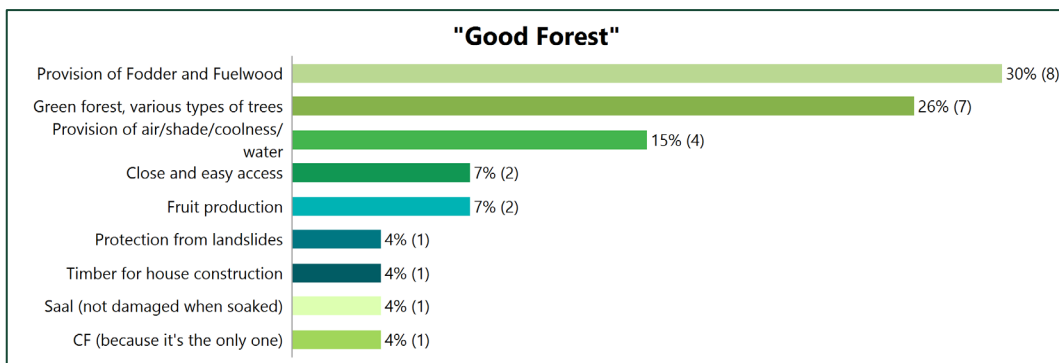


Figure 16: Meanings of a “good forest” according to respondents.

In addition, however, the point of green forest as a good forest was made, whereby some of these answers explicitly referred to the presence of different tree species. Some responses included that this also means properly grown trees and, most importantly, not barren land. One of the respondents pointed out that “good forest is **always** green, has **always** green grass, but we don’t have such a forest” (Respondent #9, 54 years old). This statement mainly refers to an evergreen forest compared to a forest that is seasonally green due to rainy and dry periods.

When talking about “good forest”, a few participants also referred to aspects such as providing shade, air, coolness or water, for example: “For me, the forest is a beautiful place that everyone needs, it provides shade, protects from landslides, and also there is a source of water when there is a forest, that’s how we were taught” (Respondent #12, 39 years old). Especially regarding the water aspect, the husband of one of the interviewees also added the following statement during a conversation: “People say that if there is forest, there will be rainfall, but it has been 6 months now since there was rainfall” (husband of Respondent #5). Especially because of comments such as “that’s how we were taught”, one should bear in mind that people’s statements can be influenced by what they have learned from others.

It is interesting that timber was named only once in this question, and only in connection with the mentioning of the time of Rhododendron blooming: “For me, Chilaune timber [*Schima wallichii*] and Laligurans trees [*Rhododendron arboretum*] are what I like the most. It is quite suitable for houses like for windows or doors. Laligurans grows in the month of *Falgun* [mid-February to mid-March] and looks so beautiful when it blooms” (Respondent#12, 39 years old).

6.4.5 Perceptions of community forestry and restrictions

It is further examined how respondents feel about community forestry and existing rules and restrictions, especially since community forests in the study sites are not open for collection purposes year-round.

It can be said that community forestry as a way of governing the forests was considered almost exclusively positive by the respondents. One of the most frequently given reasons why respondents view community forestry in a positive way can be summarised under the aspect of protection or conservation of the forests. That means, that respondents view this type of governance as enabling increased plant growth, as the plants are not constantly being cut down or grazed on by animals (see Figure 17). Participants said in this regard, for example, “if people are not allowed [to go into the forest], then there is plant growth. [...] Before, the forest was open, there was no growth of grasses because everything was repeatedly cut off, so how can things grow?” (Relative of Respondent #21, 50/60 years old). Similarly, it was shared “It feels good. It is our community forest. Otherwise, people would destroy the plants and become careless. They would think that they can do anything in the forest” (Respondent #19, 23 years old). Similarly to what Singh (2013) found, such statements show that people do care about “their” forest and feel the need to protect it from destruction as a community.

For many of the interviewees, this protection also includes the aspect that, due to the way of governing the forest, people seem to have more availability of forest products overall: “If we go [to the forest] every day, there is not enough. I like the rules. I don’t know how others feel. If we cut [from the plants or trees] every day, it won’t last” (Respondent #17, 34 years old). So, the aspect of sustained availability

of forest products is playing a role here. Forestry practices such as pruning also seem to be perceived as positive by some participants, because they perceive the plants to be well cared for, so that they grow tall. One participant summarized this point by saying “if it’s a community forest, it’s protected [...]. Because of the rules, the forest is better and the forest is protected” (Respondent #7, 48 years old).

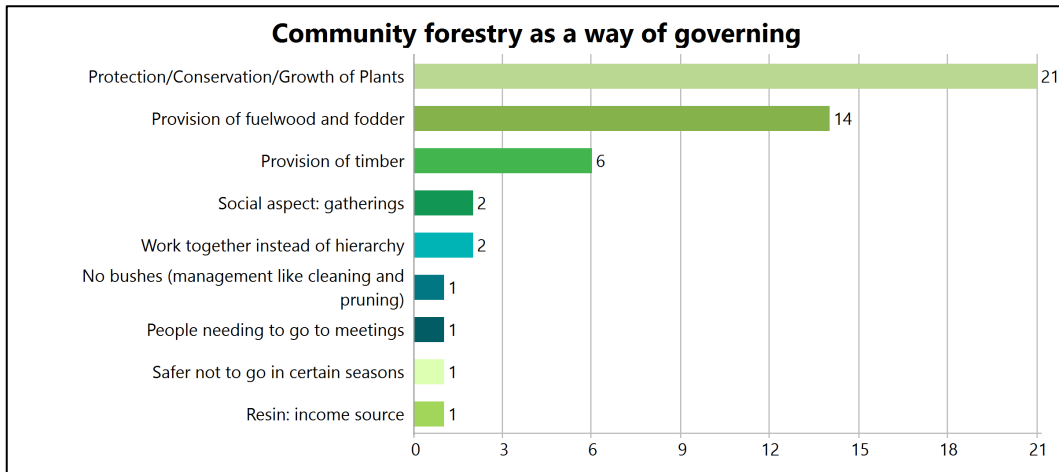


Figure 17: Positive aspects of community forestry as a way of governing forests, according to respondents’ views.

Further, there are some individual comments that community forestry is good, for example, because it means that the chief, executive committee, and others can work together instead of taking orders from up the hierarchy, or that it is compulsory for people to go to the meetings. In addition, however, this question about opinions on community forestry highlights that community forestry means a positive impact on, again, the supply of fodder, firewood and timber for the respondents. Here, the comparison with the previously existing national forest is also made, and that the situation has improved since the establishment of the community forests: one participant said that “the community forest is much better than before [it’s establishment] and that it is safe [...] in terms of wood, grasses, fodder” (Respondent #13, 44 years old).

Generally, many respondents report an increase in forest since the establishment of the community forests, sharing that since then, there are large trees and pastureland available. One respondent even described that “since the establishment of the community forest, there is forest, previously it was bare” (Respondent #17, 34 years old). Respondents generally credit the closure of the forest and not allowing trees to be cut or livestock to be grazed for allowing more trees to grow.

Overall, it can be said that respondents seem to support the idea of community forestry as a way of governing the forests for the sake of protection/conservation and for sustaining forest resources over the long term. They describe restrictions to be good. Locals seem to feel that if the forest is opened year-round, the degradation of the forest as a resource would occur, compared to when the forest is only

occasionally open for collection purposes. This narrative of the risk of degradation and overuse due to possible careless cutting of trees if the community forests were open at all times can be seen in a similar way in a study by Robbins (2000) conducted in India, where this is shown as follows: “If the forest is fully opened year-round, many locals claim that degradation of the resource is inevitable” (p.131). It should be noted, however, that longer conversations might have provided an additional opportunity to explore this narrative of communities being responsible for the degradation of forests, and to receive a wider range of opinions on this issue.

Surprisingly, when asking directly about opinions on community forestry and existing restrictions, negative aspects were mentioned by only 4 respondents. Again, it should be kept in mind that Nepal is well-known as a generally successful case in community forestry, which could lead to receiving very positive statements at first. More or longer conversations with the interviewees could also here have contributed to further differentiating this very positive picture. Different perspectives and more negative points might have been revealed more clearly through more extensive probes for such negative points. Also, more conversations with alone or elder women as particularly marginalised community members could possibly have brought out more critical points towards community forestry. As mentioned before, the presence of a male person in some parts of conversations might also have had an influence on how open some women answered, or how many critical aspects came out.

Negative points that were expressed mostly referred to the unequal treatment, between what respondents referred to as the “weaker” in society, and those who are “smart enough” to avoid paying fines, for example, in the case of violations of the rules. One participant explained how “some will get punished, someone who is smart enough won’t. They make life difficult for people like us who are poor and weak” (Respondent #14, 60-70 years old). Another point perceived as unfair by one respondent is that families with several family members can all go to the forest for collection, and that she wonders what people with fewer family members or who are alone are supposed to do. In addition, one participant reported that it would be better for her if the forest was open every day, as she also needs firewood every day. The last point in particular does seem to be quite relevant, as also many of the species in the study sites used by the respondents are not only found in the community forests, but also on private land or in private forests, as shown further up. Similarly, when looking back at the question considered at the beginning about what interviewees value most about their landscape, there is a tendency that for some of the participants private land/grassland seems to be among the most valuable aspects. Further, when talking about how the landscape around participants changed in recent years, it becomes clear that private land seems to be gaining importance indeed. This will hence be explored in more detail in the next section.

6.4.6 Perceived landscape and livelihood changes

In addition to the establishment of community forests as a major change in the late 1980s to early 2000s and the increase in forests with generally better availability of forest products, respondents have also indicated that private land is becoming more important. Already in the previous chapter, it became clear that some participants see no particular reason to go to the forest, as they do not want to take the risk of such a trip being misunderstood as an unauthorized collection activity. Therefore, it is interesting to ask what else has changed for respondents and in the landscape in this regard, as community forests are only open 2-3 times a year for a few days. There are indications that the general availability of forest products seems to have increased since the establishment of the community forests, but that access most of the times during the year is not given for the sake of protection.

Although many respondents appear to have the opportunity to use their own land and claim to collect fuelwood or fodder easily from their own agricultural land and grassland, it is particularly important to be aware that not everyone has sufficient land to support their livelihoods, for example, in terms of firewood and fodder. One respondent shared for example, that she only has 1-2 trees in her terrace, so she mostly relies on the community forest. She shared that when the forest is closed, she has to get fuelwood and grasses from her own land though, since she gets fines otherwise. Another participant, who said that she rarely goes to the forest because she finds it difficult to walk there said that she has her own grassland (*kharbari*) to use but emphasized that “there is little” (Respondent #23, 60 years old). An elderly woman, who partially participated in this interview shared, “there is no difficulty for those who have grassland, but for those who don’t have grassland, of course it is difficult”. According to one statement, it is also mainly those who do not have enough fodder in their private land who go to the forest: “The people who have difficulties with fodder, they go. Those who have enough will not go. That’s the way it is now. It’s a lot different than it used to be” (Respondent #16, 27 years old).

At the same time, however, it appears that using more private land is also resulting in locals planting trees there. When talking about planting trees on her own land, one respondent shared that she plants those that are useful to her. Here, this participant is talking specifically about the broadleaf trees Chilaune (*Schima wallichii*), Padmero/Kutmero (*Litsea polyantha*) and Saur (*Betula alnoides*). Another statement given in this context was “I planted Ipil [*Leucaena leucocephala*] and it has become easy to cut those. It is close and I’m able to see the greenery” (Respondent #8, 34 years old).

It has to be noted that, in relation to increased forest, wildlife problems are also related to changes in the landscape. As previously explained, forests can create more shelter for wildlife, which is then closer to cultivated land. Wildlife destroys crops, which results in the inability of many villagers to produce food for subsistence. Agricultural land then often has to be abandoned in terms of use for

cultivation. Also in this study, the availability of forest seems to have an impact on the wildlife present, as one respondent reported, “There used to be no forest, now there’s forest, so they [the animals] come here” (Respondent #6, 54 years old). That means, while the presence or increase of forests may have a positive effect on the availability of forest products, it can also lead to new challenges, such as wildlife endangering agricultural production.

On the one hand, abandoned land may now be used as grassland, or even gradually converts into forest, resulting in an increase of tree cover (Chhetri *et al.*, 2021). However, not being able to use land for agriculture because of wildlife is, together with water shortages, problematic for the livelihoods of participants. Another point that exacerbates the problems with wildlife and thus land abandonment for some participants (and vice versa) is the aspect of out-migration of other villagers. The desire for education, as well as difficulties in farming, seem, according to interviewees, to be driving villagers to seek other means of livelihood, resulting in moving to places such as Kathmandu or abroad. As a result, less agricultural land is cultivated, and these parts are converting into grasslands or forests. However, when agricultural land is abandoned in one part of the region, it also causes wildlife to move closer to the remaining land, which in turn exacerbates the problems there, according to the interviewees: “In the past, they [the monkeys] didn’t come that close. Now people from down the hill have left farming, so now they [the monkeys] are coming up” (Respondent #4, 55 years old).

6.4.7 Thoughts and perceived benefits of tree planting

Based on these points, it will now be reviewed how participants think about tree planting in general.

In addition to the reappearing aspects that tree planting is important above all for the availability of forest products, a generational aspect became visible here: “Of course, it is beneficial, we do need the forest, even our children and grandchildren also need it until they die” (Respondent #12, 39 years old). Similar to what Singh (2013) noted, this aspect shows how the perception of local resource users about changes or activities in the landscape may also be linked to concerns about the future needs of their children or grandchildren.

In one comment it was once again seen that having only the community forest does not seem to be enough: “If there are no plants/trees, how can we rear the animals, from where do we get the fodder for the goats and animals. Only the community forest is not enough, so there are many benefits when plants and trees are planted” (Respondent#16, 27 years old). It was interesting to see that several respondents in Khanidanda also said that it is not necessary to plant trees anymore, because there is natural regrowth (see Figure 18).

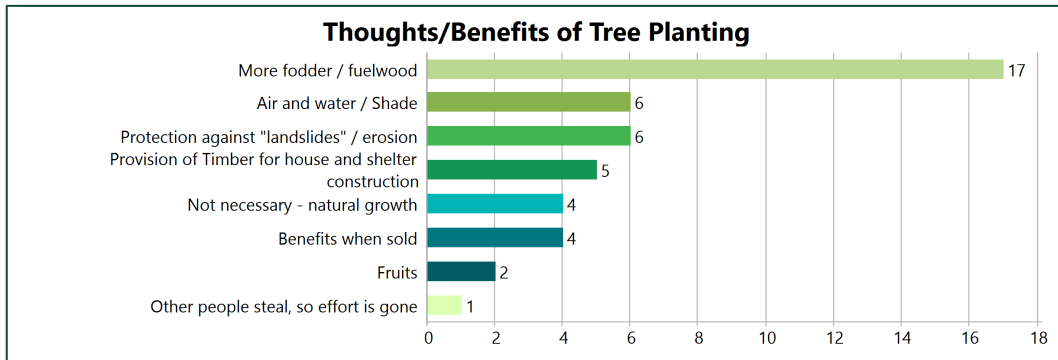


Figure 18: Benefits of tree planting, according to respondents

Furthermore, some respondents mentioned advantages of tree plantations such as the presence of air and water, as well as coolness/shade. As said before however, especially the point “when there is greenery, there will be rainfall” (e.g. Respondent #8, 34 years old) should be seen critically. Since there are drought problems especially in the field study area, with, for example, no rain this season from August 2022 to February 2023, it is questionable whether this is really an observation of the respondents or something that is viewed as a tree planting benefit in a very general way. Since the area seems to be prone to landslides, especially during the monsoon season, but also to some dry landslides, tree planting is seen by some participants as additionally positive to help prevent them. For example, one participant stated that she finds tree planting helps because of cracks in the ground, and trees can help prevent minor landslides because the roots of the trees can grab the ground (Respondent #22, 47 years old).

6.5 Tree planting and forest species provided by the forest department

Against the background of which forest species are used by the respondents in this study and for what purpose, it is further looked at which species were provided by the forest department for plantations in the community forests. Native tree species are present in both villages, with tree plantations that primarily took place during the establishment of the community forests. Since then, the forests have been regenerating naturally, according to respondents. Tree planting in Charghare was reported to have taken place both in Salleni CF (pine forest) and in Katunjee CF (mixed forest) around the same time (20-25 years ago, based on estimates). Also in Khanidanda, plantation was done about 20-30 years ago.

Regarding these plantations, when asked who decides which species to plant, it was stated that this is the decision of the executive committee and that rangers from the forest department provide plants (grown in a tree nursery) and tell the communities what to do.

Asking about what species are usually planted, in the KII in Charghare it was shared that these are species that used to grow in the area and that they are useful to build houses. One woman further shared how she participated in tree planting probably 20-25 years ago and that the forest department provided plants and decided what should be planted where. Another participant confirmed this statement. She mentioned: “The dean from the forest department tells the chief and the executive members [where and what to plant] and then we will have a meeting here and plant like this” (Respondent #1, 40 years old). In a meeting with the CFUG, it was also shared in which season trees should be planted and what benefits they would bring.

In Salleni CF, the tree species provided were pine (Salla) trees, according to Respondent #5 (66 years old). An interesting point hereby is that in the KII in Charghare, the following was communicated: “the plantation of Salla nearby houses has a negative impact as it makes the area drier”. Comparing it to the species that were most frequently mentioned by women for a specific use, however, Salla (*Pinus sp.*) is among them in Charghare (compare with Table 6). Dominant uses listed for Salla (*Pinus sp.*) were timber for construction, resin production as an income source, firewood as well as the needles are used as bedding for animals.

For Katunjee CF in Charghare, timber tree species like Saal (*Shorea robusta*), Chilaune (*Schima wallichii*) or Pharil/Jamun (*Syzygium cumini*, *Eugenia jambolana*) were mentioned. Bamboo was additionally listed (which was mentioned in relation to an income source when discussing dominant uses of species, see Table 6, but is usually also used for domestic uses)

At the same time, various species from the tree nursery are also provided for the private forest in Charghare (Ramche Kaplit private forest). Respondent #1 (40 years old) reported about fodder trees like Ipil (*Leucaena leucocephala*) or Padmero/Kutmero (*Litsea polyantha*) that were provided for planting, but also Salla (*Pinus sp.*), which are all among the species mentioned most frequently for a specific use in Charghare (Table 6). Furthermore, plantations of Bamboo as an income source, as well as Amriso (*Thysanolaena maxima*, broom grass), Mango (*Mangifera indica*, fruit tree), Chiuri (*Aesandra butyraceae*, fruit, timber and fodder tree), Koiralo (*Bauhinia variegata*, fodder) or Jalma (*unknown*) were mentioned as being provided for planting. However, some of these species do not always seem to survive due to the drought (for example Ipil or Amriso).

For Khanidanda, in terms of tree plantations in Thulo CF, Salla (*Pinus sp.*) and Chilaune (*Schima wallichii*) were mainly mentioned (above all timber trees and among the species mentioned most frequently for a specific use in Khanidanda). During the KII, it was also shared that Chiuri (*Aesandra butyraceae*) was planted when the community forest was established, with the idea of producing fruit and also fodder for animals, this tree species did however not survive due to the area being too dry. Regarding Salla trees (pine), it was reported that natural growth of this

species was already present when the community forest was established, and it was therefore chosen to be planted. In general, with regard to Thulo CF, it was often emphasised that trees regenerate naturally, so tree plantings are not really necessary anymore. Respondent #16 (27 years old) said in particular that species like Lalignurans (*Rhododendron arboretum*, used for firewood) or Kalikath (*Myrsine semiserrata*, used for timber or firewood) are not planted. When necessary, cleaning and pruning takes place.

For tree plantings on private land, one respondent mentioned Chilaune (*Schima wallichii*, above all a timber tree), Saur (*Betula alnoides*, timber and fodder tree) or Padmero (*Litsea polyantha*, fodder tree). The respondent explained that those are species “which are useful to us” (Respondent #18, 35 years old).

Comparing the tree species provided by the forest department for tree plantations with those mentioned by local women in relation to a particular use, it is interesting to see that the focus of the species provided by the forest department seems to be more on timber species or species that bring income, especially for community forests. It seems that tree species typically present in the area have been selected for plantations. Many of these species provided for planting are among the species most frequently mentioned by respondents for a specific use. Those aspects indicate that the species provided are useful for the local population, and that people’s needs seem to be overall met. However, in addition to the species reported to have been planted, there are more needs and species that exist in the area and that people value and use (as shown in chapter 6.4.2).

Looking at the question if the community forestry model thus helps to encourage the species that people value, it might be said from the data shown here, that this would only be true to some extent. What remains somewhat unclear is whether, for example, fodder tree species grew already in sufficient abundance at the time of tree plantings, so there was less need to plant them, or why there seems to have been less focus on this. From discussions with researchers at SIAS, it can be confirmed that the prevailing view of foresters tends to be to promote timber trees in community forests. While local communities may have wanted forage tree species, it can be harder to establish them in community forests due to grazing lands. So, it is possible that forage trees were not provided by the forest department for community forests. However, the forest department did provide forage trees for smaller groups that managed smaller areas as leasehold forest user groups, or for planting trees on private land. This is because fodder trees are easier to establish in those areas. This would match the data shown here, however, it is hard to draw a final conclusion, and this point would have to be investigated more closely.

In terms of restoration planning and tree planting, it might be concluded that planted trees in the data shown here do meet some of the people’s needs. If planted trees are based on the wishes of local resource users, this can be positive. However, tree planting as opposed to natural regeneration should not be the only priority.

7 Discussion and conclusion

To answer the first research question of what we can learn from community forestry for broader people-centred restoration approaches, the empirical results were analysed in different subsections. Especially the dimensions of inclusion of women and creating local social benefits have been looked at. To answer the second research question, it has been examined how local women in community forestry in Nepal perceive planted forests and what aspects they value in their environment, as well as what kind of advantages and disadvantages of community forests are perceived when it comes to addressing women's needs.

In summary, the availability of forest products for domestic use (such as firewood, fodder, and timber) was found to be of central importance to rural women in this study, and forests are seen primarily as a resource. The availability of forest products (whether in the community forest or on private land) includes hereby, on the one hand, the availability of such products in the sense of the amount that can be collected in a short period of time. On the other hand, it also includes easy access (absence of bushes that make it difficult to collect or cut forage), as well as the proximity of the sites or easy walkability where collection of forest products takes place (no slopes or steep hills). The aspect of forest as a resource can be linked in parts to findings of a study by Robbins (2000), where pastoralists (men and women) see the forest as a fodder reserve, and marginal producers and non-pastoralist women see the forest as a famine reserve. In the study conducted for this thesis, women talk about forests as a resource for daily needs. This thesis therefore underscores how different parts of the local population can have different views and values in relation to forests. In this thesis, the importance of specifically looking at the needs of women as primary forest users in South Asia (and elsewhere), using forests the most in their daily lives, is highlighted.

Private land/grassland and agricultural land are particularly valued and perceived as especially useful by respondents in this study. Community forests play a major role in supporting livelihoods and providing benefits, but private land is also becoming increasingly important. While community forestry as a way of governing forests is generally perceived as very positive, it must be noted that the community forests are only open for a few days at certain times during a year for the collection of forest products. Drawing on Agarwal's (2001) work on participatory exclusions, it is particularly important to include women as key forest

users in decisions about opening hours, as there may be seasons when women are more or less reliant on the forest (Ojha, Persha and Chhatre, 2010). Women might for example have preferences in terms of opening times that are more suitable for them, such as when to collect forage because supplies have been depleted versus when they still have a stock of dry fodder (Agarwal, 2001, p. 1628).

Restrictions regarding usage of community forests are perceived by participants in this study as positive for the sake of protecting/conserving the forest. Increased plant growth and natural regeneration can be observed with an overall positive impact on the general state of the forests (in terms of forest growth and increase in forest products), compared to rather bare forests before the establishment of community forests. Connecting this to the benefits dimension in people-centred restoration included in the research question, it may nevertheless be questioned to what extent community forests and local institutions are actually responding to people's daily needs if establishing a community forest means that only limited access to the forests is allowed. As mentioned above, different perspectives and more negative points might have been revealed more clearly through more extensive probes for such negative points. Also, more conversations with alone or elder women as particularly marginalised community members could possibly have brought out more critical points towards community forestry and restrictions.

In this regard, it is worth drawing attention back to statements made by Agarwal (2009). Here, it was said that in terms of forest restoration, women might, for example, bear disproportionate costs from forest closure or restricted forest use. This may reflect in different values and concerns regarding daily needs and restoration activities. In the study conducted for this thesis, forest closure results in having to use alternative sites for forest product collection (especially firewood and livestock fodder), whereby alternative sites here emerge in terms of private land (including shared private forests). Disproportionate costs arise especially for women who do not have enough land to support their livelihoods from it. Although many of the respondents in the study conducted here appear to have the opportunity to benefit sufficiently from their own land when community forests are closed and indicate that they can easily collect firewood or fodder from their farmland and grassland, it is particularly important to be aware that this is not the case for all. In a study by Agarwal (2001) for example, it was quoted from an interview that, in regards to collecting firewood for cooking and forest closure, especially "Women of landless or landpoor households are [...] worst off, since without private land they have no crop waste or trees of their own, and few cattle for dung" (p. 1634). Also Khatri *et al.* (2018) noted that in Nepal, particularly poorer households having limited land do not have many trees and are therefore more dependent on the community forest. In contrast, better-off farmers are not necessarily affected by restricted access to community forests, as they have more trees on their farmland.

Connecting this to the dimension of inclusion in people-centred restoration approaches, such inequalities need to be considered for future restoration planning, and when looking at the role of community forestry in restoration approaches. The necessity of using more private land for the collection of forest products can be discussed as a positive point in terms of more tree planting, meaning that community forests can regenerate while additional tree plantings take place on private land. However, this effect would need to be investigated in more detail.

The effects of out-migration as a livelihood strategy on the management of local forests, including community forests, should also be mentioned. Out-migration is a common contributor to forest regeneration, for example because of a decline in the rural population and abandonment of agricultural land that might be colonized again by trees and shrubs (Chhetri *et al.*, 2021). However, it needs to be said that there are complexities in the relationship between remittances and land use and that such impacts can be very site-specific (Chhetri *et al.*, 2021; KC *et al.*, 2021). This will therefore not be further discussed here. In terms of community forest vs. private land use, it was noted by KC *et al.* (2021) that in Nepal's middle hills, forage/grass use from community forests declined significantly because of a complex range of reasons, as did firewood collection and timber consumption. For example, decreased numbers of resident family members and livestock, improved access to other energy sources instead of firewood or improved stoves, forests that have become denser and less easy to access, or restrictions on the use of forest products from community forests can be mentioned here. It was found that the reduced demand is more and more met from trees or forests growing on private agricultural land (regenerated forests and trees planted on abandoned agricultural land), also for reasons of convenience and flexibility (KC *et al.*, 2021).

Looking further at which tree species were mentioned by respondents in relation to a particular use, it is noticeable that in this study, with the exception of pine, mainly different broadleaf species were mentioned. The predominant uses of trees, shrubs, and grass species were named almost exclusively in terms of domestic use value (fodder purposes, timber for building houses and animal shelters, firewood, material for animal bedding, and some fruit trees for eating purposes). Species that have monetary value or are for sale are mentioned much less frequently by female respondents. As mentioned in chapter 2.1.4, gender-specific differences in how forests are seen by local people in different regions were indicated in previous studies. For men, for example, a stronger emphasis on forests related to timber harvesting (Samndong and Kjosavik, 2017), or trees of high economic value (Sari *et al.*, 2020), could be identified. In this thesis, the focus was primarily on the views of rural women and what they value. It is therefore not feasible to draw any conclusions about gendered group distinctions about how people relate to tree species (or whether males and females differ in their values towards the surrounding landscape). However, the way in which women relate to the tree, shrub, or grass

species gives an indication of which species are important for which purposes in everyday life.

It is interesting to see that the focus of the species provided by the forest department for the study areas of this study seems to be more on timber species and species that bring income, especially for community forests. Many of these species provided for planting are among the species mentioned by respondents for a specific use, which indicates that the species provided are useful for the local population indeed. In addition to the species reported to have been planted, there are however more needs and species that exist in the area and that people value and use. It can generally be said that more attention should be paid to what tree species different parts of the local population value (and why) when it comes to restoration planning.

Talking about creating benefits in contemporary restoration debates, an important point to make is that the different elements that various resource users want and see as beneficial need to be considered in detail. The results of this thesis demonstrate that there are many different aspects people care about, as well as different species that are valued for their livelihoods. This needs to be considered.

A more detailed analysis of how perceptions of the usefulness or non-usefulness of products, areas, and species in the landscape differ between groups (e.g. between men and women), would be interesting for further research and could provide further insight into how responsive institutions or restoration efforts are towards different groups or individuals of the local population. In future studies, it would also be worthwhile investigating more specifically how different individuals or groups of communities envision the forest and species in the future, and how species preferences would be ranked in terms of use value. Further aspects that might have an influence on how people relate to tree species and could be investigated in more detail are for example class/caste or education.

Looking at the parts of the landscape where the mentioned species occur, it could be seen that while existing community forests are among them, it is also own/agricultural land or private forest that are mentioned to provide these species. This can be linked back to the aspect that some respondents value being able to use their own land whenever they wish and because it's close (also seen in KC *et al.*, 2021). The role of community forests as a social place and providing protection against landslides and erosion should however not be ignored.

The points mentioned here provide deeper insight into rural women's needs with respect to forests and provides reflections on what restoration outcomes might be worth pursuing that would actually benefit the primary users of forests. The empirical findings also highlighted why considering participation in respondents' decision-making processes is particularly relevant in this study context. Using feminist political ecology of restoration (Elias, Joshi and Meinzen-Dick, 2021) and participatory exclusion (Agarwal, 2001), several gender factors combined with education and age were also shown to influence participants' participation in

CFUGs as local resource management institutions in this study. Consistent with previous studies demonstrating the influence of gender roles on decision-making in community-based reforestation projects, it can be confirmed, particularly in Nepal, that while policies increasingly prioritize a gender balance in decision-making, in practice women are still often marginalized in decision-making (Giri and Darnhofer, 2010a; Bhattarai, 2020; Pandey and Pokhrel, 2021).

Reflecting on why livelihood benefits from community forestry can be seen even though participatory exclusions exist, community forestry can be regarded as a model that has generally given more power to local people compared to the past. This has for example resulted in better forest conditions in the study sites chosen for this thesis, compared to before community forests have been established (see chapters 6.4.5 and 6.4.6). Such aspects are for example shown as respondents talk about a general increase of forest and availability of forest products. Due to such improvements of regeneration and benefits, local resource users in this study are overall very supportive of community forestry as a way of governing forests. They make the closure of community forests responsible for the increased plant growth (referring to community forestry in terms of protection/conservation of the forests, enabling increased plant growth), which is an important point to consider for community forestry as a model for restoration. While the overall trend of including more women in decision-making positions of CFUGs might be positive as policy is increasingly prioritizing it, participation of all parts of a community, in particular for women, does not happen automatically. What that means in terms of learnings from community forestry for people-centred restoration, is that if the dimension of inclusion is to be a priority of restoration approaches, work needs to be done to make local institutions more equitable over the long-term. Inclusion of different groups of communities does not simply happen by giving power to local communities, as they are not homogenous groups and often have hierarchical structures. Indeed, it is argued that forestry institutions can reinforce the larger patriarchal social structures that are deeply embedded in contexts such as Nepal (Bhattarai, 2020). It can be seen as conflicting that while power is supposed to be transferred to local communities, at the same time this power is expected to be applied in certain ways (namely not in such a way that, for example, only men or elites carry out decisions). Such social structures cannot be overcome overnight. Nevertheless, as mentioned at the beginning, it should be noted that women's presence in meetings of CFUGs or, for example, requirements such as reserved seats can certainly be seen as positive, despite participatory exclusions. Being present during meetings as a first step can be a way forward towards changing societal values and beliefs, as well as women's role in the community. Accordingly, to address this issue, Giri and Darnhofer (2010a) conclude that structural changes like women's quotas in committees (initiated externally), can be an important enabling measure to "create an institutionalized space for women's participation"

(Giri and Darnhofer, 2010a, p. 1227). This space can then be used in the next step to try out different ways of behaving and is therefore “a crucial platform for this negotiation process [...] where the traditional social order can be contested“ (Giri and Darnhofer, 2010a, p. 1227). Hereby, it has been argued that social norms should not be seen as stable, but as a process. It is therefore possible to “redefine what is considered acceptable behavior for women“ (Giri and Darnhofer, 2010a, p. 1219). Providing opportunities for women to experiment with leadership in institutionalised spaces and gain confidence may provide an opportunity to ultimately bring about shifts in values and beliefs (Nightingale, 2006; Giri and Darnhofer, 2010a; Arora-Jonsson, 2012, chap. 7; Fischer, 2021). To conclude, it can be said that besides external means that allow for structural change and create possibilities to participate, women’s capacity (e.g. obtained through formal and informal education and training), as well as their agency and active engagement is critical to achieve the necessary social change.

Overall, demands to make restoration people-centred and to work WITH people are supported by this study. Although there are inequalities in community forestry in the study sites, and participatory exclusions can be found, it can be concluded that community forestry can be a part of restoration and is perceived by local people as generally positive. Since local people have many different values regarding forests and their landscape, they must not be left out, but must be part of restoration. For future restoration approaches, we thereby need to actually look at what is valuable to different local resource users and pay attention to whose opinions are represented, and whose remain silent. People who depend on their direct environment and the landscape for their livelihoods have certain ideas and preferences what works for them and what does not. Although forest restoration is talked about in the context of including local people, too little attention is paid so far to what specific aspects different individuals and especially marginalized parts of communities actually DO value. Especially various tree species that different groups of people prefer and from which they derive benefits need to be considered more.

This study contributes to providing a detailed understanding of the specific values and perspectives of local women towards community forests and the surrounding landscape in rural Nepal as an example. Based on the answers of the respondents, it can be summarized that a “good forest” and benefits in the landscape in this context are provided through the following aspects: a variety of broadleaf tree species that provide products with domestic use value; availability and easy accessibility of products for domestic use (e.g. fodder and firewood, but also timber for construction); close, easy, safe and most importantly sustained access to collection sites to fulfil people’s daily needs; forests that serve as social places; forests that serve for provisioning shade, air, coolness, or water, and for protection from landslides/erosion. Community forestry can help to support these aspects.

References

- Agarwal, B. (2001) 'Participatory Exclusions, Community Forestry, and Gender: An Analysis for South Asia and a Conceptual Framework', *World Development*, 29(10), pp. 1623–1648. Available at: [https://doi.org/10.1016/S0305-750X\(01\)00066-3](https://doi.org/10.1016/S0305-750X(01)00066-3).
- Agarwal, B. (2009) 'Gender and forest conservation: The impact of women's participation in community forest governance', *Ecological Economics*, 68(11), pp. 2785–2799. Available at: <https://doi.org/10.1016/j.ecolecon.2009.04.025>.
- Agrawal, A. and Ribot, J. (1999) 'Accountability in Decentralization: A Framework with South Asian and West African Cases', *The Journal of developing areas*, 33(4), pp. 473–502.
- Arnstein, S.R. (1969) 'A Ladder Of Citizen Participation', *Journal of the American Institute of Planners*, 35(4), pp. 216–224. Available at: <https://doi.org/10.1080/01944366908977225>.
- Arora-Jonsson, S. (2012) *Gender, Development and Environmental Governance: Theorizing Connections*. New York: Routledge. Available at: <https://doi.org/10.4324/9780203106808>.
- Bhandari, P.K.C. *et al.* (2018) 'Looking women seriously: what makes differences for women participation in community forestry?', *Banko Janakari*, 28(2), pp. 13–22. Available at: <https://doi.org/10.3126/banko.v28i2.24184>.
- Bhattarai, B. (2020) 'How do gender relations shape a community's ability to adapt to climate change? Insights from Nepal's community forestry', *Climate and Development*, 12(10), pp. 876–887. Available at: <https://doi.org/10.1080/17565529.2019.1701971>.
- BMU (2014) *New York Declaration on Forests, Forest Declaration*. Available at: <https://forestdeclaration.org/about/new-york-declaration-on-forests/> (Accessed: 5 May 2023).
- CBD (2010) *Aichi Biodiversity Targets, Convention on Biological Diversity*. Secretariat of the Convention on Biological Diversity. Available at: <https://www.cbd.int/sp/targets/> (Accessed: 5 May 2023).
- Chao, S. (2012) *FOREST PEOPLES: Numbers across the world*. United Kingdom: Forest Peoples Programme. Available at: <https://www.iucn.org/content/forest-peoples-numbers-across-world> (Accessed: 4 May 2023).
- Chazdon, R.L. *et al.* (2015) 'A Policy-Driven Knowledge Agenda for Global Forest and Landscape Restoration', *Conservation Letters*, 10(1), pp. 125–132. Available at: <https://doi.org/10.1111/conl.12220>.

- Chhetri, R. *et al.* (2021) 'Forest, agriculture, and migration: contemplating the future of forestry and agriculture in the middle-hills of Nepal', *The Journal of Peasant Studies*, 50(1), pp. 411–433. Available at: <https://doi.org/10.1080/03066150.2021.1978983>.
- Climate Data (2022) *Ramechhap climate: Temperature Ramechhap & Weather By Month*, *Climate-Data.org*. Available at: <https://en.climate-data.org/asia/nepal/central-development-region/ramechhap-1025394/> (Accessed: 1 May 2023).
- Coleman, E.A. *et al.* (2021) 'Limited effects of tree planting on forest canopy cover and rural livelihoods in Northern India', *Nature Sustainability*, 4(11), pp. 997–1004. Available at: <https://doi.org/10.1038/s41893-021-00761-z>.
- Coleman, E.A. and Mwangi, E. (2013) 'Women's participation in forest management: A cross-country analysis', *Global Environmental Change*, 23(1), pp. 193–205. Available at: <https://doi.org/10.1016/j.gloenvcha.2012.10.005>.
- Cornwall, A. (2003) 'Whose Voices? Whose Choices? Reflections on Gender and Participatory Development', *World development*, 31(8), pp. 1325–1342. Available at: [https://doi.org/10.1016/S0305-750X\(03\)00086-X](https://doi.org/10.1016/S0305-750X(03)00086-X).
- Dressler, W. *et al.* (2010) 'From hope to crisis and back again? A critical history of the global CBNRM narrative', *Environmental Conservation*, 37(1), pp. 5–15. Available at: <https://doi.org/10.1017/S0376892910000044>.
- Dudley, N. (2005) 'Impact of Forest Loss and Degradation on Biodiversity', in *Forest Restoration in Landscapes. Beyond Planting Trees*. New York: Springer-Verlag, pp. 17–21. Available at: https://doi.org/10.1007/0-387-29112-1_3.
- EHRP Nepal (no date) 'Ramechhap Map'. Available at: <https://ehrpinspection.nra.gov.np/maps?district=21> (Accessed: 1 May 2023).
- Elias, M. *et al.* (2022) 'Ten people-centered rules for socially sustainable ecosystem restoration', *Restoration Ecology*, 30(4). Available at: <https://doi.org/10.1111/rec.13574>.
- Elias, M., Joshi, D. and Meinzen-Dick, R. (2021) 'Restoration for Whom, by Whom? A Feminist Political Ecology of Restoration', *Ecological Restoration*, 39(1–2), pp. 3–15. Available at: <https://doi.org/10.3368/er.39.1-2.3>.
- Erbaugh, J.T. *et al.* (2020) 'Global forest restoration and the importance of prioritizing local communities', *Nature Ecology & Evolution*, 4(11), pp. 1472–1476. Available at: <https://doi.org/10.1038/s41559-020-01282-2>.
- FAO (2015) *Community-based forestry, Food and Agriculture Organization of the United Nations*. Available at: <https://www.fao.org/forestry/participatory/90732/en/> (Accessed: 4 January 2023).
- FAO (2020) *Global Forest Resources Assessment 2020. Terms and Definitions*. Rome: FAO Forestry Department. Available at: <https://www.fao.org/3/I8661EN/i8661en.pdf>.
- FECOFUN (2023) *Federation of Community Forestry Users Nepal. Introduction*. Available at: <http://fecofun.org.np/introduction> (Accessed: 29 April 2023).
- Fischer, H.W. (2021) 'Decentralization and the governance of climate adaptation: Situating community-based planning within broader trajectories of political

- transformation’, *World Development*, 140, p. 105335. Available at: <https://doi.org/10.1016/j.worlddev.2020.105335>.
- Fleischman, F. *et al.* (2020) ‘Pitfalls of Tree Planting Show Why We Need People-Centered Natural Climate Solutions’, *BioScience*, p. biaa094. Available at: <https://doi.org/10.1093/biosci/biaa094>.
- Fleischman, F. *et al.* (2022) ‘Restoration prioritization must be informed by marginalized people’, *Nature*, 607(7918), pp. E5–E6. Available at: <https://doi.org/10.1038/s41586-022-04733-x>.
- Gautam, A.P. *et al.* (2003) ‘Land use dynamics and landscape change pattern in a mountain watershed in Nepal’, *Agriculture, Ecosystems & Environment*, 99(1–3), pp. 83–96. Available at: [https://doi.org/10.1016/S0167-8809\(03\)00148-8](https://doi.org/10.1016/S0167-8809(03)00148-8).
- Gautam, A.P., Shivakoti, G.P. and Webb, E.L. (2004) ‘A review of forest policies, institutions, and changes in the resource condition in Nepal’, *International Forestry Review*, 6(2), pp. 136–148. Available at: <https://doi.org/10.1505/ifer.6.2.136.38397>.
- Ghimire, P. and Lamichhane, U. (2020) ‘Community Based Forest Management in Nepal: Current Status, Successes and Challenges’, *Grassroots Journal of Natural Resources*, 3(2), pp. 16–29. Available at: <https://doi.org/10.33002/nr2581.6853.03022>.
- Giri, K. and Darnhofer, I. (2010a) ‘Nepali Women Using Community Forestry as a Platform for Social Change’, *Society & Natural Resources*, 23(12), pp. 1216–1229. Available at: <https://doi.org/10.1080/08941921003620533>.
- Giri, K. and Darnhofer, I. (2010b) ‘Outmigrating men: A window of opportunity for women’s participation in community forestry?’, *Scandinavian Journal of Forest Research*, 25(sup9), pp. 55–61. Available at: <https://doi.org/10.1080/02827581.2010.506769>.
- Guarascio, F. *et al.* (2013) *Forest, food security and gender: linkages, disparities and priorities for action. Background paper for the International Conference on Forests for Food Security and Nutrition*. Available at: <https://www.cifor.org/knowledge/publication/4912/> (Accessed: 22 March 2023).
- Hobley, M. (2010) ‘The Impacts of Degradation and Forest Loss on Human Well-Being and Its Social and Political Relevance for Restoration’, in *Forest Restoration in Landscapes. Beyond Planting Trees*. New York, NY: Springer-Verlag New York Inc, pp. 22–30. Available at: https://doi.org/10.1007/0-387-29112-1_4.
- IPBES (2018) *The IPBES assessment report on land degradation and restoration*. Bonn, Germany: Secretariat of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services. Available at: <https://doi.org/10.5281/ZENODO.3237392>.
- IPBES (2019) *Global assessment report on biodiversity and ecosystem services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services*. Zenodo. Available at: <https://doi.org/10.5281/ZENODO.3831673>.
- IPCC (2003) *Good practice guidance for land use, land-use change and forestry. The Intergovernmental Panel on Climate Change*. Edited by J. Penman. Hayama,

- Kanagawa. Available at: https://www.ipcc-nggip.iges.or.jp/public/gpplulucf/gpplulucf_files/GPG_LULUCF_FULL.pdf.
- IUCN (2011) *The Bonn Challenge, Restore Our Future - Bonn Challenge*. Available at: <https://www.bonnchallenge.org/> (Accessed: 28 April 2023).
- IUCN (2020) *The Bonn Challenge. Regional Action*. Available at: <https://www.bonnchallenge.org/regional-action> (Accessed: 5 May 2023).
- Joshi, N. and Dongol, R. (2018) ‘Severity of climate induced drought and its impact on migration: a study of Ramechhap District, Nepal’, *Tropical Agricultural Research*, 29(2), p. 194. Available at: <https://doi.org/10.4038/tar.v29i2.8289>.
- KC, B. *et al.* (2021) ‘Changing Rural Livelihoods and Forest Use Transition in the Middle Hills of Nepal’, *Small-scale Forestry*, 20(3), pp. 479–501. Available at: <https://doi.org/10.1007/s11842-021-09477-6>.
- Khatri, D.B. *et al.* (2018) ‘Shifting regimes of management and uses of forests: What might REDD+ implementation mean for community forestry? Evidence from Nepal’, *Forest Policy and Economics*, 92, pp. 1–10. Available at: <https://doi.org/10.1016/j.forpol.2018.03.005>.
- Laestadius, L. *et al.* (2015) ‘Before Bonn and beyond: The history and future of forest landscape restoration’, *Unasylva*, 245(Vol. 66 2015/3), p. 11.
- Laudari, H.K. *et al.* (2022) ‘Sixty-five years of forest restoration in Nepal: Lessons learned and way forward’, *Land Use Policy*, 115, p. 106033. Available at: <https://doi.org/10.1016/j.landusepol.2022.106033>.
- Lee, H. (2021) ‘Afforestation, reforestation, forest restoration’, *Bjerknes Centre for Climate Research*, 17 March. Available at: <https://bjerknes.uib.no/en/article/news/afforestation-reforestation-forest-restoration> (Accessed: 4 May 2023).
- Mansourian, S. (2005) ‘Overview of Forest Restoration Strategies and Terms’, in *Forest Restoration in Landscapes. Beyond Planting Trees*. New York: Springer-Verlag, pp. 8–13. Available at: https://doi.org/10.1007/0-387-29112-1_2.
- Marquardt, K., Pain, A. and Khatri, D.B. (2020) ‘Re-reading Nepalese landscapes: labour, water, farming patches and trees’, *Forests, Trees and Livelihoods*, 29(4), pp. 238–259. Available at: <https://doi.org/10.1080/14728028.2020.1814875>.
- McDermott, M.H. and Schreckenber, K. (2009) ‘Equity in community forestry: insights from North and South’, *International Forestry Review*, 11(2), pp. 157–170. Available at: <https://doi.org/10.1505/ifor.11.2.157>.
- Miller, D.C. and Hajjar, R. (2020) ‘Forests as pathways to prosperity: Empirical insights and conceptual advances’, *World Development*, 125, p. 104647. Available at: <https://doi.org/10.1016/j.worlddev.2019.104647>.
- Nepal Archives (2016) ‘Map of Ramechhap Municipality, Ramechhap, Nepal’. Available at: <https://www.nepalarchives.com/map-of-ramechhap-municipality-ramechhap-nepal/> (Accessed: 1 May 2023).
- Nightingale, A. (2006) ‘The Nature of Gender: Work, Gender, and Environment’, *Environment and Planning D: Society and Space*, 24(2), pp. 165–185. Available at: <https://doi.org/10.1068/d01k>.

- Nightingale, A.J., Gonda, N. and Eriksen, S.H. (2022) 'Affective adaptation = effective transformation? Shifting the politics of climate change adaptation and transformation from the status quo', *WIREs Climate Change*, 13(1). Available at: <https://doi.org/10.1002/wcc.740>.
- NordNordWest (2019) 'Ramechhap District in Nepal 2015'. Available at: https://commons.wikimedia.org/wiki/File:Ramechhap_District_in_Nepal_2015.svg (Accessed: 1 May 2023).
- Ojha, H., Persha, L. and Chhatre, A. (2010) 'Community forestry in Nepal: a policy innovation for local livelihoods'. Available at: https://www.researchgate.net/publication/239807424_Community_forestry_in_Nepal_a_policy_innovation_for_local_livelihoods.
- Oldekop, J.A. *et al.* (2019) 'Reductions in deforestation and poverty from decentralized forest management in Nepal', *Nature Sustainability*, 2(5), pp. 421–428. Available at: <https://doi.org/10.1038/s41893-019-0277-3>.
- Osborne, T. *et al.* (2021) 'The political ecology playbook for ecosystem restoration: Principles for effective, equitable, and transformative landscapes', *Global Environmental Change*, 70, p. 102320. Available at: <https://doi.org/10.1016/j.gloenvcha.2021.102320>.
- Pandey, H.P. and Pokhrel, N.P. (2021) 'Formation trend analysis and gender inclusion in community forests of Nepal', *Trees, Forests and People*, 5, p. 100106. Available at: <https://doi.org/10.1016/j.tfp.2021.100106>.
- Paudel, G., Carr, J. and Munro, P. (2022) 'Community forestry in Nepal: a critical review', *International Forestry Review*, 24, pp. 43–58. Available at: <https://doi.org/10.1505/146554822835224810>.
- Ramechhap Municipality (2019) *Ward no.5, Rampur | Ramechhap Municipality*. Available at: <https://ramechhapmun.gov.np/en/content/ward-no5-rampur> (Accessed: 1 May 2023).
- Resurrección, B.P. and Elmhirst, R. (2020) *Negotiating Gender Expertise in Environment and Development: Voices from Feminist Political Ecology*. 1st edn. London: Routledge. Available at: <https://doi.org/10.4324/9781351175180>.
- Ribot, J.C. (2003) 'Democratic decentralisation of natural resources: institutional choice and discretionary power transfers in Sub-Saharan Africa', *Public Administration and Development*, 23(1), pp. 53–65. Available at: <https://doi.org/10.1002/pad.259>.
- Robbins, P. (2000) 'The Practical Politics of Knowing: State Environmental Knowledge and Local Political Economy', *Economic Geography*, 76(2), p. 126. Available at: <https://doi.org/10.2307/144550>.
- Robbins, P. (2011) *Political Ecology: A Critical Introduction Second Edition*. United States: John Wiley & Sons, Incorporated.
- Robson, C. and McCartan, K. (2016) *Real world research: a resource for users of social research methods in applied settings*. Fourth edition. Chichester: Wiley.
- Samndong, R.A. and Kjosavik, D.J. (2017) 'Gendered forests: exploring gender dimensions in forest governance and REDD+ in Équateur Province,

- Democratic Republic of Congo (DRC)', *Ecology and Society*, 22(4), p. art34. Available at: <https://doi.org/10.5751/ES-09753-220434>.
- Sandström, E. (2008) 'Reinventing the commons : exploring the emergence of local natural resource management arrangements', *Acta Universitatis Agriculturae Sueciae* [Preprint]. Edited by Department of Urban and Rural Development, Swedish University of Agricultural Sciences, (2008:48). Available at: <https://res.slu.se/id/publ/18676> (Accessed: 8 May 2023).
- Sari, R. *et al.* (2020) 'Gendered Species Preferences Link Tree Diversity and Carbon Stocks in Cacao Agroforest in Southeast Sulawesi, Indonesia', *Land*, 9(4), p. 108. Available at: <https://doi.org/10.3390/land9040108>.
- Shrestha, A. *et al.* (2015) 'An Assessment of Drought in Ramechhap District'. Available at: <http://dx.doi.org/10.13140/RG.2.2.29867.59686>.
- Singh, N.M. (2013) 'The affective labor of growing forests and the becoming of environmental subjects: Rethinking environmentalism in Odisha, India', *Geoforum*, 47, pp. 189–198. Available at: <https://doi.org/10.1016/j.geoforum.2013.01.010>.
- Strassburg, B.B.N. *et al.* (2020) 'Global priority areas for ecosystem restoration', *Nature*, 586(7831), pp. 724–729. Available at: <https://doi.org/10.1038/s41586-020-2784-9>.
- Temperton, V.M. *et al.* (2019) 'Step back from the forest and step up to the Bonn Challenge: how a broad ecological perspective can promote successful landscape restoration', *Restoration ecology*, 27(4), pp. 705–719. Available at: <https://doi.org/10.1111/rec.12989>.
- UN (2019) *What is Ecosystem Restoration?*, *UN Decade on Restoration*. Available at: <http://www.decadeonrestoration.org/what-ecosystem-restoration> (Accessed: 12 May 2023).
- UN (2021) *Glasgow Leaders' Declaration on Forests and Land Use, UN Climate Change Conference (COP26) at the SEC – Glasgow 2021*. Available at: <https://ukcop26.org/glasgow-leaders-declaration-on-forests-and-land-use/> (Accessed: 5 May 2023).
- UNECE (2022) 'National Policy Guiding Principles for Forest Landscape Restoration. Supporting countries to deliver on their Bonn Challenge commitments within the UN Decade on Ecosystem Restoration 2021-2030'. Available at: <https://unece.org/forestry-timber/documents/2022/07/informal-documents/policy-brief-national-policy-guiding> (Accessed: 28 April 2023).
- UNEP (2019) *New UN Decade on Ecosystem Restoration to inspire bold UN Environment Assembly decisions, UN environment programme*. Available at: <http://www.unep.org/news-and-stories/story/new-un-decade-ecosystem-restoration-inspire-bold-un-environment-assembly> (Accessed: 28 April 2023).
- United Nations (2021) *Global Forest Goals Report 2021. Realizing the importance of forests in a changing world*. United Nations Department of Economic and Social Affairs, United Nations Forum on Forests Secretariat. Available at: <https://www.un.org/en/desa/global-forest-goals-report-2021> (Accessed: 8 May 2023).

Weeden, M. (2020) *How Planting Trees Helps the UN Sustainable Development Goals - One Tree Planted*. Available at:

<https://onetreepanted.org/blogs/stories/reforestation-sustainable-development-goals> (Accessed: 29 December 2022).

Wijsman, K. and Feagan, M. (2019) 'Rethinking knowledge systems for urban resilience: Feminist and decolonial contributions to just transformations', *Environmental Science & Policy*, 98, pp. 70–76. Available at:

<https://doi.org/10.1016/j.envsci.2019.04.017>.

Popular science summary

Restoration efforts can be seen as crucial in combating global challenges such as the climate crisis, deforestation, and land degradation. However, these initiatives have been criticised for disregarding social and political factors, which has a negative impact on ecosystems and local communities. To address these concerns, explicit strategies that go beyond vague calls for participation are needed to effectively incorporate people into restoration planning. A key element in making restoration more people-centred (put people first) is ensuring the rights of local communities, so they can make informed decisions about the forests they depend on. Community forestry, which gives local communities rights and authority to manage forests, offers a potential model for more inclusive restoration practices and to provide benefits to local people.

In this thesis, two villages in the middle hills of Nepal serve as a case study to examine the impact of community-based reforestation programs on local people. The thesis pays particular attention to the perceptions of rural women, who are the ones using forests the most in everyday life in Nepal. Interviews with rural women reveal that while inequalities and exclusion of women in decision-making processes exist within community forestry in the study sites, female respondents overall express strong support for this approach to forest governance. They credit community forestry for allowing more trees to grow. The women also identify several aspects they value in a “good” forest. These include for example a diverse range of broadleaf tree species that are valuable for domestic use as well as easy access to products for daily needs (such as fodder for animals, firewood for cooking, and timber for construction). Further aspects the women value are safe and sustained access to collection sites, forests as social spaces, and the provision of shade, air, coolness, water. Also, protection against landslides and erosion is an aspect valued in a “good” forest.

Community forestry has the potential to support these aspects. However, if social inclusion is to be a priority in people-centred restoration approaches, efforts must be made to enhance long-term equity within local institutions. With more emphasis on these challenges, community forestry could serve as a model for people-centred restoration practices that benefit both ecosystems and local resource users.

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Appendix 1

Interview Guide, based on (Robson and McCartan, 2016, p. 294)

Thematic Block	Interview Questions
<p>Introduction</p>	<p>Introduction of interviewer and translating person:</p> <p><i>Name</i></p> <p><i>Study program and topic of the thesis</i></p> <p><i>Emphasise that the interviews are for the purpose of education (be aware of people’s expectations); clarify that some of the things that are talked about would be used for writing the thesis</i></p> <p><i>Thank you for your participation.</i></p> <p>Confidentiality</p> <p><i>Data will be handled anonymously; no names will be used in any written reports that come out of this study, responses will be treated in strictest confidence</i></p> <p>About the questions</p> <p><i>If there are any questions that might seem very broad, a bit silly or difficult to answer, that’s okay. Sometimes questions are more suitable to one person than to another. But there are no right or wrong answers, so if there’s such a case, please answer the questions the best you can. I’m only interested in your opinion and personal experiences.</i></p> <p><i>Also, please feel free to interrupt any time and ask questions if I need to clarify anything.</i></p> <p><i>If there are any questions that make you feel uncomfortable or you do not wish to answer, please do not hesitate to tell me.</i></p> <p>Permission to record the interview and take notes!</p> <p><i>Is it okay if I record the interview and write down some notes, so it’s possible to later go through what you have said?</i></p>
<p>Warm-up: Background information about the participants and their livelihoods</p>	<ol style="list-style-type: none"> 1. <i>Please tell me a little bit about yourself (age, caste, religion)</i> <ol style="list-style-type: none"> a. <i>What do you do for a living?</i> b. <i>What are the main livelihood income sources in your household (also of other family members)? Do they support you in any way?</i> 2. <i>Are you married?</i> <p>If yes:</p> <ol style="list-style-type: none"> 3. <i>Who else lives in your house?</i> 4. <i>Do you have children? → If yes: How many?</i> 5. <i>How far did you go in your education?</i>

Thematic Block 1: Daily tasks of participants and forest use	<p>6. <i>How do you normally spend a typical day?</i></p> <ol style="list-style-type: none"> <i>When do you do these things during the day?</i> <i>Has there been in how often you do these things?</i> <p>7. <i>Do you use the forest?</i></p> <p>If yes:</p> <p>8. <i>Which forest do you use?</i></p> <p>9. <i>How / for what purposes do you use the forest?</i> (e.g. timber harvesting, collect fuel wood, fodder, fruit, ...)</p> <ul style="list-style-type: none"> - Fuelwood – <i>do you have other ways to cook?</i> (to find out about alternatives such as gas stove etc.) - Collect fodder (indirectly figure out if they have enough and trough this maybe lead to restrictions in the CFUG (follow up with questions like <i>Who says that? Is it a problem for other households</i>, etc.) - Grazing – follow up with questions like <i>how many animals do you have / do you use other grazing lands?</i> - Timber harvesting (be careful, can be a tricky question, might be restricted in the CFUG, but people might do it anyway) - Medicinal plants - Food products (forest foods, tubers, veggies, spices / flavouring etc.) - ... <p>10. <i>What times of the year do you collect those products?</i></p> <p>11. <i>Do you sell any of the products?</i> → If yes: <i>Which ones?</i></p>
Thematic Block 2: Participation in decision-making in CFUG meetings	<p>12. <i>Are you member of the community forest user group or any other local governance decision-making body?</i></p> <p>13. <i>Have you ever been to a group meeting?</i> → If yes: <i>How often?</i></p> <p>14. <i>Have you ever said / brought up anything in a group meeting?</i></p> <p>If yes: a. <i>What did you bring up?</i> b. <i>Did anything change after you raised your voice?</i> <i>(If not: who do you think could influence this decision?)</i></p> <p>If no:</p> <p>15. <i>Is it easy for women to participate? Is it different for men?</i></p> <p>16. <i>Do you feel heard?</i></p> <p>17. <i>Do you think you can influence decisions?</i></p> <p>18. <i>Who would you say goes mostly to the meetings?</i> (not only in the household, but also who in the village)</p> <p>19. <i>Who speaks normally during the meetings?</i></p> <ol style="list-style-type: none"> <i>Who do you feel is mostly making decisions about the forests and the forest management?</i> <i>When different people bring different agendas to the meetings, how is decided which ones to include in the end?</i> <p>20. <i>Do you normally know / get information what kind of decisions are being made?</i></p> <p>21. <i>Did you ever take part in any activities around tree planting or forest management? Who tells you where and what to plant?</i></p>

**Thematic Block 3:
Feelings, beliefs
and attitudes
towards the
landscape and
forest use**

22. *We talked about the forest and different forest patches. When you think of the different forest patches and the landscape: what is it that you value about the forest / landscape?*
Note: does not only have to be species or products, these can be all sorts of different values.
23. *What about the forest or the landscape here is useful to you? (benefits/positive impacts)*
24. *What is not useful? (What is experienced as negative impacts?)*
25. *Are there any differences between the forest patches?*

If not mentioned before:

26. *I would like to talk more about different tree species: which species are in which forest? Which species do you use?*
27. *When you think about the plantation process, do you remember anything about how the landscape has changed over time?*
Note: Pay attention to different changes in the landscape in general in this village, e.g. changes in grasslands, grazing lands, agriculture, use of the landscape, more trees within farms, trees as additional lands etc.)
- Did anything change in how you cultivated on your lands?*
 - Has there been any changes in the amount of forest products?*

To follow up on different things that are said:

28. *How does this impact you?*
29. *Do you think tree planting is beneficial to you? / Do you think tree planting in general is important?*
- Is there anything you don't like about tree planting?*
 - Have there been any negative impacts for you personally because of tree planting?*
30. *When you think about the time when the trees here were planted: Do you remember anything about who was involved in the decision-making processes?*
31. *Are there any particular places in the forest that you like to visit?*
- Which ones?*
 - Why/Why not?*
32. *Why do you like to go to those places? How do you feel there?*
33. *What is a good forest to you? (Not only species)*
34. *In Nepal, people talk about, 'forest restoration' as a goal. How do you understand the word 'restoration'? What does the word mean to you?*
Note: make sure people understand that there's no right or wrong answer here, it's interesting what people think of it!

	<p>35. <i>What do you think about community forestry as a way of governing these forests?</i></p> <p>36. <i>What kind of restrictions do you have here in the Community Forestry User Group?</i></p> <p>37. <i>Do you think those restrictions are good/bad? → Why?</i></p>
<p>Cool-off and closure of the interview</p>	<p>38. <i>If you were the chief of this community forest user group / if you could decide what happens to the forest or in the landscape here, what would you change/decide?</i></p> <p>39. <i>Why would you decide to do the things you mentioned? / Why do you view this as important?</i></p> <p>40. <i>We are coming to the end of this interview now. Is there anything else you would like to mention with regards to the topics we talked about?</i></p> <p><i>Thank you very much again for taking the time to talk to us. We are very much appreciating it.</i></p>

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