Significance of Community Based Forestry for Effective Forest Landscape Restoration

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Abstract

Forest Landscape Restoration (FLR) has attracted global attention with the recent declaration of the Decade on Ecosystem Restoration (2021-2030) by the United Nations (UN), the Bonn Challenge 2011, and New York Declaration 2014 with the aim to bring 350 million hectares of deforested and degraded land into restoration by 2030. FLR serves as a key strategy to bring communities together in identifying and implementing practices that balance ecological, social, and economic benefits across landscapes. The findings from various studies revealed that there are multiple factors behind limited success of restoration despite strong commitment from the national governments. Various studies also highlighted the significant role of local communities in forest management, and recognition of land and forest rights on their behalf 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 forest land resources are so far largely ignored. This paper analyses the overall situation of forest landscape restoration taking the context of Asia region as reference cases with quantitative data and establishes the interrelation 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 CBFM model in forest landscape restoration.

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

GENERAL CONTEXT OF FOREST LANDSCAPE RESTORATION (FLR)

FLR aims to regain ecological functionalities and enhance human well-being across deforested and degraded areas. At the global level, despite immense promises, the progress on FLR so far is too little. Data indicates that the world is losing 10 million hectares of forests each year and have more than 10 billion hectares of deforested and degraded land at present (Tengberg *et al.* 2020; UNEP-WCMC, IUCN and NGS 2018). This shows that the scale of damage and the scope for restoration initiatives is extremely high. Therefore, FLR become one of the global priorities to regain biodiversity and enhance human well-being. One of the milestones for FLR initiative is Bonn Challenge-2011, where more than 74 countries made commitment to restore 210 million hectares within 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 Goal (SDG) have aimed to achieve a total of 350 million

hectares of forestland restoration 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 to 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

Since the last 30-40 years, many developing countries have been involving local communities in the protection and management of forests and forestlands. Community based forestry is believed as a model to address social, economic and conservation dimensions in a range of activities such as devolution of forest management role from the state to local communities, small holder forestry programme, community private partnership, small scale forest based enterprises and indigenous people (IPs) managed customary forest (Gilmour 2016). Some of the key models of community involvements include community based forest management through community forestry, leasehold forestry, collaborative forestry, joint forest management, social forestry, participatory forestry and so on. These models are mostly adopted as an effective tool to restore deforested and degraded forest land areas and support livelihoods as presented in Figure 1. Countries like China, India, Viet Nam, Philippines, and Nepal are some of the leading countries in Asia where community-based forest management is a predominant model in practice (the details with data and figure is presented in the following section). The result so far across these countries on the restoration of deforested and degraded land remains encouraging. Based on country cases and the level of contribution of community based forestry in restoration initiatives, it is sensible to claim that the approach to involve local community in restoration is more effective and sustainable (Ullah and Bavorova 2024). The reasons behind the adoption of the community based forest management model for restoration are multiple. Some of them are elaborated as below.

- Community based forestry models encourage direct participation of local communities in forests and forestland management. This provides an environment to take restoration as their own initiatives by the local communities, hence helps to ensure sustainability.
- Community based forestry model encourages the adoption of improved governance and tenure practices, which are fundamental elements for forest landscape restoration and management (RECOFTC 2018).
- Community based forestry models help in decreasing pressures on the forest, but also lead to active involvement of the 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 IPs 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 IPs and local communities.
- Degradation and deforestation also have a direct effect on the livelihoods of local people, mostly on the users of community based forestry. Hence, local communities and IPs 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 other.

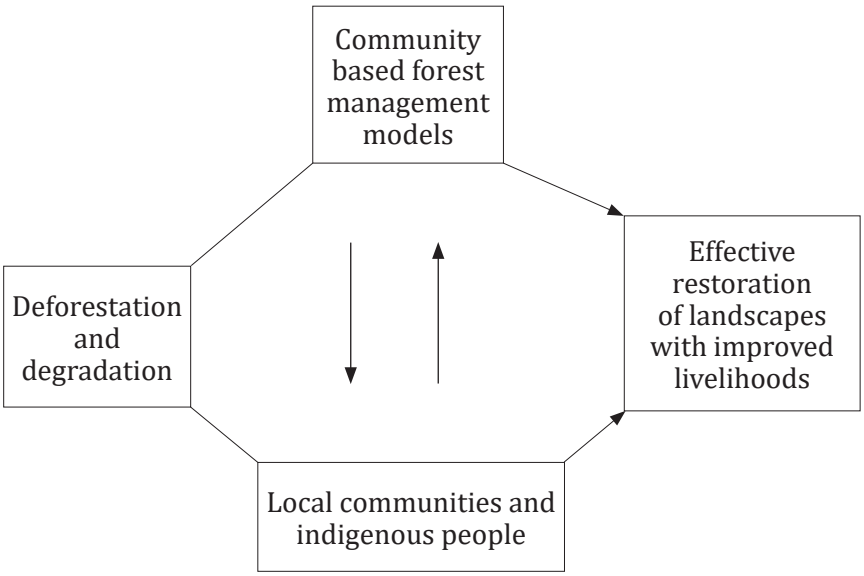

Figure 1: Conceptual basis to analyse relationship between CBFM and FLR

Considering the significance of local communities in FLR the prevailing community based forestry models with active participation of local communities and IPs remain 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 ASIAN COUNTRIES

It is widely accepted that despite commitments and pledges at the global and national level, with restoration targets, the achievement so far is meagre (Reed *et al.* 2020; Dayne 2017). Instead, in many countries in Asia, the forest area has continually been declining (FAO 2020). The South and Southeast Asia by 2020 is the third highest region, having 31 million hectares 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 the countries from 1990 to 2020. For example, China has made significant progress in restoration, where the application of the collective forest 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 (Table 1 and Table 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 areas per year (FAO 2020).

Similarly, countries like Indonesia and Myanmar are far behind in achieving the FLR target, and they do not appreciate the role of local communities and IPs in restoring the 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 of restoration is positive (table 1), where these countries have involved local communities and IPs and appreciate their role in the restoration process (Table 2).

Table 1: Trend of forest areas net annual change

Country	Forest area 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
Veit 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 the total forest area	Regulatory framework	Year of enactment
Bangladesh	Agroforestry based community forestry Government management of natural resources including forest	-	Forest Act Environmental Conservation Act	1972 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 Forest Right Act	1952 2006
Indonesia	Village Forest Customary Adat Forest	Negligible	Forestry Act Regulation Strategic Priority Constitutional Court Decision	1999 2021 2010 2012/13
Myanmar	Government management	None	Forest Act Forest Policy Act National Forest Master Plan CF Instruction	1992 1995 2001 1995
Nepal	Community, collaborative, pro poor leasehold forest	33	Forest Act Forest and Regulation Forest Policy	2019 2022 2019
Philippines	Community Based Forest Management Agreement	50	IPRA Law Executive Order	1997 1993
Timor-Leste	Customary (Tara Bandu) and Government Management	-	Community Forestry Strategy National Agro-forestry Strategy	2020 2022
Viet Nam	Collective Forest Management entails allocation of forest and forest land to households, individuals and communities.	60	Forestry Development Strategy Land Law Forestry Law	2007 2013 2017

Source: author's compilation 2025

RELATIONSHIP BETWEEN COMMUNITY BASED FORESTRY AND FLR

As presented above, the countries in Asia such as Viet Nam, China and the Philippines have made significant progress in FLR initiatives, where they adopted community based forest management models thereby involving local communities and IPs (Table 1 and Table 2). But the countries like Timor-Leste, Cambodia, and Bangladesh are with different situation in terms of net annual change of forest areas (Table 1) as these countries have limited or no involvement of local communities in the Government's restoration initiatives. Restoration is also intertwined with the level of security and clarity of forestland tenure on behalf of local communities and IPs (Cronkleton *et al.* 2017; Dahal *et al.* 2011; Larson *et al.* 2010). The studies undertaken by Rights and Resources Initiative (RRI) also revealed that at the global level, there is a gradual shift in forest land tenure categories from public ownership and management to a more community and IP's 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 IPs 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 the Asia region as presented in Table 1 and 2 it shows that community based forest management model is one of the key instruments behind successful restoration. In the situation where communities have provided with full rights to make decisions about protection and management of forests and forestlands. Such devolution of rights can contributes toward good governance, and secured tenure. Therefore, community based forestry is a platform to achieve restoration target more effectively and efficiently. Community based forestry helps in decreasing pressure on forest, but also provide opportunities for active involvement of IP and LCs in restoration initiatives. In order to empower local communities, it is vital to have enabling legal and regulatory framework and secure right by the legitimate holders. The secured rights is fundamental to strengthen local livelihoods, help preserve local customs and identity of IPs, forest dweller and local communities (FAO 2017).

Considering the above facts and figures as presented in Table 1 and Table 2 it looks clear that FLR could be more effective through the active involvement of local communities and IPs. 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 of forests and forestland. For example, in China, the total forest area in 2000 was 177 mha, whereas in 2020 it increased to 219 mha. If we interrelate the increased forest area with the collective forestry model in China (a model within community based forestry) where villagers hold collective or individual use rights to economic forests. Administrative villages or households are paid to protect ecological forests. In terms of tenure security, local people will have 70-year contract 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 the forest management.

Similarly, in Viet Nam, the increased forest area from 11.78 mha in 2000 to 14.63 mha in 2020 is primarily attributed to the government policy to involve and authorise local people in restoration of forest areas with adequate rights to manage and use forests and forestlands either as collective or household forestland. The approach of community based forest management in Viet Nam relies on the allocation of forest and forest land 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 (a type of community based forestry) is considered as an effective model where local communities have contributed immensely to restoring degraded and deforested mid hills for the last more than 40 years. Now, the forest areas have increased, along with increased canopy cover, with overall greenery within four decades of CF intervention. Besides CF, other community based forest management model such as collaborate forestry, leasehold forestry, buffer zone community forestry have also contributed in the restoration of forestland in hills and in terai low land.

On the other hand, countries like Myanmar and Cambodia have significantly lost their forest areas where the role of local communities and IPs is largely ignored and forest management is predominantly under the 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 areas declined from 10.78 mha in 2000 to 8.06 mha in 2020. Another example with large scale of forest area decline is in 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 IPs in restoring deforested and degraded land areas (RECOFTC 2020; RECOFTC 2018; Sikor et al, 2011). The Government control and administer most part of the country's forestlands. The concept of community involvement in restoration is a recent initiative, but within a 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 there exists a strong relationship 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 that there is 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 achieve 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 on FLR so that the local communities can benefits economically from the restoration initiatives.
- Strengthen further efforts to increase security and clarity on forest land tenure, which is a prerequisite for the successful restoration of deforested and degraded landscapes.
- Facilitate to develop enabling policy and regulatory framework as they are instrumental for effective implementation of community based forest management vis-à-vis forest landscape restoration.
- Fulfil capacity gaps of key stakeholders such as government offices and local

communities and IPs so as to attract sustainable investment and to adopt landscape approach for restoration.

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