



Significance of Community-Based Forestry for Effective Forest Landscape Restoration

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Abstract

Following the declaration of the Decade on Ecosystem Restoration (2021–2030) by the United Nations, the Bonn Challenge 2011 and the New York Declaration 2014 which aims to restore 350 million hectares of deforested and degraded lands by 2030, Forest Landscape Restoration (FLR) has attracted global attention. FLR serves as a key strategy to bring communities together in identifying and implementing practices that balance ecological, social and economic benefits across landscapes. Studies have revealed that, despite strong commitment from national governments, the success of restoration has been limited due to multiple factors. Various studies have also highlighted the significant role of local communities in forest management, as well as the recognition of land and forest rights as vital elements in ensuring effective forest landscape restoration. However, the significance of community contribution mainly through community-based forest management (CBFM) and the need for the security of local communities' rights over forestland resources are so far largely ignored. This paper analyses the overall situation of forest landscape restoration, taking the Asia region as a reference case with quantitative data, and establishes the interrelationship between success and failure of restoration with the extent of involvement of local communities and devolution of rights. Finally, the paper suggests specific strategic directions to move forward to recognise the significance of the CBFM model in forest landscape restoration.

Keywords: Forest, restoration, sustainability, tenure security, communities

GENERAL CONTEXT OF FOREST LANDSCAPE RESTORATION

Forest Landscape Restoration (FLR) aims to regain ecological functionalities and enhance human wellbeing across deforested and degraded areas. At the global level, despite immense promises, the progress on FLR so far is too little. Data indicate that the world is losing 10 million hectares (ha) of forests each year and deforested and degraded lands comprise more than 10 billion ha at present (Tengberg *et al.* 2020; UNEP-WCMC, IUCN and NGS 2018). This shows that the scale of

damage, as well as the scope for restoration initiatives, is extremely high. Therefore, FLR has become one of the global priorities to regain biodiversity and enhance human wellbeing. One of the milestones for FLR initiative is the Bonn Challenge 2011, where more than 74 countries expressed their commitment to restore 210 million ha by 2020. However, the progress remained scanty in comparison to the commitment (Dayne 2017). Similarly, Aichi Biodiversity committed to restoring 15 per cent of degraded ecosystems by 2020, whereas the New York Declaration and Sustainable Development Goals (SDGs) aim to restore

a total of 350 million ha of forestland by 2030. Target 15.3 of the SDGs aims to achieve land degradation neutrality by 2030 (FAO 2022). For all these to happen in action with priority, the United Nations has declared 2021–2030 as a decade of ecosystem restoration and has been attracting attention of global communities towards urgency of restoration.

SIGNIFICANCE OF COMMUNITY-BASED FORESTRY IN RESTORATION INITIATIVES

For the last thirty or forty years, many developing countries have been involving local communities in the protection and management of forests and forestlands. Community-based forestry models, it is believed, will address social, economic and conservation dimensions in a range of activities such as devolution of forest management role from the state to local communities, smallholder forestry programme, community–private partnership, small-scale forest-based enterprises and indigenous people (IP)-managed customary forests (Gilmour 2016). Some of the key models of community involvement include community-based forest management through community forestry, leasehold forestry, collaborative forestry, joint forest management, social forestry, participatory forestry and so on. These models have been proven as effective tools to restore deforested and degraded forestland areas and support livelihoods, as presented in Figure 1. Countries like China, India, Nepal, the Philippines and Vietnam are some of the leading countries in Asia where community-based forest management is a predominant model in practice (details with data and figure are presented in the following section). The result so far on the restoration of deforested

and degraded land remains encouraging across these countries. Based on the country cases and the contribution of community-based forestry in restoration initiatives, it would be justifiable to claim that the approach of involving local communities in restoration initiatives is more effective and sustainable (Ullah and Bavorova 2024). There are multiple reasons behind the adoption of the community-based forest management model for restoration. Some of them are elaborated as below.

- Community-based forestry models encourage direct participation of local communities in forest and forestland management. This provides an environment for the local communities to take restoration as their own initiatives, thus helping to ensure sustainability.
- Community-based forestry models encourage the adoption of improved governance and tenure practices, which are fundamental elements for forest landscape restoration and management (RECOFTC 2018).
- Community-based forestry models not only help in decreasing pressures on the forest but also lead to active involvement of local communities in restoration activities at the landscape level and contribute towards local livelihood needs.
- Community-based forestry model strengthens the legitimate rights of local communities and indigenous peoples over land and forest resources of those who are directly connected with the protection and management of forests and forestlands. Forests and forestlands are the basis of culture, life, identity and customs of many indigenous peoples and local communities.



- Degradation and deforestation also have direct effects on the livelihoods of local people, mostly users of community-based forestry. Hence, local communities and indigenous peoples offer their participation in the implementation of FLR activities so as to make sure that their livelihood opportunities are not negatively affected due to deforestation and degradation.
- Local communities involved in community-based forestry know the forest landscape better and will be able to manage the restoration initiative more effectively than any outsiders.

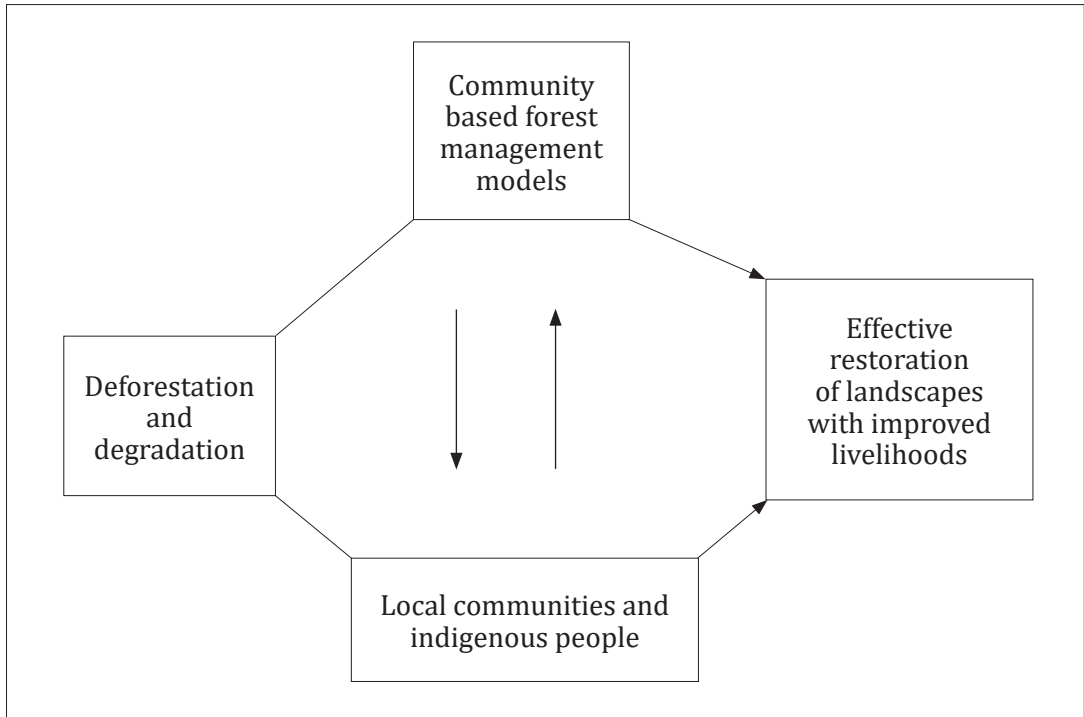


Figure 1: Conceptual basis for analysing relationship between CBFM and Forest Landscape Restoration

Considering the significance of local communities in FLR, the prevailing community-based forestry models, with active participation of local communities and indigenous peoples, have been largely successful in achieving effective restoration. However, in practice, the contribution of local communities in FLR has not been adequately accounted for so far.

SITUATION OF COMMUNITY-BASED FORESTRY AND RESTORATION IN ASIA

Despite commitments and pledges at the global and national levels, the achievement of restoration targets is meagre (Reed *et al.* 2020; Dayne 2017). Instead, in many countries in Asia, the forest areas have continually

been declining (FAO 2020). The South and Southeast Asia is the third highest region in 2020, with 31 million ha of annual forest loss, which is highly significant in terms of scale (FAO 2022). More importantly, the data from FRA 2020 provides clear trends of forest area loss or gain by countries from 1990 to 2020. For example, China has made significant progress in restoration, where the application of the collective forestry model is one of the major interventions at the community level. In the collective forestry model, there is wider involvement of local communities with strong devolved rights to them (Tables 1 and 2). However, the situation of Cambodia is relatively different, where

the Cambodian government was unable to restore forestland, resulting in a loss of 2.68 per cent of forest area per year (FAO 2020).

Similarly, countries like Indonesia and Myanmar are far behind in achieving their FLR targets, and they do not appreciate the role of local communities and indigenous peoples in restoring forestlands (Table 2). Hence, they had a negative figure on the net annual change in forest areas (Table 1). Whereas in Nepal and India, the progress in restoration is positive (Table 1), where these countries have involved local communities and indigenous peoples and appreciate their role in the restoration process (Table 2).

Table 1: Trend of forest areas net annual change

Country	Forest area (in mha)				Net annual change					
	1990	2000	2010	2020	1990–2000		2000–2010		2010–2020	
					1000 ha/y	%	1000 ha/y	%	1000 ha/y	%
Bangladesh	1.97	1.92	1.88				-3.2	-0.17	-0.5	0.03
Bhutan	2.55	2.60	2.70	2.72	9.9	0.39	9.9	0.37	2.0	0.07
Cambodia	11.0	10.78	10.58	8.06	-22.40	-0.21	-19.2	-0.18	-252.10	-2.68
China	157.14	177.00	200.61	219.97	1986.00	1.2	2361.00	1.26	1936.80	0.93
India	63.93	67.59	69.49	72.16	365.30	0.56	190.50	0.28	266.40	0.38
Indonesia	118.54	101.28	99.65	92.13	-1726.50	-1.56	-162.10	-0.16	-752.6	-0.78
Myanmar	39.21	34.86	31.44	28.54	-435.00	-1.17	-342.7	-1.03	-289.70	-0.96
Nepal	5.67	5.78	5.96	5.96	10.08	0.19	18.1	0.31		
Philippines	7.77	7.30	6.84	7.18	-47.00	-0.62	-47.00	-0.66	34.90	0.50
Sri Lanka	2.35	2.16	2.10	2.11	-18.4	-0.81	-6.30	-0.29	0.90	0.04
Timor- Leste	0.96	0.94	0.93	0.92	-1.4	-0.15	-1.4	-0.15	-1.4	-0.15
Viet Nam	9.37	11.78	13.38	14.63	240.80	2.31	160.40	1.28	125.5	0.90

Source: FAO 2020

**Table 2: Forest management regimes and supporting regulatory framework**

Country	Predominant management regime	Percentage of total forest area	Regulatory framework	Year of enactment
Bangladesh	Agroforestry-based community forestry Government management of natural resources, including forests	-	Forest Act	1972
			Environmental Conservation Act	1995
Bhutan	Community forestry	50	National Forest Policy Land Act	2011 2007
Cambodia	Private concessionaires, government management	15	Forest Law Prakas-CF Guideline	2002 2006
China	Collectively-owned forests Villagers hold collective or individual use rights to economic forests Administrative villages or households are paid to protect ecological forests	60	Decision on Accelerating the Development of Forestry	2003
India	Joint Forest Management Forest Rights Act 2006	20	Indian Forest Policy	1952
			Forest Right Act	2006
Indonesia	Village forest Customary Adat forest	Negligible	Forestry Act	1999
			Regulation	2021
			Strategic Priority	2010
			Constitutional Court Decision	2012/13
Myanmar	Government management	None	Forest Act	1992
			Forest Policy Act	1995
			National Forest Master Plan	2001
			CF Instruction	1995
Nepal	Community, collaborative, pro-poor leasehold forests	33	Forest Act	2019
			Forest and Regulation	2022
			Forest Policy	2019
Philippines	Community-based forest management agreement	50	IPRA Law	1997
			Executive Order	1993
Timor-Leste	Customary (Tara Bandu) and government management	-	Community Forestry Strategy	2020
			National Agro-forestry Strategy	2022
Vietnam	Collective forest management entails allocation of forest and forestland to households, individuals and communities	60	Forestry Development Strategy	2007
			Land Law	2013
			Forestry Law	2017

Source: Author's compilation 2025

RELATIONSHIP BETWEEN COMMUNITY-BASED FORESTRY AND FLR

As presented above, in Asia, China, the Philippines and Vietnam have made significant progress in FLR initiatives, where they adopted community-based forest management models, thereby involving local communities and indigenous peoples (Tables 1 and 2). But Bangladesh, Cambodia and Timor-Leste are lagging in net annual change of forest areas (Table 1), as these countries have limited or no involvement of local communities in government restoration initiatives. Restoration is also intertwined with the level of security and clarity of forestland tenure on behalf of local communities and indigenous peoples (Cronkleton *et al.* 2017; Dahal *et al.* 2011; Larson *et al.* 2010). The studies undertaken by the Rights and Resources Initiative revealed that, at the global level, there is a gradual shift in forestland tenure categories from public ownership and management to a more community and indigenous peoples-led management and ownership over forestland (Ginsburg and Keene 2020). Such shift in land tenure categories indicates that more rights are vested to the local communities and indigenous peoples to protect and manage forests and forestland resources, considering that local people can better protect and restore their forests and land areas (Gilmour 2016).

In Asia, as presented in Tables 1 and 2, the community-based forest management model is one of the key instruments behind successful restoration. In situations where communities have been vested with full rights to make decisions about protection and management of forests and forestlands, devolution of rights can contribute towards good governance and secured tenure.

Therefore, community-based forestry is a platform to achieve restoration targets more effectively and efficiently. Community-based forestry not only helps in decreasing pressure on forest but also provides opportunities for active involvement of indigenous peoples and local communities in restoration initiatives. In order to empower local communities, it is vital to have enabling legal and regulatory frameworks and secure the rights of the legitimate holders. The secured rights are fundamental to strengthening local livelihoods, helping preserve local customs and identity of indigenous peoples, forest dweller and local communities (FAO 2017).

Considering the above facts and figures, as presented in Tables 1 and 2, it is clear that FLR could be more effective through the active involvement of local communities and indigenous peoples. The country cases also substantiated that restoration of degraded and deforested areas has actively taken place in situations where the national governments have devolved rights and responsibilities to local communities to manage, protect and use forests and forestland. For example, in China, the total forest area in 2000 was 177 mha, whereas in 2020 it increased to 219 mha. This growth can be linked to the collective forestry model – a form of community-based forestry – under which villagers are granted collective or individual use rights over economic forests. Similarly, administrative villages or households are paid to protect ecological forests. In terms of tenure security, local people will have seventy-year contracts for the first time, which is renewable for another 70 years. The duration of tenure granted to the local community is adequate to get economic returns from forest management.

Similarly, in Vietnam, the increase in forest area from 11.78 mha in 2000 to 14.63



mha in 2020 is primarily attributed to the government policy of involving and authorising local people in restoration of forest areas with adequate rights to manage and use forests and forestlands either as collective or household forestland. This approach of community-based forest management relies on the allocation of forest and forestland to households, individuals and communities who can then practise forest management and other agroforestry-related livelihoods activities to harness economic benefits.

More specifically, the community forestry (CF) model in Nepal is considered as an effective model where local communities have contributed immensely to restoring degraded and deforested mid hills for more than 40 years. Now, forest areas have increased, along with increased canopy cover, with overall greenery within the four decades of CF intervention. Besides CF, other community-based forest management model such as collaborative forestry, leasehold forestry and buffer zone community forestry has contributed to the restoration of forestlands in the hills and terai lowland.

On the other hand, countries like Myanmar and Cambodia have significantly lost their forest areas where the role of local communities and indigenous peoples is largely ignored and forest management is predominantly under government administration. For example, in Myanmar, in 2000, the total national forest area was 34.86 mha, but, in 2020, the total forest area declined to 28.54 mha (FRA 2020). The rate of forest area decline within 20 years in Myanmar is one of the highest rates in Asia. Likewise, in Cambodia, the forest area declined from 10.78 mha in 2000 to 8.06 mha in 2020. Another example with large-scale forest area decline is Indonesia,

where, in 2000, the total forest was 101.28 mha, whereas, in 2020, it was 92.13 mha. Interestingly, the forest policies and acts in these countries (Myanmar, Cambodia, Indonesia) have hardly appreciated the critical role of local communities and indigenous peoples in restoring deforested and degraded land areas (RECOFTC 2020; RECOFTC 2018; Sikor *et al.* 2013). The government controls and administers most parts of the country's forestlands. The concept of community involvement in restoration is a recent initiative, but within small areas only for piloting purposes.

CONCLUSION AND RECOMMENDATIONS

The analysis and interpretation of available credible data, study reports and publications on FLR showed that a strong relationship exists between the successful restoration of degraded and deforested land areas and the adoption of community-based forestry models. As of now, such a relation has not been exclusively established through credible research, studies and publications. Therefore, this paper has presented strong arguments with country cases showing existence of a correlation between effective FLR and local people's involvement through community-based forest management. The argument is substantiated with credible quantitative data from the selected countries in Asia and looks at the overall restoration outcomes on the ground. The study also identified some of the important dimensions to make sure that the community-based forestry model can contribute significantly to achieving successful forest landscape restoration. These dimensions must be considered well while implementing the FLR specifically within community-based forest areas. The recommended strategies are as below.

- Community-based forestry should promote sustainable investment in FLR so that the local communities can benefit economically from the restoration initiatives.
- Strengthen further efforts to increase security and clarity on forestland tenure, which is a prerequisite for successful restoration of deforested and degraded landscapes.
- Facilitate development of an enabling policy and regulatory framework as they are instrumental for effective implementation of community-based forest management vis-à-vis forest landscape restoration.
- Fulfill capacity gaps of key stakeholders such as government offices and local communities and indigenous peoples to attract sustainable investment and to adopt landscape approach for restoration.

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