

Status of Community-Based Forest Management in Selected South Asian Countries: Benefits, Challenges, and Key Lessons

Amrita Bhusal^{1*}, Nisha Dhungel¹, Pratima Chhetri¹, Shraddha Bhattarai¹, Suja Giri², Tek Raj Pathak¹, Ashish Khanal^{2,3}

¹Agriculture and Forestry University, College of Natural Resource and Management, Nepal

²Global Research Institute and Training Center, Kathmandu, Nepal

³Department of Energy and Environment, Teri School of Advanced Studies, New Delhi, India

*Corresponding author: bhusala95@gmail.com

Abstract: Community-based Forest management (CBFM) initiatives have been adopted to harness benefits from forests, such as carbon sequestration, weather regulation, and the conservation of vital drainage areas, while also generating income for local communities. However, there is a research gap in understanding the challenges and opportunities faced by these initiatives in South Asian countries. This study conducted a systematic literature review, focusing on the state of CBFM in Nepal, Bhutan, Sri Lanka, and Bangladesh, where these initiatives have gained significant attention. The findings indicate that CBFM initiatives in Nepal, Bangladesh, Bhutan, and Sri Lanka have yielded positive outcomes for rural livelihoods and environmental sustainability. Community-based forestry programs have a positive impact on livelihoods by providing income-generating opportunities, reducing poverty, and enhancing the economic well-being of local communities in these countries. Moreover, these initiatives have contributed to environmental conservation through increased forest cover, biodiversity preservation, and a reduction in deforestation. Social inclusion and empowerment have been promoted, with an emphasis on engaging marginalised groups. Despite these successes, challenges persist in resource availability, governance, and legal frameworks. Adaptive management, income diversification, and sustainable forest practices are critical lessons. Community forestry presents an opportunity for sustainable development that integrates environmental conservation, economic progress, and social well-being, with the potential to serve as a model for holistic and sustainable development in the region. This review emphasises the importance of addressing inequalities, improving governance, and strengthening institutional support in CBFM initiatives to unlock their full potential for sustainable development and forest conservation in these selected South Asian countries.

Keywords: Community forest, Forest user group, Forest management, South Asia

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1. Introduction

Community based forest management (CBFM) is an approach to forest governance that involves local communities in making decisions about the sustainable management and utilization of forest resources (Bowler et al., 2012). CBFM empowers these communities to actively participate in forest planning, conservation, and the equitable distribution of benefits, while often retaining the legal ownership of the forest under the government

jurisdiction (Baynes et al., 2015; Bowler et al., 2012; Maryudi et al., 2012). It aims to balance conservation, community livelihoods, and the long-term health of the forest ecosystem (Rahut et al., 2015). In developing nations, the share of forest resources managed through community-based methods is on the rise, encompassing an estimated 732 million hectares, which accounts for 28% of the world's forests and spans across 62 countries (Gilmour, 2016). Therefore, CBFM has gained global recognition as a source of subsistence and livelihoods for more than half a

billion people around the world (Baynes et al., 2015; Katila et al., 2017; RRI, 2016).

The community-based forest management (CBFM) programs, popularly known as community forestry, social forestry, participatory forestry, joint forest management, etc., have been promoted in many countries as an innovative and potential approach to improved forest management and conservation strategies with a comprehensive blend of ecological and socioeconomic objectives (Baynes et al., 2015; Bowler et al., 2012; Maryudi et al., 2012; Moorman et al., 2013). Realizing the adverse effect of strict approach of earlier forest management policies and management plans, where people had no involvement, the government has shifted policy focus and management regimes, emphasizing CBFM involving forest-dependent communities (Biswas & Choudhury, 2007). CBFM originated as a response to deforestation and the immediate need to fulfill the basic requirements for forest products by local communities (Gautam et al., 2004). As time passed, its achievements expanded beyond these primary goals, encompassing a wide range of challenges and embracing a more comprehensive set of objectives, including ensuring sustainable livelihoods, promoting gender equality and social inclusiveness, establishing good governance, and sustaining institutions, among others (Pokharel et al., 2007). More recently, CBFM has shifted its focus towards critical concerns like conserving biodiversity, adapting to climate change, participating in REDD+ initiatives, engaging in payment programs for environmental services (PES), and adopting a holistic approach to forest-landscape management (Ghimire & Lamichhane, 2020). Furthermore, the community-based forest management approach has evolved into an intricate interconnection of environmental concerns, livelihoods, and policy matters (Maraseni et al., 2014; Pathak et al., 2017; Pokharel et al., 2007). Many countries have now developed, or are in the process of developing, changes to national policies and legislation that institutionalize CBFM (Schreckenber & Luttrell, 2009). Within South Asia, Nepal, Sri Lanka, Bangladesh, and Bhutan have adopted unique approaches to CFM, tailor-made to their specific environmental and socio-economic context. These approaches range from decentralized governance models to participatory decision-making processes, reflecting the region's rich diversity (Balooni & Inoue, 2007). For instance, Nepal has pioneered decentralized governance models that empower local communities in decision-making (Dahal & Chapagain, 2008). In South Asia, Nepal is considered as the pioneer in CBFM (MoFSC, 1993). Community Forestry in Nepal has been very progressive and well known over the last three decades as an institutional innovation that enabled local users to control and manage forestry resources for the improvement of their livelihoods (Maharjan et al., 2009). About 15.67% of the total area of the country, 34.98% of its total forested area, 56.90% of total Households, and 62.68% of the total population of Nepal being engaged in community forestry (Pandey & Pokhrel, 2021). The neighboring country India has also been implementing CBFM in the name of joint forest management (JFM) since

1980s (Balooni & Inoue, 2009). Like India and Nepal, the government of Bangladesh, Sri Lanka and Bhutan also put emphasizes on CBFM since the early 1980s and a number of forestry projects have been implemented with the participation of local community having both success and failure in intended project outcomes (Gilmour, 2004; Nath et al., 2016; Tshering, 2006).

Despite the significance of CFM in South Asia, a critical research gap persists. Previous studies have often been fragmented, lacking a comprehensive assessment of CFM initiatives in the region (Baynes et al., 2015; Buffum et al., 2010; Ghimire & Lamichhane, 2020; Nath et al., 2016; Paudel et al., 2022; Shyamsundar & Ghate, 2014). This gap underscores the urgent need for a thorough review to better understand the complexities of community forest management (CFM) in South Asia. Therefore, this study aims to provide a complete overview of CFM programs in Nepal, Bhutan, Bangladesh, and Sri Lanka. By exploring their achievements and ongoing challenges, this study seeks to inform policies, guide practices, and inspire innovative approaches. The insights gained have the potential to shape not only the destinies of these nations but also global strategies for forest conservation, climate resilience, and sustainable livelihoods. The subsequent sections of this study will reveal the complex stories, difficulties, and achievements embedded within the community forest landscapes of these four South Asian countries, providing valuable insights to guide both regional policies and global initiatives.

2. Materials and methods

This study adopted a systematic review approach to examine the status of CBFM in South Asian countries, focusing on its benefits, challenges, and key lessons. Relevant literature was identified through comprehensive searches in Google Scholar and ResearchGate using keywords such as "community-based forest management," "community forestry," "community forestry south asia" and related terms for country-specific. The initial search yielded 1,600 records, which were then screened in accordance with the PRISMA (Preferred Reporting Items for Systematic reviews and Meta-Analyses) guidelines as shown in Figure 1. After removing 443 duplicates, 731 records were screened based on titles and abstracts, resulting in the exclusion of 511 studies that did not meet the review criteria. A total of 220 full-text articles were assessed for eligibility, of which 133 were excluded due to their focus on unrelated geographical contexts, lack of relevance to the research questions, or lack of peer review. Ultimately, 87 studies were included in the final analysis. The selected literature was analysed thematically to synthesise evidence on CBFM outcomes, governance practices, socio-economic benefits, ecological impacts, persistent challenges, and actionable lessons relevant for policymakers and practitioners in the region.

This study was done from September to December 2022, and the Global Research Institute and Training Center acted as a medium for collaboration among all the authors of this paper.

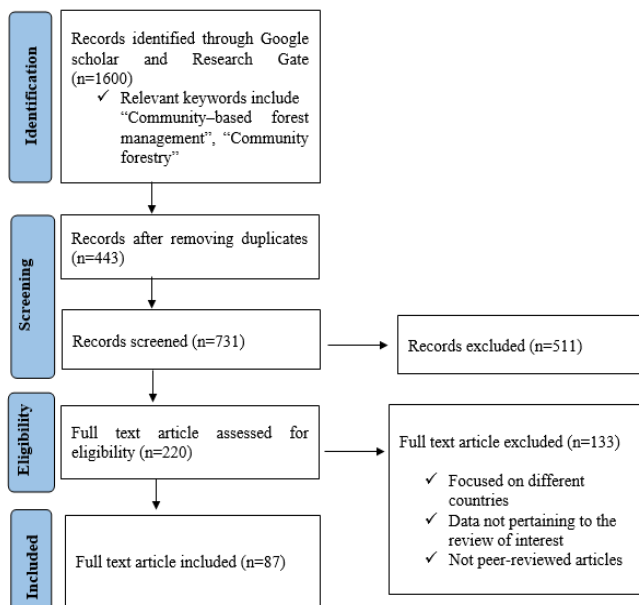


Figure 1: PRISMA flow diagram for the study of CBFM

3. Results and discussion

3.1 Status of Nepal

In Nepal and other developing countries, forests play a crucial role in rural livelihoods and environmental sustainability (Dev et al., 2003). Studies on community forests in Nepal have highlighted their positive impact including increased forest productivity (Adhikari et al., 2007; Dev & Adhikari, 2013), reduced deforestation and restoration of greenery (Paudel et al., 2015; Bluffstone, 2015; Oldekop et al., 2019; Jha et al., 2020; KC et al., 2021), forest cover expansion (DFRS, 2015; Niraula et al., 2013; Pokharel et al., 2018), improved soil fertility and water quality (Bhatta et al., 2014; Devkota et al., 2018; Nuberg et al., 2019), and biodiversity conservation (Paudyal et al., 2017).

CBFM provides forest products for daily use and contributes significantly to the rural economy and livelihoods through the production of fuelwood, timber, grass, fodder, leaf litter, and edible wild foods (Adhikari et al., 2007; Ghimire & Lamichhane, 2020). Community forests also offer employment opportunities, known as "green jobs," benefiting over a million poor people in Nepal (Adhikari et al., 2007), while generating revenue through the sale of various forest products (Bhatt et al., 2021; Kanel & Dahal, 2008). However, Bhatt et al. (2021) found that the annual revenue generation for timber and fuelwood selling is quite less (average revenue per year is USD 3.3 million). The reason for minimal economic outcomes may be due to the issues of forest governance, policy constraints on harvesting, and poor involvement of the private sector in marketing and harvesting of forest products, high

transaction costs (Gritten et al., 2015; Poudyal et al., 2013; Sharma et al., 2017). In addition, political interference make frequent and unpredictable changes in policies and plans in Nepal that ultimately discouraged forest government officials in timber management that, in fact, increased uncertainty and created ambiguity in the timber market (Paudel et al., 2014). Macqueen (2010) also reported that CFUGs in Nepal are deficient in knowledge/skill/ capacity, technical know-how, financial resources, materials and equipment for carrying out forest management operations. Similarly, studies worldwide suggest that forest-based enterprises in community forests can be successful in generating income and employment opportunities (Anderson et al., 2006; Del Gatto et al., 2018; Gilmour, 2016), the situation in Nepal's community forestry enterprises is challenging. Despite the significant economic potential of Nepal's forestry, including the trade of forest products and services, many community forestry enterprises in Nepal have struggled to prosper (Subedi et al., 2014). For example, the Chaubas community sawmill in Kavre district of Nepal, initially profitable, was unable to sustain its production in the long term (Kelly & Aryal, 2007). This was due to internal conflicts, mismanagement, and poor leadership within community forest user groups (CFUGs), political instability, lack of supportive government policies and regulations, corruption and embezzlement of financial resources (Shrestha et al., 2022). Community forestry has also contributed to the growth of social capital in both the rural and urban areas of Nepal (Acharya, 2004; Dev et al., 2003). A survey by MoFSC (2011) among 137 CFUGs found that community forests have had a positive impact on the participation of various groups, particularly the rural poor, women, and Dalits (lower-caste groups). Investments from the Community Forestry Fund have led to improved village-level infrastructures, such as paths, bridges, community buildings, schools, temples, drinking water supply etc indirectly enhancing social capital (Dev et al., 2003; Thani & Kandel, 2021). However, many questions have been raised by large number of researchers in social capital most particularly in good governance, institutional sustainability and issues related to equity aspects of forest management such as distribution of costs and benefits, access to decision-making (Adhikari & Di Falco, 2004; Giri & Ojha, 2010; Gurung et al., 2013; Nightingale, 2011; Parajuli et al., 2015) as it is still seen that most of the CFUGs are led by the elite and wealthier groups, and poor and marginalized groups are just excluded from the community forestry due to social structure and economic condition (Bhatt et al., 2021).

Studies have underscored the significant role of community forest management of Nepal in the conservation of plants and animals (KC, 2017; Luintel et al., 2018; Paudel & KC, 2014; Pokhrel, 2007; Shrestha et al., 2010). This conservation impact is attributed to the increasing density of the forest cover, increased plantation, reduced deforestation and degradation, reduced illegal hunting and

conservation of endangered species (KC, 2017; Paudel et al., 2021). However, there are contrasting perspectives on the impact of active management by Community Forest User Groups (CFUGs) on biodiversity conservation. For instance, the primary focus of CBFM in Nepal has been economic, with a strong emphasis on wood production (Poudyal et al., 2019). Consequently, many of the newly forested areas have evolved into monocultures, which are well-suited for wood production but do not serve as suitable wildlife habitats (Liu et al., 2018). These monoculture and economically focused practices within community-managed forests cannot provide sufficient food for animals, leading them to encroach into settlements in search of sustenance (Koirala et al., 2021). This encroachment, in turn, escalates the human-wildlife conflict, posing additional challenges to both conservation efforts and human livelihoods (Koirala et al., 2021). Furthermore, the active management approach, particularly when favoring economically valuable plant species, may unintentionally introduce homogeneity into forest structures. For instance, people often focus on economically valuable plant species and may remove unwanted species, inadvertently leading to lower species diversity and, in some cases, even contributing to the risk of extinction for these undesired plant species (Shrestha et al., 2010). Such practices may be driven by a stronger emphasis on short-term economic gains and a knowledge gap regarding the significance of biodiversity and ecosystem services from it (Shrestha et al., 2010). Additionally, Thani et al. (2019) reported various gaps in community forest management plans regarding biodiversity conservation that encompass various aspects, such as the redundancy of issues on biodiversity and ecosystem services within these plans, an undue focus on timber production, limited provisions for wildlife conservation, unfavorable public perceptions of wildlife conservation due to human-wildlife conflicts, the predominance of socio-economic factors in decision-making, the insufficient consideration of introduced, invasive, and alien species' impacts, the absence of strategies for adapting to and mitigating the effects of climate change on biodiversity and ecosystem services, and the diminishing biological corridors as a result of habitat fragmentation. While Nepal's community forestry program has successfully increased forest cover, there is a need to shift the focus towards biodiversity conservation. This includes diversifying forest habitats beyond monocultures, implementing wildlife management strategies, and addressing issues like human-wildlife conflict to ensure that reforested areas benefit both the economy and biodiversity.

Similarly, Community Forest in Nepal provide economic benefits through ecotourism (Birch et al., 2014; Chhetri et al., 2012; Paudel & Ojha, 2013; Wang, 2017). For instance, a study by Birch et al. (2014) demonstrated that recreation activities in Phulchoki Important Bird Area (IBA) generate direct net income of \$8,000 per year for five CFUGs (\$1,600 per CFUG) through visitor charges. Additionally, the wider economy benefits from recreation, with a value of \$998,000 per year through visitor expenditures on food, drinks, wood for campfires, and local transportation (Birch

et al., 2014). Another case study in Baghmara Community Forest showed that nature-based tourism generates an average annual profit of 10 million rupees (\$96,000) and a total income of 11 million rupees (\$107,691) per year for the user group (Wang, 2017). Some of the CFUGs in eastern Nepal generate substantial revenue from ecotourism activities (GoN, 2020). CF adjoining to national parks in Chitwan and Bardiya also generate income from forest hiking, elephant safari, and boating activities (MoFE, 2013). Various users directly or indirectly benefit from environmental and ecosystem services from CF, but due to lack of recognition as well as a mechanism for collecting payment for these services, they are unable to generate income. A key challenge for CF is to develop and institutionalize workable mechanisms of payment for environmental/ecosystem services which they are providing to downstream users (Birch et al., 2014).

3.2 Status of Bangladesh

Community forestry in Bangladesh has shown positive impacts in various areas, including employment generation, income generation, women empowerment, restoration of degraded lands, reduced conflict between forestry officials and local farmers, decreased encroachment on government lands, and lower rates of deforestation (Jashimuddin & Inoue, 2012; Nath et al., 2016; Zashimuddin, 2004). CBFM's experience has demonstrated that securing resources for the impoverished, expanding the availability of resources, and offering opportunities for income-generating activities have all contributed to a reduction in rural poverty (Farouque et al., 2017). According to Khisa et al. (2006), community managed forest are the major sources of bamboo and wood required for house construction, medicinal products, and other sustainable biomass needs of poor hill villagers. Community forestry projects have contributed to woodlot plantation, agroforestry plantation, strips plantations along roads, railways, and canal embankments, the establishment of nurseries and training centers as well as strengthening mutual relationships between the Forest department and local people (Jashimuddin & Inoue, 2012). For instance, a total of 30,666 ha of woodlot plantations, 87,78 ha of agroforestry plantations, and 48,420 km of strip plantations have been established by forest development under the community forest program in Bangladesh since the mid-1980s (Jashimuddin & Inoue, 2012). CBFM program has improved social capital for individuals who have been shut out of mainstream social and political processes and left powerless which has promoted social cohesiveness (Farouque et al., 2017). The perception of local people toward community forests has also changed in a positive way as they stimulate social equity, enhance community capacity, and mitigate crime (Boykoff, 2011). Similarly, in Chittagong hill tracts, village common forests (community initiated) have prepared goals for biodiversity conservation (Baten et al., 2010) maintaining rare plants and animals.

On the other hand, Forests in Bangladesh are deteriorating at an alarming rate in terms of both area and quality as a result of socioeconomic pressure, poverty,

overexploitation, and declining productivity and sustainability of forest resources (Jashimuddin & Inoue, 2012). As per the Global Forest Assessment 2015, Bangladesh annually lost 2600 ha of primary forest land i.e., 1.494 million ha in 1990 to 1.429 million ha in 2015 (IUCN and BFD, 2016). One of the major challenges is the lack of adequate institutional support and poor governance (Jashimuddin & Inoue, 2012; Mollick et al., 2018; Muhammed et al., 2008; Nath et al., 2016; Sarker et al., 2017) have reported inadequate institutional support and poor governance as significant hurdles. The absence of transparent management of project funds and bias in the selection of beneficiaries are also identified as challenges in community forestry (Jashimuddin & Inoue, 2012). For instance, two recent examples can be cited that reflect the poor and exclusionary forest governance in Bangladesh. The proposed Rampal coal-fired power station, located near the Sundarbans, has faced criticism due to insufficient public involvement in the decision-making process and a lack of consideration for public concerns. This reflects governance challenges in protecting a vital mangrove forest (Begum, 2022). Tribal communities in the Chittagong Hill Tracts, constituting 10% of Bangladesh's land, are excluded from forest resource ownership and management. This exclusion highlights governance issues that lead to disputes and hinder forest management (Begum, 2022). In essence, the absence of adequate institutional support and poor governance can hinder the effectiveness of community forestry projects, leading to a range of negative consequences, including financial mismanagement, local people exclusion and bias in beneficiary selection. Furthermore, the absence of alternative income generation activities poses a challenge to the sustainability of community forestry in the nation (Islam et al., 2012). Limited economic opportunities other than forestry activities can make it difficult for local communities to rely solely on forest resources for their livelihoods (Islam et al., 2013). The lack of diversification in income sources increases the vulnerability of communities and limits their ability to benefit fully from community forestry initiatives.

3.3 Status of Bhutan

To enhance community involvement in the management of national forests, the first community forest was initiated at Dozam, Drametse Geog, Mongar Dzongkhag, in 1993. Currently, 4% of the total government reserve forest i.e., 108879.489 hectares has been donated to 34169 rural households i.e. 25% of the total rural households in the country as Community Forests (CFs) (Tshering & Yoezer, 2023).

During the past decade, various projects such as the Third Forestry Development Project, the Wang Watershed Management Project, and since 2002, the Participatory Forest Management Project had done a trial by CF (Social Forestry Division, 2010). Agriculture in Bhutan is mostly subsistence-oriented and seasonal, so timber and fuel wood from CF can generate income and potentially improve local

people's livelihoods. For example, In Zhasela CF, the community forest user groups (CFUGs) was involved in constructing furniture from CF timber which was then traded to generate income for the community fund (Tshering, 2010). According to Meijboom et al. (2008), farmers of Bjoka village, earned almost 70% of their annual income by selling handicrafts prepared from canes and bamboo. Similarly, CFUGs also supported rehabilitated degraded forests, and protect wildlife, and water sources thus the environment was preserved. For example Shambayung CF, Dechen Kinga Choeling CF, and Ziptangzur CF have been established to conserve water sources (Dorji, 2011). Community Forest Programme contributed to decreasing poverty through the development of enterprises and by selling timber and non-timber forest products (Dorji, 2014). For instance, from the lemon grass distillation fees, Drametse CF has earned Nu. 53,841 (about US\$ 1,200) for the community (Tshering & Wangdi, 2006). According to Roder et al. (2003), leaf litter was picked for cattle bedding and fertilizing agricultural farms, fodder species for cattle feeding, mushrooms are collected as vegetables (Namgyel, 1996), and fuelwood for cooking and heating (Dick & Yonten, 1995). For fencing and scaffolding, and religious flag poles, timber products such as beams, planks, and poles are used (Moktan, 2010). Community funds were collected as membership fees, penalties, timber sales, and donations from community forests which can be provided as loans to the user group in low interest to cope with risks and improve their living conditions. (Pretzsch, 2022) and also to send their children to schools (Wangchuk, 2011). To build local governance capacity and to extend forest management responsibilities, community forest program played a vital role (Dorji, 2011). Similarly, to conserve watersheds and to supply water downstream, various payments for environmental service schemes were established at CF (Choden, 2020). Incidences of forest fires in fire-prone areas have been also reduced with the aid of CF (Temphel et al., 2005; Yangzom et al., 2008). Communities also characterized the maintenance of fresh air, carbon sequestration, and neutralization of soil erosion to the presence of live trees in the forest (Wangchuk, 2021). It is reported that after establishing CF, Forest conditions have been improved along with the increase in vegetation cover (Temphel et al., 2005).

However, community forestry in Bhutan also faces certain challenges. One of the challenges is the improper demarcation of community forest boundaries. This issue, as identified by Wangchuk et al. (2018), can lead to conflicts and disputes among stakeholders. Proper demarcation and clear delineation of boundaries are crucial to ensure effective management and utilization of community forests. Another challenge is the lack of coordination among stakeholders. Study by Wangchuk et al. (2018) have emphasized the importance of coordination among different stakeholders involved in community forestry initiatives. Effective coordination and collaboration are

essential to ensure smooth implementation and sustainable management of community forests. Furthermore, the lack of technical capacity among community forest user groups poses a challenge. Wangchuk et al. (2018) have identified the need to enhance the technical skills and knowledge of community forest user groups. Building their capacity in forest management practices, sustainable harvesting techniques, and business skills can contribute to the successful operation of community forestry initiatives. Most of the community forests still don't have proper infrastructure i.e., capital, labor, etc for the day-to-day functioning of their CFs (Tshering, 2023). For example, the labor shortage in Bumthang CFs has discouraged some members from not joining the membership (Wangchuk et al., 2018). Although CFUGs have been fruitful in grouping people and in establishing social capital at the group level, there is as yet a relatively low amount of financial capital for the members of the CF. For example, a shortage of financial capital has led to a lack of market access due to the absence of roads in the Shambayung CF. In this context, it is useful to identify approaches that can directly benefit poor members of the CFMG (Phuntsho et al., 2011).

3.4 Status of Sri Lanka

Ekanayake et al. (2022) observed that Community forestry in Sri Lanka improved community livelihoods along with significant advancements in natural, social, financial, and physical capital. This study also highlighted that the community forestry program significantly reduced the occurrence of forest fires due to a decrease in the number of tree stumps, felled trees, and lopped trees in forest areas as well as percentage of invasive species was reduced almost six-fold during the same period as SMBs (i.e. 2012 to 2018). Similarly, A study conducted by Fernando (2017) in Sri Lanka aimed to evaluate the economic benefits derived from the community forestry program. The findings revealed several advantages including increased engagement of youth and women in

income-generating activities, the construction of village access roads and agricultural roads, diversified incomes through non-timber forest products, improved biodiversity, and carbon stock storage (Fernando, 2017). Community-based Forest management in Sri Lanka has contributed to social stability in rural communities, efficient utilization of resources and production of essential commodities, sustainable environmental services, employment creation, livelihood development through community-based forest enterprises, biodiversity conservation, and forest restoration among other benefits (De Zoysa, 2017). Community-based Forest management also aimed to enhance the living standard of rural communities, optimize local resource use, and contribute to financial community-oriented transactions (Ekanayake et al., 2020). The community forestry program in Sri Lanka has been successful in providing various benefits, including increased forest cover, increased income, and livelihood support (Fernando, 2017). However, challenges related to resource availability, governance, and legal frameworks must be addressed to maximize the potential of community forests (Ekanayake et al., 2020). The

analytical studies done on the Sri Lanka Australia Natural Resource Management Project (SLANRMP 2004 to 2009) proved that 'Community Forestry' (CF) is the most cost-effective and successful approach for reforestation (Fernando, 2017). Community involvement is the foundation for the success in the reduction of deforestation and forest degradation. Participation in community forestry programs has been shown to reduce invasive species and forest fires (Ekanayake et al., 2020).

However, managing community forests in Sri Lanka poses certain challenges. These include changes in the availability of forest resources, deficiencies in marketing and communication, lack of secure tenure or access rights to forest resources, weak community governance, and discriminatory government laws about community forest activities (De Zoysa, 2017).

Table 1: Lessons Learnt

Country	Successes	Challenges	Recommendations
Nepal	<ul style="list-style-type: none"> ✓ Increased forest productivity, reduced deforestation, improved soil fertility, and biodiversity conservation ✓ Improved rural economy and livelihoods through the production of forest products and "green jobs" 	<ul style="list-style-type: none"> ✓ Forest governance issues, policy constraints, poor private sector involvement, and political interference ✓ Encroachment of wildlife into settlements ✓ Lack of mechanisms for collecting payments for ecosystem services 	<ul style="list-style-type: none"> ✓ Inclusive and equitable participation should be encouraged ✓ Stable policies and good governance should be maintained ✓ Focus on diversifying forest habitats, implementing wildlife management strategies, and addressing human-wildlife conflicts ✓ Develop and institutionalize workable

Bangladesh	<ul style="list-style-type: none"> ✓ Environmental and ecosystem services to downstream users ✓ Employment generation, women's empowerment, restoration of degraded lands, and conflict between forestry officials and local farmers have been reduced. ✓ Improved social capital and promoted social cohesiveness by including previously marginalized individuals. ✓ Stimulate social equity, enhance community capacity, and mitigate crime. 	<ul style="list-style-type: none"> ✓ Socioeconomic pressure, overexploitation, and declining productivity and sustainability of forest resources ✓ Inadequate institutional support and poor governance ✓ Ensuring transparency in the management of project funds and equitable selection of beneficiaries is crucial ✓ Lack of alternative income-generating activities 	<ul style="list-style-type: none"> mechanisms for payment for ecosystem services ✓ Invest in capacity-building programs ✓ Strengthen institutional support and ensure transparent and effective governance in forest management ✓ Explore opportunities for diversifying income sources for local communities to reduce their vulnerability ✓ Focus on environmental protection and the preservation of critical ecosystems, such as the Sundarbans mangrove forest
Bhutan	<ul style="list-style-type: none"> ✓ Improved local people's livelihoods through the sale of timber and non-timber forest products, handicrafts, and other enterprises. ✓ Environmental conservation by rehabilitating degraded forests, protecting wildlife, preserving water sources, and reducing forest fires. ✓ Building of Local Governance Capacity 	<ul style="list-style-type: none"> ✓ Improper demarcation of community forest boundaries ✓ Ineffective coordination among different stakeholders ✓ Lack of technical capacity among community forest user groups ✓ Lack of proper infrastructure and financial capital 	<ul style="list-style-type: none"> ✓ Focus on sustainable practices that enhance the health and resilience of its forests ✓ Invest in capacity-building programs to enhance the technical skills and knowledge, including forest management practices and sustainable harvesting techniques
Sri Lanka	<ul style="list-style-type: none"> ✓ Reduced the occurrence of forest fires, controlled invasive species, 	<ul style="list-style-type: none"> ✓ Ensuring secure tenure and access rights to forest resources for local communities is crucial. 	<ul style="list-style-type: none"> ✓ Engage local communities and stakeholders in decision-making processes and

and increased forest cover.	✓ Discriminatory government laws	strengthen community governance mechanisms.
✓ Social stability in rural communities and enhanced community participation in forest management		✓ Develop effective marketing and communication strategies
✓ The Sri Lanka Australia Natural Resource Management Project highlighted CF as the most cost-effective and successful approach for reforestation.		✓ Strengthen community governance mechanisms ✓ Invest in training and awareness programs to enhance the skills and knowledge of community forest user groups

4. Conclusion

The examination of community-based forest management in selected South Asian countries reveals a common thread of positive impacts on livelihoods, environmental sustainability, and social cohesion. Community forestry initiatives have proven to be effective in enhancing the economic well-being of local communities, reducing poverty, and providing income-generating opportunities. Moreover, these programs have played a pivotal role in environmental conservation, contributing to increased forest cover, biodiversity preservation, and a reduction in deforestation. Selected South Asian countries have successfully promoted social inclusion and empowerment, with a focus on engaging marginalised groups, women, and youth in forest management, fostering social stability. However, these achievements have not come without their set of challenges, including resource availability, governance, and legal frameworks. The lessons to be learned from this review emphasise the importance of active community engagement, income diversification, sustainable forest management, improved governance, cost-effective approaches, and advocacy for supportive policies. It draws attention to policymakers on how elite capture and political interference still exclude marginalised groups, suggesting the need for governance reforms and inclusive decision-making structures. By embracing these lessons, these South Asian nations can further harness the potential of community forestry to ensure the well-being of their people and the sustainable stewardship of their natural resources.

References

- Acharya, K. P. (2004). Does community forests management supports biodiversity conservation? Evidences from two community forests from the Journal of Sustainability and Environmental Management (JOSEM)
- mid hills of Nepal. *Journal of Forest and Livelihood*, 4(1), 44–54.
- Adhikari, B., Di Falco, S., & Lovett, J. C. (2004). Household characteristics and forest dependency: evidence from common property forest management in Nepal. *Ecological economics*, 48(2), 245-257.
- Adhikari, B., Williams, F., & Lovett, J. C. (2007). Local benefits from community forests in the middle hills of Nepal. *Forest Policy and Economics*, 9(5), 464–478.
<https://doi.org/10.1016/j.forpol.2005.11.002>
- Balooni, K., & Inoue, M. (2007). Decentralized forest management in south and Southeast Asia. *Journal of Forestry*, 105(8), 414 - 420.
- Balooni, K., & Inoue, M. (2009). Joint forest management in India: The management change process. *IIMB Management Review*, 21(1), 1–17.
- Baynes, J., Herbohn, J., Smith, C., Fisher, R., & Bray, D. (2015). Key factors which influence the success of community forestry in developing countries. *Global Environmental Change*, 35, 226–238.
<https://doi.org/10.1016/j.gloenvcha.2015.09.011>
- Begum, N. (2022). Participatory forest governance for sustainable forest management: opportunities and challenges in Bangladesh (Doctoral dissertation, Macquarie University).
- Bhatta, L. D., van Oort, B. E. H., Rucevska, I., & Baral, H. (2014). Payment for ecosystem services: possible instrument for managing ecosystem services in Nepal. *International Journal of Biodiversity Science, Ecosystem Services & Management*, 10(4), 289-299.
- Birch, J. C., Thapa, I., Balmford, A., Bradbury, R. B., Brown, C., Butchart, S. H. M., Gurung, H., Hughes, F. M. R., Mulligan, M., Pandeya, B., Peh, K. S.-H., Stattersfield, A. J., Walpole, M., & Thomas, D. H. L. (2014). What benefits do community forests provide, and to whom? A rapid assessment of ecosystem services from a Himalayan forest, Nepal. *Ecosystem Services*, 8,

- 118–127.
<https://doi.org/10.1016/j.ecoser.2014.03.005>
- Biswas, S. R., & Choudhury, J. K. (2007). Forests and forest management practices in Bangladesh: The question of sustainability. *International Forestry Review*, 9(2), 627–640.
<https://doi.org/10.1505/ifor.9.2.627>
- Bluffstone, R. A., Somanathan, E., Jha, P., Luintel, H., Bista, R., Paudel, N. S., & Adhikari, B. (2015). Does collective action sequester carbon? The case of the Nepal community forestry program. The case of the Nepal community forestry program (June 22, 2015). World Bank Policy Research Working Paper, 7327.
- Bowler, D. E., Buyung-Ali, L. M., Healey, J. R., Jones, J. P., Knight, T. M., & Pullin, A. S. (2012). Does community forest management provide global environmental benefits and improve local welfare? *Frontiers in Ecology and the Environment*, 10(1), 29–36. <https://doi.org/10.1890/110040>
- Buffum, B., Lawrence, A., & Tempel, K. J. (2010). Equity in community forests in Bhutan. *International Forestry Review*, 12(3), 187–199.
<https://doi.org/10.1505/ifor.12.3.187>
- Chhetri, B. B. K., Lund, J. F., & Nielsen, Ø. J. (2012). The public finance potential of community forestry in Nepal. *Ecological Economics*, 73, 113–121.
- Choden, K., Keenan, R. J., & Nitschke, C. R. (2020). An approach for assessing adaptive capacity to climate change in resource-dependent communities in the Nikachu watershed, Bhutan. *Ecological Indicators*, 114, 106293.
- Dahal, G. R., & Chapagain, A. (2012). Community forestry in Nepal: decentralized forest governance. In *Lessons from forest decentralization* (pp. 67–81). Routledge.
- De Zoysa, M. (2017). Community-based forest management in Sri Lanka: Approaching a green economy and environment. *Sri Lanka Forester*, 38, 01–23.
- De Zoysa, M., & Inoue, M. (2008). Forest governance and community based forest management in Sri Lanka: Past, present and future perspectives. *International Journal of Social Forestry*, 1(1), 27–49.
- Dev, O. P., & Adhikari, J. (2013). Community forestry in the Nepal hills: Practice and livelihood impacts. In *Forests people and power*. Routledge.
- Dev, O. P., Yadav, N. P., Springate-Baginski, O., & Soussan, J. (2003). Impacts of community forestry on livelihoods in the middle hills of Nepal. *Journal of Forest and Livelihood*, 3(1), 64–77.
- Devkota, B., Thwaites, R., & Race, D. (2017). Community forestry, rural livelihoods and poverty reduction in Nepal. In *Community Forestry in Nepal* (pp. 59–81). Routledge.
- Dorji, K. (2014). Benefits of Community Forestry program: A Case from Bhutan. *Community-based Forest Management in the SAARC region*, 16.
- Dorji, W. (2011). Opportunities and Constraints to Community Forests for Local Income Generation and Livelihood: A Case Study of Four Community Forests in Bumthang District, Bhutan.
- Ekanayake, E. M. B. P., Cirella, G. T., & Xie, Y. (2020). Impacts of community forestry on forest condition: Evidence from Sri Lanka's intermediate zone. *Plos one*, 15(9), e0239405.
- Ekanayake, E. M. B. P., Xie, Y., Ahmad, S., Geldard, R. P., & Nissanka, A. H. S. (2022). Community Forestry for livelihood Improvement: Evidence from the intermediate zone, Sri Lanka. *Journal of Sustainable Forestry*, 41(1), 1–17.
<https://doi.org/10.1080/10549811.2020.1794906>
- Farouque, M. G., Fuyuki, K., & Takashino, N. (2017). Attitudes of local people towards community-based forest management: a study of Sal Forest area in Bangladesh. *International Journal of Agricultural Extension and Rural Development*, 4(1), 263–273.
- Farouque, M. G., Fuyuki, K., & Takashino, N. (2017). Does Community-based Forestry Management Approach Improve the Livelihoods of Local People? A case of Sal-forest area in Bangladesh. *Advances in Social Sciences Research Journal*, 4(1).
- Fernando, D. (2017). Economic benefits of Sri Lanka Community Forestry Program (SLCFP). *Journal of Ecosystem & Echography*, 7(247).
<https://doi.org/10.4172/2157-7625.247>
- Gautam, A. P., Shivakoti, G. P., & Webb, E. L. (2004). A review of forest policies, institutions, and changes in the resource condition in Nepal. *International Forestry Review*, 6, 136–148.
- Ghimire, P., & Lamichhane, U. (2020). Community based forest management in Nepal: Current status, successes and challenges. *Grassroots Journal of Natural Resources*, 3(2), 16–29.
<https://doi.org/10.33002/nr2581.6853.03022>
- Ghimire, P., & Lamichhane, U. (2020). Community Based Forest Management in Nepal: Current Status, Successes and Challenges. *Grassroots Journal of Natural Resources*, 3(2), 16–29.
<https://doi.org/10.33002/nr2581.6853.03022>
- Gilmour, D. A. (2016). Forty years of community-based forestry: A review of its extent and effectiveness; food and agricultural organization of the United Nations (FAO): Rome, Italy, ISBN 978-92-5-109095-4.
- Gilmour, D., Malla, Y., & Nurse, M. (2004). Linkages between community forestry and poverty. Regional Community Forestry Center for Asia and the Pacific.

- Giri, K., & Ojha, H. R. (2010, July). Enhancing livelihoods from community forestry in Nepal: can technobureaucratic behaviour allow innovation systems to work. In 9th European IFSA Symposium (pp. 4-7).
- GoN. (2020). The fifteenth plan (2019/20-2023-24). https://npc.gov.np/images/category/15th_plan_English_Version.pdf Retrieved October 02, 2023. National Planning Commission, Government of Nepal.
- Gupta, J. (2014). International Cooperation: Agreements and Instruments. Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. Lead Authors: Brewer, T., Conte Grand, M., den Elzen, M., Finus, M., Gupta, J., Höhne, N., Lee, M.K., Michaelowa, A., Paterson, M., Ramakrishna, K., Wen, G., Wiener, J., & Winkler, H. Cambridge University Press, Cambridge, UK, and New York, USA. https://www.ipcc.ch/site/assets/uploads/2018/02/ipcc_wg3_ar5_chapter13.pdf
- Gurung, A., Bista, R., Karki, R., Shrestha, S., Uprety, D., & Oh, S. E. (2013). Community-based forest management and its role in improving forest conditions in Nepal. *Small-Scale Forestry*, 12(3), 377–388. <https://doi.org/10.1007/s11842-012-9217-z>
- Islam, K. K., Hoogstra, M., Ullah, M. O., & Sato, N. (2012). Economic contribution of participatory agroforestry program to poverty alleviation: a case from Sal forests, Bangladesh. *Journal of Forestry Research*, 23, 323-332.
- Islam, K. K., Rahman, G. M., Fujiwara, T., & Sato, N. (2013). People's participation in forest conservation and livelihoods improvement: experience from a forestry project in Bangladesh. *International Journal of Biodiversity Science, Ecosystem Services & Management*, 9(1), 30-43.
- Jashimuddin, M., & Inoue, M. (2012). Community forestry for sustainable forest management: Experiences from Bangladesh and policy recommendations. *FORMATH*, 11, 133–166. <https://doi.org/10.15684/formath.11.133>
- Jha, S., Kafle, A., Puri, G., & Huettmann, F. (2020). Forestry management in Nepal: An example and a review of growth and yield. Hindu Kush-Himalaya watersheds downhill: Landscape ecology and conservation. *Perspectives*, 213–225.
- Katila, P., de Jong, W., Galloway, G., Pokorny, B., & Pacheco, P. (2017). Building on synergies: Harnessing community and smallholder forestry for Sustainable Development Goals. IUFRO.
- KC, A. (2017). Community forestry management and its role in biodiversity conservation in Nepal. In *Global exposition of wildlife management*, 51. InTech doi: 10.5772/65926.
- KC, B., Race, D., Fisher, R., & Jackson, W. (2021). Changing rural livelihoods and forest use transition in the middle hills of Nepal. *Small-Scale Forestry*, 20(3), 479–501. <https://doi.org/10.1007/s11842-021-09477-6>
- Kelly, M., & Aryal, P. (2007). Managing the risks of community-based processing: Lessons from two community-based sawmills in Nepal. In A cut for the poor, the international conference on managing forests for poverty reduction: Capturing opportunities in forest harvesting and wood processing for the benefit of the poor (pp. 74–84). Regional Community Forestry Training Center for Asia and the Pacific Bangkok (RECOFTC): Bangkok. Thailand.
- Koirala, S., Garber, P. A., Somasundaram, D., Katuwal, H. B., Ren, B., Huang, C., & Li, M. (2021). Factors affecting the crop raiding behavior of wild rhesus macaques in Nepal: Implications for wildlife management. *Journal of Environmental Management*, 297, 113331. <https://doi.org/10.1016/j.jenvman.2021.113331>
- Liu, C. L. C., Kuchma, O., & Krutovsky, K. V. (2018). Mixed-species versus monocultures in plantation forestry: Development, benefits, ecosystem services and perspectives for the future. *Global Ecology and Conservation*, 15, e00419. <https://doi.org/10.1016/j.gecco.2018.e00419>
- Luintel, H., Bluffstone, R. A., & Scheller, R. M. (2018). The effects of the Nepal community forestry program on biodiversity conservation and carbon storage. *PLOS ONE*, 13(6), e0199526. <https://doi.org/10.1371/journal.pone.0199526>
- Maharjan, M. R., Dhakal, T. R., Thapa, S. K., Schreckenber, K., & Luttrell, C. (2009). Improving the benefits to the poor from community forestry in the Churia region of Nepal. *International Forestry Review*, 11(2), 254–267. <https://doi.org/10.1505/ifer.11.2.254>
- Maraseni, T. N., Neupane, P. R., Lopez-Casero, F., & Cadman, T. (2014). An assessment of the impact if REDD+ pilot project on community forests user groups and their community forests in Nepal. *Journal of Environmental Management*, 136, 37–46. <https://doi.org/10.1016/j.jenvman.2014.01.011>
- Maryudi, A., Devkota, R. R., Schusser, C., Yufanyi, C., Salla, M., Aurenhammer, H., Rotchanaphatharawit, R., & Krott, M. (2012). Back to basics: Considerations in evaluating the outcomes of community forestry. *Forest Policy and Economics*, 14(1), 1–5. <https://doi.org/10.1016/j.forpol.2011.07.017>
- MoFE. (2013). Persistence and change: Review of 30 years of community forestry in Nepal. Retrieved October 02, 2023. Multi-stakeholder Forestry Program/Soongsil University. Ministry of Forests and Environment.
- MoFSC. (1993). Forest act 1993. Ministry of Forests and Soil Conservation, Government of Nepal.
- Moktan, M. R. (2010). Impacts of recent policy changes on rural communities and species diversity in government-managed forests of Western Bhutan.

- Mountain Research and Development*, 30(4), 365-372.
- Mollick, A. S., Rahman, M. K., Khan, M. N. I., & Sadath, M. N. (2018). Evaluation of good governance in a participatory forestry program: A case study in Madhupur Sal forests of Bangladesh. *Forest Policy and Economics*, 95, 123-137.
- Moorman, M. C., Peterson, N., Moore, S. E., & Donoso, P. J. (2013). Stakeholder perspectives on prospects for co-management of an old-growth forest watershed near Valdivia, Chile. *Society and Natural Resources*, 26(9), 1022-1036. <https://doi.org/10.1080/08941920.2012.739676>
- Muhammed, N., Koike, M., & Haque, F. (2008). Forest policy and sustainable forest management in Bangladesh: An analysis from national and international perspectives. *New Forests*, 36(2), 201-216. <https://doi.org/10.1007/s11056-008-9093-8>
- Nath, T. K., Jashimuddin, M., & Inoue, M. (2016). *Community-based forest management (CBFM) in Bangladesh*, 22. Springer.
- Niraula, R. R., Gilani, H., Pokharel, B. K., & Qamer, F. M. (2013). Measuring impacts of community forestry program through repeat photography and satellite remote sensing in the Dolakha district of Nepal. *Journal of Environmental Management*, 126, 20-29. <https://doi.org/10.1016/j.jenvman.2013.04.006>
- Niraula, R. R., Gilani, H., Pokharel, B. K., & Qamer, F. M. (2013). Measuring impacts of community forestry program through repeat photography and satellite remote sensing in the Dolakha district of Nepal. *Journal of environmental management*, 126, 20-29.
- Nuberg, I. K., Shrestha, K. K., & Bartlett, A. G. (2019). Pathways to forest wealth in Nepal. *Australian Forestry*, 82(sup1), 106-120.
- Oldekop, J. A., Sims, K. R. E., Karna, B. K., Whittingham, M. J., & Agrawal, A. (2019). Reductions in deforestation and poverty from decentralized forest management in Nepal. *Nature Sustainability*, 2(5), 421-428. <https://doi.org/10.1038/s41893-019-0277-3>
- Oldekop, J. A., Sims, K. R., Karna, B. K., Whittingham, M. J., & Agrawal, A. (2019). Reductions in deforestation and poverty from decentralized forest management in Nepal. *Nature Sustainability*, 2(5), 421-428.
- Pandey, H. P., & Pokhrel, N. P. (2021). Formation trend analysis and gender inclusion in community forests of Nepal. *Trees, Forests and People*, 5, 100106. <https://doi.org/10.1016/j.tfp.2021.100106>
- Pathak, B. R., Yi, X., & Bohara, R. (2017). Community based forestry in Nepal: Status, issues and lessons learned. *International Journal of Sciences*, 6(3). <https://doi.org/10.18483/ijSci.1232>
- Paudel, G., Carr, J., & Munro, P. G. (2022). Community forestry in Nepal: A critical review. *International Forestry Review*, 24(1), 43-58. <https://doi.org/10.1505/146554822835224810>
- Paudel, N. S., Vedeld, P. O., & Khatri, D. B. (2015). Prospects and challenges of tenure and forest governance reform in the context of REDD+ initiatives in Nepal. *Forest Policy and Economics*, 52, 1-8. <https://doi.org/10.1016/j.forpol.2014.12.009>
- Phuntsho, S., Schmidt, K., Kuyakanon, R., & Tempfel, K. J. (Eds.). (2011). Community forestry in Bhutan: Putting people at the heart of poverty reduction. Ugyen Wangchuck Institute for Conservation and Environment.
- Pokharel, B. K., Branney, P., Nurse, M., & Malla, Y. B. (2007). Community forestry: Conserving forests, sustaining livelihoods and strengthening democracy. *Journal of Forest and Livelihood*, 6(2).
- Pokharel, B. K., Branney, P., Nurse, M., & Malla, Y. B. (2007). Community forestry: Conserving forests, sustaining livelihoods and strengthening democracy. *Journal of Forest and Livelihood*, 6(2), 8-19.
- Pokharel, R. K., Tiwari, K. R., & Thwaites, R. (2017). Community forestry in Nepal: Analysis of environmental outcomes. In *Community Forestry in Nepal* (pp. 37-58). Routledge.
- Pokhrel, G. K. (2007). Role of community forests in faunal diversity conservation: A case study of the community forests within Satbariya range post of Dang district, Nepal (Doctoral dissertation, faculty of environmental science).9: 111-117.
- Poudyal, B. H., Maraseni, T., & Cockfield, G. (2019). Scientific forest management practice in Nepal: Critical reflections from stakeholders' perspectives. *Forests*, 11(1), 27. <https://doi.org/10.3390/f11010027>
- Pretzsch, J. (2022). Roles of Collective Action and Traditional Institutions in Effective Management of Community Forests: A Study from north-western Bhutan (Doctoral dissertation, University of New England, Australia).
- Rahut, D. B., Ali, A., & Behera, B. (2015). Household participation and effects of community forest management on income and poverty levels: Empirical evidence from Bhutan. *Forest Policy and Economics*, 61, 20-29. <https://doi.org/10.1016/j.forpol.2015.06.006>
- Rotman Research Institute (RRI). (2016). Closing the gap: Strategies and scale needed to secure rights and save forests. Washington DC: Rights and resources initiative.
- Sarker, P. K., Rahman, M. D., & Giessen, L. (2017). Empowering state agencies through national and international community forestry policies in

- Bangladesh. *International Forestry Review*, 19(1), 79-101.
- Schreckenberg, K., & Luttrell, C. (2009). Participatory forest management: A route to poverty reduction? *International Forestry Review*, 11(2), 221–238. <https://doi.org/10.1505/ifor.11.2.221>
- Shrestha, K. K., Paudel, G., Ojha, H., Paudel, N. S., Nuberg, I., & Cedamon, E. (2022). Community entrepreneurship: Lessons from Nepal's Chaubas community forestry sawmill. *Forest Policy and Economics*, 141, 102779. <https://doi.org/10.1016/j.forpol.2022.102779>
- Shrestha, U. B., Shrestha, B. B., & Shrestha, S. (2010). Biodiversity conservation in community forests of Nepal: Rhetoric and reality. *International Journal of Biodiversity and Conservation*, 2(5), 98–104.
- Shyamsundar, P., & Ghate, R. (2014). Rights, rewards, and resources: Lessons from community forestry in South Asia. *Review of Environmental Economics and Policy*, 8(1), 80–102. <https://doi.org/10.1093/reep/ret022>
- Temphel, K. J., & Beukeboom, H. J. (2006). Community forestry contributes to the national and millennium development goals without compromising the forestry policy. A Series of Case Studies on Community-Based Forest and Natural Resources Management in Bhutan. Ministry of Agriculture. Thimphu.
- Thani, P. R., Kc, R., Sharma, B. K., Kandel, P., & Nepal, K. (2019). Integrating biodiversity conservation and ecosystem services into operational plan of community forest in Nepal: Status and gaps. *Banko Janakari*, 29(1), 3–11. <https://doi.org/10.3126/banko.v29i1.25149>
- Tshering, C. (2006). Community forestry in Bhutan: Experiences and the way forward. About the organisations, 73.
- Tshering, D., & Yoezer, D. (2023). Three decades of Community Forestry in Bhutan: An assessment report of the review of its extent and management effectiveness. <https://doi.org/10.13140/RG.2.2.13133.20968>
- Wangchuk, J., Choden, K., Sears, R. R., Baral, H., Yoezer, D., Tamang, K. T. D., ... & Dhendup, T. (2021). Community perception of ecosystem services from commercially managed forests in Bhutan. *Ecosystem services*, 50, 101335.
- Wangchuk, S., Phuntsho, S., & Wangdi, T. (2018). Management issues in Community Forests Management: a case from Bumthang, Bhutan. *Forests, Trees and Livelihoods*, 27(1), 54-60.
- Zashimuddin, M. (2004). Community forestry for poverty reduction in Bangladesh. Forests for poverty reduction: can community forestry make money, 81-94.



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