

A photograph of a person standing in a shallow stream within a dense forest. Sunlight filters through the thick canopy, creating a bright, hazy atmosphere. The person is wearing a plaid shirt and shorts. The water is calm, reflecting the surrounding greenery and the person. Large rocks are visible on the banks of the stream.

PEOPLE'S FORESTS

**IS COMMUNITY GOVERNANCE THE
FUTURE OF INDIA'S JUNGLES?**

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PEOPLE'S FORESTS

**IS COMMUNITY GOVERNANCE THE
FUTURE OF INDIA'S JUNGLES?**



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Foreword

Given its vast territory and diverse population, India's founding fathers envisioned democratic decentralization as the ideal form of governance for the country. But the shift from British-era centralization to a new paradigm of local governance has been slow.

Centre for Science and Environment (CSE) has been an advocate of democratic decentralization from its very inception. Way back in 1989, the Centre published a report titled *Towards green villages—a strategy for environmentally sound and participatory rural development in India*. The report was based on the experiences of local communities in managing their natural resources. CSE had argued that there was a need for devolution of powers to local communities for the management of natural resources.

In 2006, The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act became the first legislation in independent India to vest the rights and powers to manage forest resources in local communities. Also known as the Forest Rights Act (FRA), the Act provides for recognition of forest lands as community forest resources (CFR). CFR areas are meant to be a separate category of forests to be governed and managed by communities. As of 2016, a little over 1.1 million hectares (ha) of forestland had been brought under CFR management. Potentially, another 30 million ha of forestland in India can be handed over to communities for management.

Since the enactment of FRA, CSE has been documenting stories of success, conflicts, and challenges in the implementation of the law. Though FRA had defined bamboo as a minor forest produce over which communities had rights of ownership, use and disposal, forest officials stuck to the definition of bamboo as a tree under the Indian Forest Act (IFA) of 1927, and refused community control over it. CSE's extensive advocacy on treating bamboo as a minor forest produce resulted in a letter from the Union Minister of Environment and Forest in 2011 directing state forest departments to respect community rights over it. Since then, the forest-dwelling communities in several CFR areas have been better able to earn livelihoods through bamboo without fear of an official crackdown. Now, with the removal of bamboo from the category of 'trees' in IFA, another page has been turned in the history of forest governance.

Ten years after FRA came into existence, CSE wanted to understand and assess the experiences of communities in managing and governing their CFR areas. We travelled to four states and spoke to the forest-dependent communities about their objectives, aspirations and challenges in governing their CFR areas. We learned that CFRs have created new employment and economic opportunities for communities—experiences which can be repeated in other areas as well to help alleviate poverty and reverse the trend of migration from forest areas. We also came across a number of measures adopted by communities to restore the ecological value of their forests.

Nonetheless, there are a number of impediments faced by communities in managing their CFR areas and benefitting from them. It is crucial that we create support systems for communities to achieve food and livelihood security together with forest conservation. The government will have to play a more enabling role in the process. We also need to build safeguards to ensure that ecological sustainability is not compromised and that there is social equity in CFR management.

I hope the insights on CFR management provided in the report serve as an information tool for policy makers, NGOs, and forest-dependent communities and lead to positive action on the ground that is good for both communities and forests.

Chandra Bhushan

1. Overview

The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006, also known as the Forest Rights Act (FRA), was hailed as a landmark legislation towards decentralizing and democratizing forest governance in India. The Act recognizes forest dwellers as 'integral to the very survival and sustainability of the forest ecosystem' and seeks to 'address the long standing insecurity of tenurial and access rights' of forest-dwelling communities. FRA puts in place a clear mechanism for recognizing and vesting these rights to provide food and livelihood security for forest-dwelling communities while maintaining ecological sustainability.

Broadly, the rights recognized under FRA can be clubbed into the following three categories:

- i) Individual forest rights (IFR) to legally hold forestlands that the forest dwelling communities have been residing on and cultivating prior to 13 December 2005.
- ii) Community rights (CRs) of ownership, use and disposal of 'minor forest produce', also known as non-timber forest produce (NTFP). CRs include rights of grazing, collection of firewood, fish and other such products from water bodies, as well as rights to biodiversity and intellectual property, including those related to traditional knowledge.
- iii) Community forest resource (CFR) rights under Section 3(1)(i) to protect, regenerate, conserve or manage forest resources for sustainable use, providing for community governance of forests.

FRA rules provides three different forms (Form A, Form B and Form C) and a three-tier process at the village, sub-divisional, and district levels for claiming, processing and formal recognition of the aforementioned rights. Rule 16 of the 2012 FRA Amendment Rules provides for government schemes related to land improvement and productivity, basic amenities, and livelihood measures of various government departments to be provided to communities whose rights have been recognized, paving the way for convergence of governmental schemes towards village and forest development.

It is not the first time that local communities have been recognized as important stakeholders in forest governance in India. In 1988, the National Forest Policy had paved the way for semi-decentralization of forest governance in the country, leading to the emergence of joint forest management (JFM) in the 1990s. However, barring a few exceptions, JFM largely failed in recognizing communities as equal stakeholders in the management of forests, with forest departments retaining the decision-making power and final authority. FRA seeks to redress the issue by recognizing gram sabhas as the authority to protect, regenerate and manage CFR areas (see *Box: CFR versus JFM*).

CFR VERSUS JFM

Starting in 1990, JFM covered nearly 14.4 million ha (18 per cent) of India's forests in the first decade of its implementation,¹ which expanded to 24.6 million ha (32 per cent) by March 2010.² CFR rights, on the other hand, have been recognized over only 1.1 million ha of forestland until July 2016, nearly a decade after the enactment of FRA. If JFM and CFR management were essentially the same, the pace of CFR recognition would probably have been higher. That, however, is not the case.

CSE's interaction with forest department officials revealed that several forest officers continue to think that CFR management was essentially the same as JFM. In sharp contrast, forest-dependent communities articulated the difference between the two management regimes clearly. In Angul district of Odisha (where JFM is practiced in many villages through Vana Samrakshana Samitis (VSSs) and the state government's recently launched Ama Jungle Yojana) the understanding among communities regarding JFM was that forests assigned to their village belonged to the state, over which they only had user rights. On the other hand, in villages where CFR rights have been recognized, communities were clear that the forests belonged to them.

Table 1: Important differences between JFM and CFR

Joint forest management	Community forest resource management
i) Lacking legal sanctity, JFM is an approach to involve local people as partners in the protection and management of forests, implemented through resolutions adopted by states.	CFR rights are provided under a Central legislation, thus, they have legal backing. Guidelines issued by the Ministry of Tribal Affairs in April 2015 require CFR areas to be recorded as a new category of forest area under the record of rights (RoR) maintained by the forest department. ³
ii) The allocation of forestland under JFM is done in an ad hoc manner by the forest department.	Under the CFR provisions of FRA, customary forest boundaries of a village are identified and demarcated by the gram sabha. Often the CFR area of one gram sabha cuts across the areas of more than one JFM group. ⁴
iii) The executive committee of the joint forest management committee (JFMC) is supposed to have a number of official members from the forest department and, sometimes, also the panchayat.	The committees constituted for CFR management comprise members exclusively from the gram sabha with no representation of forest or other officials.
iv) JFM provided for a state-specific benefit-sharing mechanism from the harvest of forest produce. In Odisha, JFMCs are entitled to 100 per cent of intermediate NTFP produce and 50 per cent share from timber at the time of final harvest. In West Bengal, the share from timber is 25 per cent of the net profit.	CRs and CFR rights provide 100 per cent authority over collection and sale of all NTFPs to the gram sabhas. Timber rights are contentious under FRA.
v) Under JFM, communities had usufruct but no tenurial rights over forestlands assigned to them. JFMCs were subject to dissolution if an inspecting forest officer recorded irregularity or illegality in their work.	CFR provisions of FRA provide tenurial rights to gram sabhas over forestlands. FRA does not provide for revocation of forest rights once recognized.

Source: CSE compilation

As elucidated in the table above, JFM allowed forest departments to retain territorial jurisdiction and control over forests and forest resources, while they are transferred to the gram sabhas under the CFR regime. Though JFM envisaged collective decision-making regarding forest management, it suffered from the problem of unbalanced power relationship between the forest department and local communities. The benefit-sharing commitments made under JFM arrangements were often dishonoured. JFM also attracted criticism for being reduced to a short-sighted strategy for the forest department to protect forests in a cost-effective manner by securing the services of local communities.⁵

A 'gram sabha' is an assembly consisting of all adult members of a village. Section 5 of FRA empowers gram sabhas to 'protect wildlife, forest and biodiversity' and 'ensure that adjoining catchment areas, water sources and other ecological sensitive areas are adequately protected'. Rule 4(1)(e) requires gram sabhas to constitute committees for carrying out the provisions of Section 5 of the Act. These committees, also called CFR management committees (CFRMCs), are expected to prepare 'a conservation and management plan for community forest resources in order to sustainably and equitably manage CFR areas'. On 23 April 2015, Ministry of Tribal Affairs (MoTA), the nodal ministry for the implementation of the Act, issued guidelines which require CFR areas to be treated as a new category of forests, and recorded in the record of rights (RoR) maintained by the forest department. The guidelines also recognize gram sabhas as the authority to 'modify the micro-plan or working plan or management plan of the forest department to the extent necessary to integrate the same with the conservation and management plan of the gram sabha'. Thus, FRA Rules and directions from MoTA make the authority of gram sabhas in governing CFRs very clear.

It has been more than ten years since the Act came into force. The implementation, however, has been tardy. FRA provides for the formal recognition of forest rights through the issuance of title deeds. According to MoTA, title deeds for individual forest rights had been issued to 1,759,955 individuals or households over 4,119,650 acres or 1.64 million hectares (mha) of forestland. CRs had been recognized over 9,985,095 acres or 4 mha, as of October 2017.¹

MoTA does not provide segregated data for CRs and CFR areas—all community rights pertain to CRs which might or might not include CFR areas. CFR rights are considered to be formally recognized only when the title deed is issued in the name of a gram sabha, specifically mentioning the right of protection and management under Section 3(1)(i). Though MoTA does not maintain a record of CFR rights separately, civil society organizations (CSOs) in the country have been keeping track of them.

On the basis of data on CFR rights collected from the state tribal welfare departments and CSOs working on FRA, a citizen's report by Community Forest Rights—Learning and Advocacy Group (CFR-LA) has calculated that CFR title deeds had been issued to just a little over 10,500 villages spread over 1.1 mha of forestland till July 2016. The citizen's report has also estimated that the minimum area over which CFR rights can be recognized in India is about 34.6 mha, nearly 45 per cent of the total recorded forest area in the country. CFR rights have, thus, been recognized over less than 3 per cent of the potential area.² The estimated potential area of 34 million ha is also close to the total area of 31 million ha of forests that lies within the boundaries of revenue villages, as calculated by the Forest Survey of India in 2009.³ See *Map: Potential and recognized CFR areas of India*.

Only seven states have formally recognized the rights of forest dwelling communities to manage and govern their forest resources. Among these, too, there are huge disparities. Maharashtra, which has a strong and active presence of CSOs, has issued title deeds over the maximum extent of forestland, 706,524

ha. Odisha, which has historically had a strong community forest management movement, follows Maharashtra, though it lags behind significantly despite having similar CFR potential. Rajasthan has just kickstarted the CFR recognition process and only 152 ha of its forests have been brought under community management till July 2016.

Two states with a huge forest-dependent population and the largest CFR potential, Madhya Pradesh and Chhattisgarh, have not issued a single proper CFR title deed till date. In these states, there are reports of communities exercising their protection and management rights irrespective of the mention of these rights on the title deed. In undivided Andhra Pradesh, CFR title deeds were issued over 3.77 lakh ha in 2010 in the name of the Vana Samrakshana Samitis (JFM committees) and not the gram sabhas, as required by law.⁴ The case is similar with Madhya Pradesh. These rights have, therefore, not been recorded in the assessment of the actual recognition of CFR rights. In West Bengal and other states, communities have come forward to exercise their protection and management rights despite the lack of CFR title deeds.

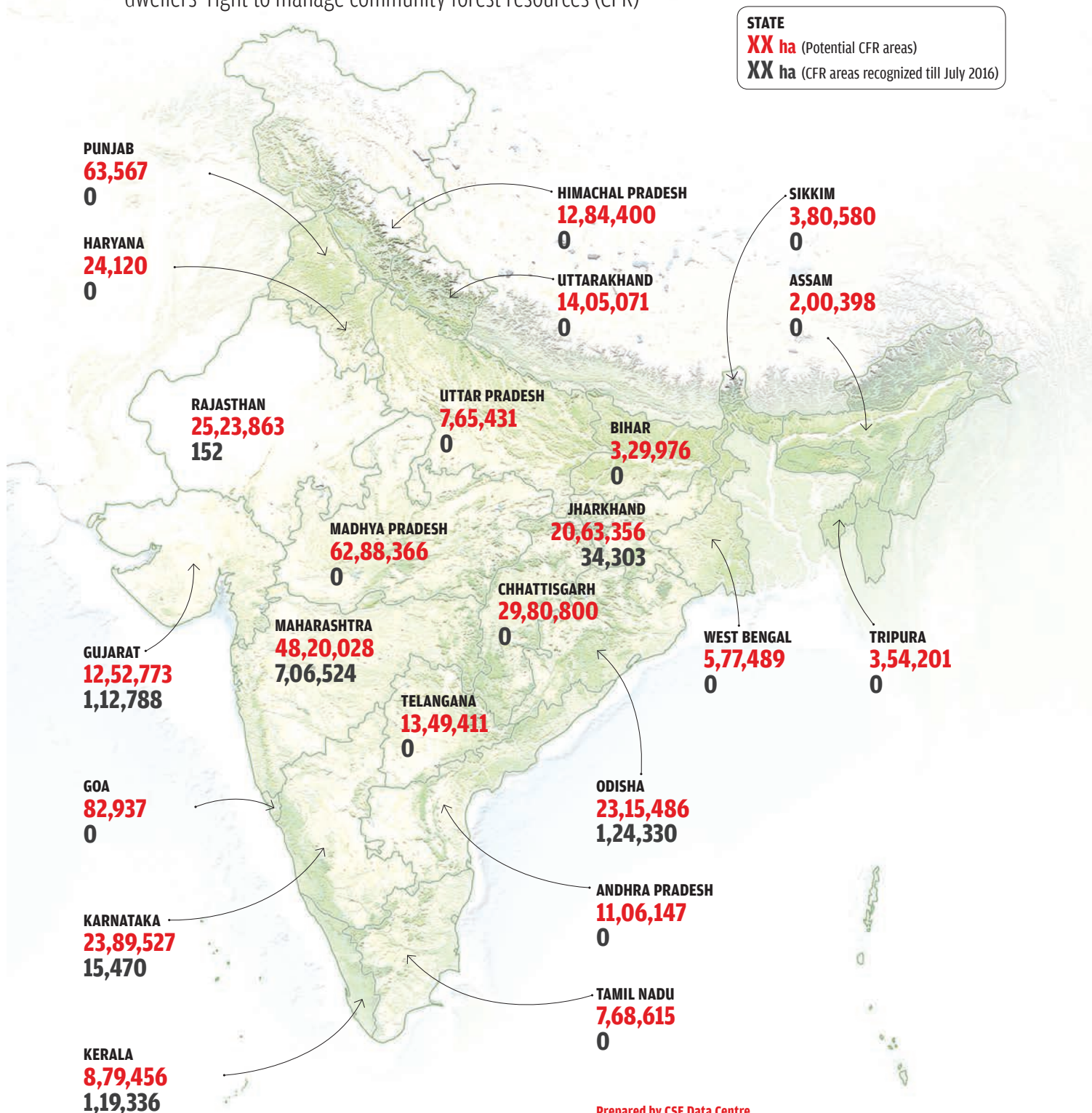
Rule 12(g) of the FRA Amendment Rules of 2012 states that the delineation of CFR approved by a gram sabha will be considered legal formalization and recognition of the powers of the community in access, conservation and sustainable use of such CFR areas. This means that communities do not have to wait for CFR title deeds in order to exercise their protection and management rights. In practice, however, communities have often faced stiff resistance from forest departments in attempts to assert CFR rights despite gram sabhas having approved and filed CFR claims.

India is not the only country to have introduced reforms in policies and legislations to enable greater role for communities in decision making and management of forests. Many countries have started the process of facilitating community ownership of forests much earlier than India. As of 2013, at least 513 million hectares, or 15.5 per cent, of the world's forests were under some form of community control.⁵ In Vietnam, 26 per cent of forestland was brought under the management of local people from 1990 to 2009.⁶ In Nepal, more than 30 per cent of the total forest area has been brought under community forests since 1993, while the estimated potential is about 60 per cent.⁷ Amendments in forest laws in the 1980s have allowed communities to manage nearly 70 per cent of Mexico's 65 million ha of forests.⁸ See *Figure 1: CFR rights around the world*. India, on the other hand, has been slow in recognizing the rights of communities over forests.

Though the state of recognition of CFR rights is poor in India, communities in different parts of the country have started exercising these rights through their gram sabhas. It was against this backdrop that CSE undertook a study to learn about the aspirations of communities for their CFR areas and what these mean for the future of forest governance in India. CSE spoke to members of more than 30 villages in five districts of four states (Maharashtra: Amravati and Chandrapur; Odisha: Kandhamal; West Bengal: Alipurduar; and Gujarat: Narmada). In these villages, gram sabhas have either already developed plans to govern their CFR areas or are in the process of doing so. Detailed case studies are provided in the next chapter.

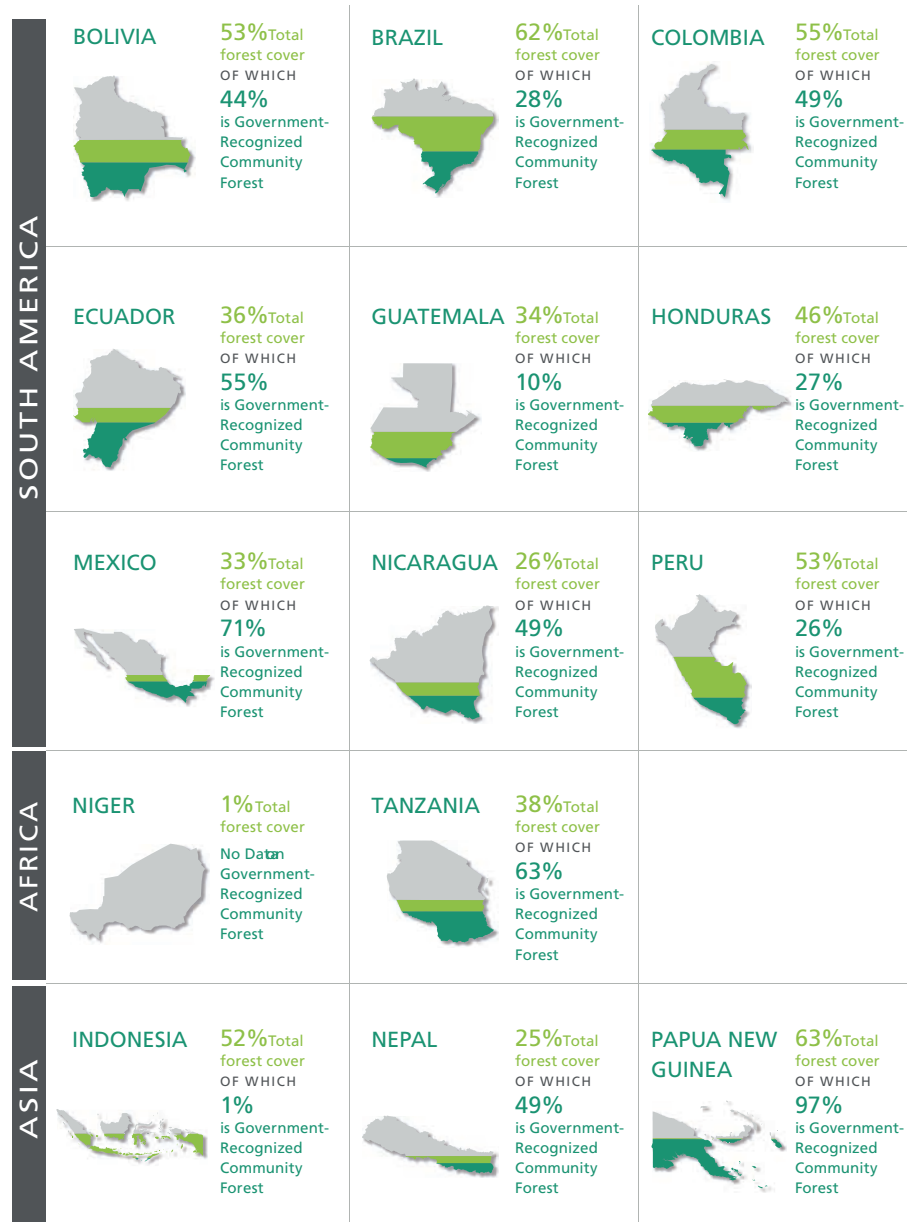
Map: Potential and recognized CFR areas of India

State governments across the country have been slow in recognizing forest dwellers' right to manage community forest resources (CFR)



Prepared by CSE Data Centre
 Infographics: Raj Kumar Singh
 Source: Community Forest Resource-Learning and Advocacy, 2016

Figure 1: CFR rights around the world



Source: World Resources Institute 2014

Group discussions and informal interviews were carried out with members of the gram sabhas and local non-profits facilitating the process, to understand the objectives of CFR management and the initiatives taken or planned to meet these objectives. The study aimed at identifying the challenges of CFR governance and the role of institutions in the process. CSE also interacted with forest department officials in some of these districts to get their perspectives on the management of forestlands by communities. Secondary literature review of CFR governance experiences outside the villages visited was also carried out for the study.



2. CFR management experiences

Initiatives, achievements and challenges

(Case studies)

District geographical area

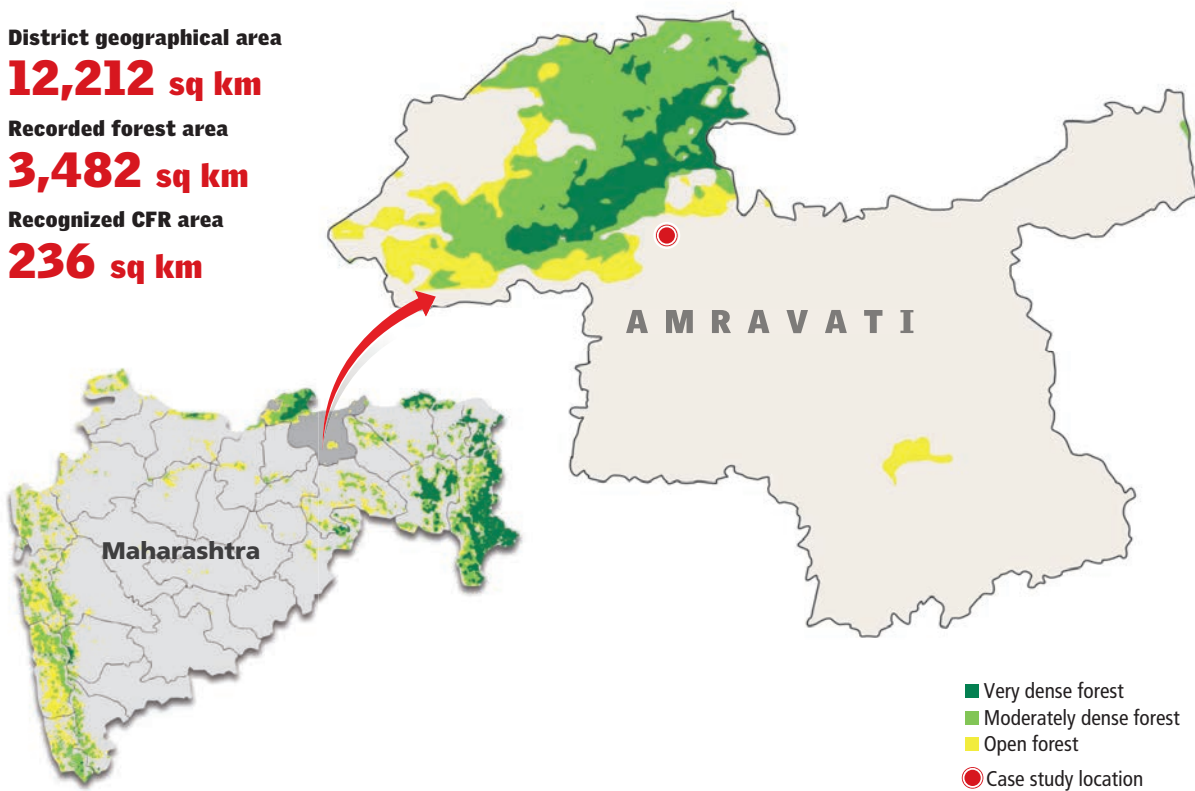
12,212 sq km

Recorded forest area

3,482 sq km

Recognized CFR area

236 sq km



AMRAVATI: Restoring degraded forests

MAHARASHTRA—A BRIEF OVERVIEW

Number of districts: **36**

Geographical area: **307,713 sq km**

Recorded forest area: **61,579 sq km**

Forest cover: **16.45 per cent**

INDIVIDUAL FOREST RIGHTS (IFR)

No. of title deeds: **106,898**

Area under IFR: **577,026 acres or 230,810 ha**

COMMUNITY FOREST RIGHTS (CFRs)

No. of title deeds: **5,748**

Area under CFRs: **4,435,944 acres or 1,774,377 ha**

In the Paratwada range of Amravati forest division, four villages—Nayakheda, Payvihir, Upatkhedha and Khatijapur—have started restoration of degraded forests in their CFR areas. In 2012, facilitated by the local non-profit Khoj Melghat, these villages received title deeds for CFR over 990 ha of continuous forest patch.

Socio-economic profile

The villages are located in Achalpur taluk of Amravati district with a heterogeneous population comprising of Korkus, Balavis and Gavlis. Korkus, a tribal community, constitute the dominant population in all the four villages, ranging from 57 per cent in Nayakheda to 80 per cent in Payvihir. Less than 35 per cent households own agricultural land, of which a majority are marginal farmers owning less than 5

acres of land apiece. A few households practice animal husbandry, especially in Nayakheda. Landless households depend predominantly on labour for livelihood. Emigration had been rampant in these villages.

Status of forests—pre-CFR scenario

The southern dry deciduous forests in the Paratwada forest range are highly understocked, with *palash* (*Butea monosperma*) as the dominant tree species.

The area is hilly with nothing to bind the soil, leading to heavy erosion. ‘These villages have received the worst forests under the FRA,’ said the assistant conservator of forests (ACF), Amravati forest division. The forestland, now recognized as CFR, used to be under the JFM programme of these villages. However, JFM had existed only on paper as the communities were not convinced about the benefits of the programme and the forest department could not solicit their participation in forest management.

The major dependence of the communities on forests now under CFR had been subsistence fuelwood use and livestock grazing. There is not a substantial amount of NTFP in these forests—the primary ones being *sitafal* (custard apple) and *tendu* leaves. Timber is hardly available in the forests, but as more houses are covered under the Indira Awas Yojana, the demand for timber is abating anyway.

Members of the communities recall a time when the forests used to be diverse and dense, and hold themselves responsible for the extent of degradation. ‘The forest department did not bother too much about these forests either,’ said Amit Sonare, member of Payvihir gram sabha. A case of tragedy of the commons.

CFR initiatives

The turnaround came with the recognition of CFR rights in 2012. Sitafal trees in Payvihir’s CFR area used to be auctioned by the forest department at nominal rates. After recognition of the CFR rights, the village resisted when the department announced the auction of all trees in its CFR area at a meagre Rs 1,500. The forest department had to give in and the village began experimenting with marketing the fruits instead of auctioning the trees. Even after deducting the plucking wages paid to the members of the village, the fruit crop earned the village profits of Rs 16,000 in the first year. This marked the entry of the village in the management of its CFR area. The story has been similar in the other three villages.

In the first year, all four villages used *shramdan* (voluntary, unpaid labour) to plant bamboo (*Dendrocalamus strictus*) in their CFR areas and the forest department channelized the forestry funds under (Mahatma Gandhi National Rural Employment Guarantee Act) MGNREGA for soil and moisture conservation work in the CFR areas. In addition to the plantation of mixed species, and soil and moisture conservation work every year, the villages carry out weeding and removal of invasive species such as lantana or non-useful trees like *Acacia Senegal* that had been planted by the forest department for greening these lands.

Sitafal (custard apple) is a valuable resource in the CFR areas of these villages. The villagers have decided to market the fruit to Mumbai and Nagpur, under the brand name ‘Naturals’, instead of auctioning the trees, increasing the profits



SHRUTI AGARWAL/CSE

Table 2: Activities taken under CFR management in Amravati, Maharashtra

Village	Area recognized as CFR (ha)	Plantations			Soil and water conservation (CCT and WAT)*	Assisted natural regeneration (weeding, lantana eradication, etc.)
		Area brought under plantations up to 2015-16 (ha)	Species planted	Survival rate		
Payvihir	193	50	Mixed species	68-70 per cent	70	70
Nayakheda	631	48	Mixed species over 10 ha, teak over 30 ha, fodder over 8 ha	47-57 per cent	25	70
Khatijapur	36.84	5	Mixed species	57 per cent	25	20
Upatkhedha	129.25	30	Mixed species	55-66 per cent	20	70

*CCT: Continuous Contour Trenches, WAT: Water Absorption Trenches
 Source: Conservation and management plan of Payvihir, Nayakheda, Khatijapur and Upatkhedha

The survival rate of plantations of species such as bamboo and teak in CFR areas of Amravati district has been an impressive 70 per cent



SHRUTI AGARWAL/ CSE

The plantation area is closed for grazing, and the villages patrol the area to prevent grazing or fuelwood collection by neighbouring villages. These villages have also identified forest patches in their CFR areas to be kept untouched from any intervention to observe the biodiversity and evolution of natural flora and fauna that will take place. Payvihir has set aside 15 ha for this purpose. Nayakheda has built watering holes for wildlife in its CFR area.

The most preferred species for plantations are *amla* (*Emblica officinalis*), custard apple and bamboo—short-rotation species that provide assured economic returns year after year, once they are mature enough to harvest. Other useful species such as *mahua* (*Madhuca longifolia*), *hirda* (*Terminalia chebula*), *baheda* (*Terminalia bellirica*), *charoli* (*Buchanania lanzan*), mango (*Mangifera indica*), and *bhilawa* (*Semecarpus anacardium*) have also been planted. Only one of these four villages, Nayakheda, has planted 75,000 trees of teak, which would be ready to harvest after 30–35 years. It emerged from the discussion with the people of this village that they had CFR rights over 631 ha, the highest among the four villages. Allotting as much as 30 ha for teak was an experiment which the village had agreed to undertake based on the forest department's suggestion.

The villages, however, reserve the right to challenge any decision of the forest department concerning their CFR areas. For instance, the forest department had sent karanj (*Pongamia pinnata*) saplings to the villages for plantations, which the gram sabhas refused to plant as the species has no local, economic or ecological use in the opinion of the villagers. The gram sabha of each village has prepared its own ten-year CFR management plan, which includes activities like soil and water conservation, plantation, and assisted natural regeneration. Rule 16 of FRA provides for convergence of resources from government line departments to improve the productivity of forestlands recognized under the Act. In Amravati, a district convergence committee (DCC) has been constituted for this purpose. The DCC is chaired by the district collector and has representatives from panchayat, tribal welfare, forest, agriculture, animal husbandry, irrigation and horticulture departments as well as civil society organizations working on FRA in the district. In the four villages, line agencies have been working closely, through regular meetings (at least once in three months) to support activities developed under CFR management plans. A total of Rs 5.93 crore from different line agencies has been pooled into the CFR development of these villages in the first four years.

Benefits from CFR initiatives

There is an overall improvement in the condition of the forests in the CFR areas as a result of the initiatives. Natural regeneration has led to increased availability of fodder for livestock. So far, *amla* and teak have been the best surviving species in the degraded conditions. Bamboo has done well in Payavihir with a 70 per cent survival rate, but villages like Nayakheda have been struggling in protecting this species because wild boars often damage bamboo plantations. These villages are planning to plant tubers around the periphery of CFR areas, or do some kind of fencing around the bamboo plantations, to protect them from such attacks. Custard apple plantations have mostly failed, and the locals



SHRUTI AGARWAL/CSE

Due to the round-the-year livelihood opportunities created under the CFR regime, emigration from these villages has reduced considerably

have come to believe that enabling natural regeneration of custard apple trees would perhaps be the best way to increase its production in their CFR areas.

‘These villages are taking ownership of the CFR areas and it shows in the quality of work they have done on these forests. We had not been able to achieve such impressive results previously,’ the ACF observed. Payvihir gram sabha won the UNDP Biodiversity award in 2014 for its ‘exemplary work on decentralized forest governance’. According to the locals, wildlife has returned to Nayakheda’s CFR areas, and the gram sabha received the Sant Tukaram award for its forest conservation efforts in 2016.

CFR areas provide year-round employment to members of the four villages, where more than 65 per cent of the households are landless. From 2012–13 to 2014–15, MGNREGA generated 38,291 days of employment and wages worth Rs 73.55 lakh in the four villages, which translates into 3,189 wage days and an average payment of Rs 6.13 lakh per village per year. A remarkable achievement of the CFR process in these villages has been the drastic reduction in emigration. The villages are marketing custard apples from their CFR areas under the brand name of ‘Naturals’ to Mumbai and Nagpur and receiving remunerative returns.

Issues and challenges

One of the biggest challenges for these communities has been to restrict neighbouring villages from grazing livestock within their CFR areas. 'Sometimes we have to fine our friends and relatives. That is very difficult,' said Amit from Payvihir. Upatkheda entered into conflicts with people from neighbouring villages when they refused to stop grazing their cattle in its CFR area if Upatkheda was allowing grazing by cattle of its own members. The villagers, therefore, decided to stop grazing their own cattle as well; instead, they now cut fodder from their CFR areas and carry it back to their homes to feed their livestock.

Nayakheda also reported a case of 'encroachment', when a group of outsiders from a nomadic community camped inside the village's CFR with their livestock. The village sent several warnings to the community to leave; which went unheeded. Finally, the village sought the intervention of the forest department to remove the encroachment.

Nayakheda's CFR area is not as abundant in custard apples as the area of other villages. Custard apple plantations have largely failed. The major benefit to the village from CFR has been the creation of employment opportunities under MGNREGA. Their protection efforts have brought wildlife back to the CFR areas—leopard sightings have been reported, and so have cases of cattle killings by these spotted big cats. There are concerns about rise in crop damage by wildlife too. Though the forest administration has been quick to issue compensation to the affected households, the economic benefits from CFR are yet to arrive. If the economic losses from reemergence of wildlife outweighs the benefits from CFR, it is not sure if the interest of the village in CFR management will be sustained.

District geographical area

11,443 sq km

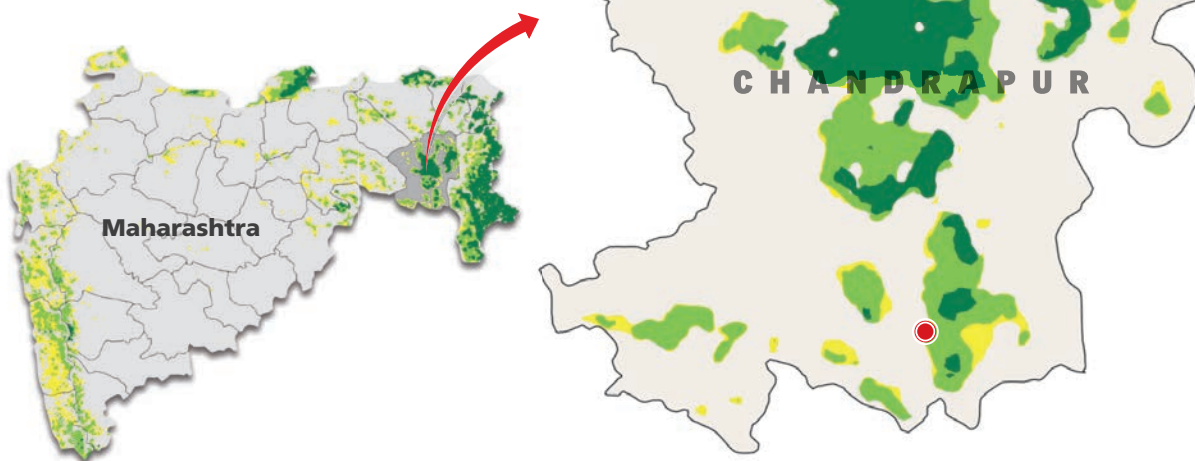
Recorded forest area

3,468 sq km

Recognized CFR area

65 sq km

- Very dense forest
- Moderately dense forest
- Open forest
- Case study location



CHANDRAPUR: A tool for local self-governance

MAHARASHTRA—A BRIEF OVERVIEW

Number of districts: 36

Geographical area: 307,713 sq km

Recorded forest area: 61,579 sq km

Forest cover: 16.45 per cent

INDIVIDUAL FOREST RIGHTS (IFR)

No. of title deeds: 106,898

Area under IFR: 577,026 acres or 230,810 ha

COMMUNITY FOREST RIGHTS (CRs)

No. of title deeds: 5,748

Area under CRs: 4,435,944 acres or 1,774,377 ha

In the Chandrapur district of Maharashtra, the gram sabha of Panchgaon is demonstrating the capabilities of communities to sustainably manage resource-rich forests.

Brief socio-economic profile

Located in the Kothari taluk of Chandrapur, Panchgaon is a small village of 60 households where 72 per cent population belongs to the tribal Gond community. The remaining households belong to different communities such as Kunadi, Gadilohar, Beldhar, Katevar, and Phulmadi, which fall within the other backward classes (OBC) category. Less than 40 per cent households in the village own cultivable land. Wage labour on farms or in forests constitutes the most important source of income for a majority of the households. The local population also supplements

their income through the sale of NTFPs such as *mahua*, *charodi*, and *khirni*. Emigration to Hyderabad, Bengaluru and other cities for work was quite common in the village.

Status of forests—pre-CFR scenario

The southern tropical dry deciduous forests of Panchgaon's CFR area were legally classified as reserved forests prior to being CFR. These diverse forests are

home to more than 100 tree species and at least 22 species of grass. Panchgaon's CFR is rich in wildlife, which includes tigers, leopards, sloth bears, bison, *chital*, *sambar*, and striped hyena. The presence of more than 70 species of birds in the CFR areas has also been documented. The gregarious flowering of bamboo in the 1980s led to dense regeneration of the seedlings, scattered in patches throughout Panchgaon's CFR area.

Like most forest-dependent villages in the country, residents of Panchgaon, too, lived in fear of the forest department when they had to go to the forest for collecting fuelwood or other NTFPs. Forests were a paltry source of livelihood only if they were ready to deal with the never-ending harassment of officials, which meant people preferred emigration. The village felt alienated from its forest and there was little sense of ownership towards the forest. The turnaround came with the recognition of CFR rights in 2012.

CFR initiatives

Panchgaon was the first village in the district to obtain CFR rights. The formal recognition came after a long struggle which had united the villagers in the cause of community governance of forests. As a first step, the village mandated that all households would contribute at least five regulations for the management of its CFR area. Once the list of proposed regulations was compiled, which were more than 500, the gram sabha discussed and debated them and finalized 115-odd regulations for CFR management. Thus, the entire village was party to the decisions taken and the gram sabha's success in governing its CFRs can be partly attributed to this inclusive and democratic approach.

The CFR area of 1,006 ha has been divided into 24 units called *tapus*, and given local names recognized by the villagers. For example, *Amla Bhoyar* is the *tapu* which has a cave with one *amla* tree on its top. *Gohru Lavan* is another *tapu* named after a man Gohru who had died there several years ago. The *tapus* are being demarcated by fire lines. The gram sabha has also reserved 34 ha of well-preserved wildlife-rich natural forest called the Panchgaon sanctuary. The sanctuary is a source of perennial streams.

Voluntary patrolling of forests has also been mandated. The villagers have been divided into groups, with the leader of each group selected on a rotational basis. The name of the group leader responsible for patrolling on a given day is displayed on a blackboard in the heart of the village. The groups patrol the area in turns. Absence from patrolling for unexplained reasons can cost a member up to Rs 200. The gram sabha maintains a register which lists, on a daily basis, the names of anyone

Panchgaon has sub-divided its CFR area into tapus to extract its bamboo in a systematic and sustainable manner. It has sent villagers to Nagpur to learn how to treat bamboo to make it fit for use in the construction industry. It also sells its bamboo through an open tender



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A part of the profits from the sale of bamboo is being used in development activities, and forest protection and management

and everyone who has entered their forests and the purpose of the visit. ‘If there are genuine needs of other villages for certain kinds of forest produce from our CFR, the gram sabha sits together and takes a decision,’ said a member from the village.

There are rules for sustainable harvest of NTFPs which are abundantly available in the CFR area and have potential market value. Bamboo has already brought huge turnover to the village—close to Rs 1.5 crore from 2012–13 to 2016–17. The gram sabha is, however, cautious to ensure that there is no overexploitation of this valuable resource.

Facilitated by the local non-profit, Paryavarn Mitra, the village prepared a working plan for bamboo in 2012 and submitted it to the district forest administration. The CFR area has been divided into four blocks for bamboo harvesting and each of the four blocks is further sub-divided into three sub-blocks. Panchgaon is practicing rotational felling of bamboo such that one block plus one sub-block forms the area that can be harvested in a given year. The rules in the plan also require that only those bamboo culms that are three years or older be harvested. At least eight culms have to be retained in a clump. Bamboo cannot be harvested between June and September.

‘We learnt the technical skill of cutting bamboo better when we worked in the bamboo plantations of Forest Development Corporation of Maharashtra. A slant cut must be made to the bamboo above the first node,’ the members said.

A significant resolution by the gram sabhas has been the complete ban over removal of *tendu* leaves, forgoing huge revenue from this lucrative NTFP found in abundance in Panchgaon’s CFR area. ‘The collection of *tendu* leaves requires extensive lopping and setting fires in the forest, affecting the growth of trees and, in turn, the production of edible *tendu* fruit. Moreover, *tendu* leaves are used to make *bidis* (country cigarettes) which are not good for health. On the other hand, birds eat the *tendu* fruit; and so do we,’ says Ramesh Tamke, member of the gram sabha.

The village is abundant in several other income-generating NTFPs such as *mahua*, *choradi* and *khirmi* but has not sold anything other than bamboo since obtaining CFR rights. 'Our plan is to start marketing these NTFPs when we have a proper facility for storing them,' said Rekha Tamte, another villager. The emphasis on storage is to increase the shelf life of these NTFPs.

In 2016–17, the village also carried out gully plugging at 200 sites within the 1,006 ha CFR area for soil and moisture conservation. The village has proposed bamboo plantations on degraded forest patches. Bamboo saplings will have to be procured from Amravati as there are no nurseries in Chandrapur raising the *Manvel* species (*Dendrocalamus strictus*) of bamboo, which is native to the local forests.

Panchgaon is also experimenting with an innovative model to ensure gender equity in CFR governance. Realizing that mandating the representation of 50 per cent women in meetings or committees is not enough to solicit active participation of women, often due to socio-cultural constraints, where men dominate public fora, the village has decided to hand over the management of their CFRs to men and women on a rotational basis. Starting October 2017, a group of 38 women from the village is responsible for all conservation and management-related decisions for the village's CFR area. The group will manage all aspects of bamboo trade, including stock taking, marketing, book keeping, tax filing, etc. The group will also have autonomy to decide the utilization of profits from bamboo.

Considering that women are already overburdened with their household work, tasks demanding time and physical labour, such as forest patrolling, would be performed exclusively by men. A small honorarium has also been fixed for the women so that their day-to-day livelihood activities are not affected. A conscious decision was also taken to make women a part of the knowledge

Traditionally, tendu collection was done by setting fires in the forests, so that the maximum number of leaves could be obtained easily. After the grant of CFR rights, the village banned tendu collection because the villagers felt it was wasteful utilization of forest resources and the end product (beedis) are also a health hazard



SHRUTI AGARWAL / CSE

creation process in CFR governance. Accordingly, a committee of 10 members, eight of them women, was constituted for the purpose of carrying out stock mapping of the vegetation in the CFR area.

Benefits of CFR initiatives

Panchgaon has already reaped significant social and economic benefits from its CFR initiatives. The CFR regime has provided tremendous livelihood opportunities to the villagers—bamboo alone has created a huge fund for the gram sabha, to the tune of Rs 1.06 crore in four years, as described in *Table 3: Turnover and profits from bamboo for the Panchgaon gram sabha*. The annual income from bamboo has averaged Rs 20,000 per household.

The utilization of profits by the gram sabha provides interesting insights into its vision for forests and its people. Some of the profits have been ploughed back to carry out forestry activities such as establishing fire lines and plugging gullies, to improve the health of the CFR area as well as to create employment for villagers. Though emigration still takes place during monsoons, the scale has reduced significantly.

Going a step further, the gram sabha has also invested its profits in sending a few members to Nagpur to learn the skill of treating bamboo to make it fit for use in the construction industry. The equipment required for treatment has already been purchased, and trained members have started treating bamboo in the village. ‘A treated bamboo pole will fetch three times the price of an untreated one,’ says Vijay Dethe from the non-profit Paryavaran Mitra.

Panchgaon has bought 5.5 acres of land to build an office and a bamboo shed for storage of and value addition to NTFPs. The village also spent Rs 2 lakh from its profits in 2015–16 to organize a ‘gram sabha premier league’—an inter-village *kabaddi* tournament to promote sports. Scholarships have been planned for needy students from the village, on the condition that they utilize the lessons learnt from their education for the development of the village. Such decisions are taken collectively by the village in gram sabha meetings.

Panchgaon claims that the forests in its CFR area are much healthier now compared to 2012 as a result of their protection and conservation efforts. ‘The density of forests has increased. *Tendu* trees would not grow this tall in the past,’ says Rekha, pointing to a full-grown *tendu* tree.

Table 3: Turnover and profits from bamboo for the Panchgaon gram sabha

Year	Turnover from the sale of bamboo (in Rs lakh)	Wages for bamboo harvesting (in Rs lakh)	Profit for the gram sabha (in Rs lakh)
2013	6.33	1.25	5.08
2014	33.89	12.86	18.62
2015	61.7	12.05	45.56
2016	51.22	20.42	30.8
Total	153.14	46.58	106.56

Source: Panchgaon gram sabha register

Table 4: Bamboo boom in Panchgaon's CFR area

Year	Long bamboo (poles)*	Bamboo bundles**	Weight of bamboo (MT)	Revenue (in Rs lakh)	Revenue (Rs/ MT)
2013-14	29,578	8,100	249	6.33	2,544
2014-15	136,710	23,200	947	33.89	3,580
2015-16	222,000	12,450	1,177	61.7	5,243
2016-17	337,825	25,248	1,881	51.22	2,723
Total	696,535	60,898	4,004	153.14	

*Long bamboo comprises of poles above 18 ft in length. 40 running meters of such bamboo make 30 kg in Chandrapur

**Bamboo bundles comprise of sticks with length less than 2 m. 70 such bundles make a MT in Chandrapur.

Source: Analysis based on data collected from Panchgaon's Gram Sabha audit registers.

In a significant case of economic empowerment, the village only sells its bamboo through open tender and has successfully managed to negotiate higher prices, from Rs 2,544 per MT in 2013 to more than double at Rs 5,243 in 2015. The biggest user of Panchgaon's bamboo is the agricultural sector, which was badly hit by the drought in Maharashtra in 2016. As a result, the demand for bamboo in 2016 was low and the gram sabha agreed to sell it at a lower price. The village has also paid taxes amounting to more than Rs 8 lakh from bamboo in the form of value added tax and tax collection at source to the government in the first four years of bamboo harvesting.

Panchgaon is also determined to change the power relations between the village and the forest department. 'Whether it is the forest guard or the Chief Conservator of Forests, they have to sign our registers before entering the CFR area,' said the members. Panchgaon is demanding that the funds allotted to the forest department for managing the forests now recognized as CFR should be diverted to the gram sabha. 'After all, our gram sabha is managing these forests now,' its members argue.

Issues and challenges

Panchgaon is a successful CFR model that provides useful lessons for the rest of the country. The village has not had an easy ride, especially when it tried to sell bamboo in the first two years. Conflicts with the forest department were commonplace, though relations have improved now. The department, however, did not seem to understand the paradigm shift in forest governance under CFR. 'Residents of Panchgaon act like the managers of the forest. Our forest guards have to sign their registers even when they are only doing their duty of protecting the forests. The village should also seek our scientific inputs on forest management,' said district officials of Chandrapur forest division.

In fact, the village has not had any government support, financial or technical, in its CFR governance process other than the guidance from the local non-profit, Paryavaran Mitra. While Panchgaon's self-governance has been enabled by formally recognized rights over its CFR, strong leadership and resource-rich forests, the village can benefit further from external support such as convergence of MGNREGA in the CFR area. Panchgaon seems more than capable of developing a convergence plan, if encouraged and supported by the district administration.

District geographical area

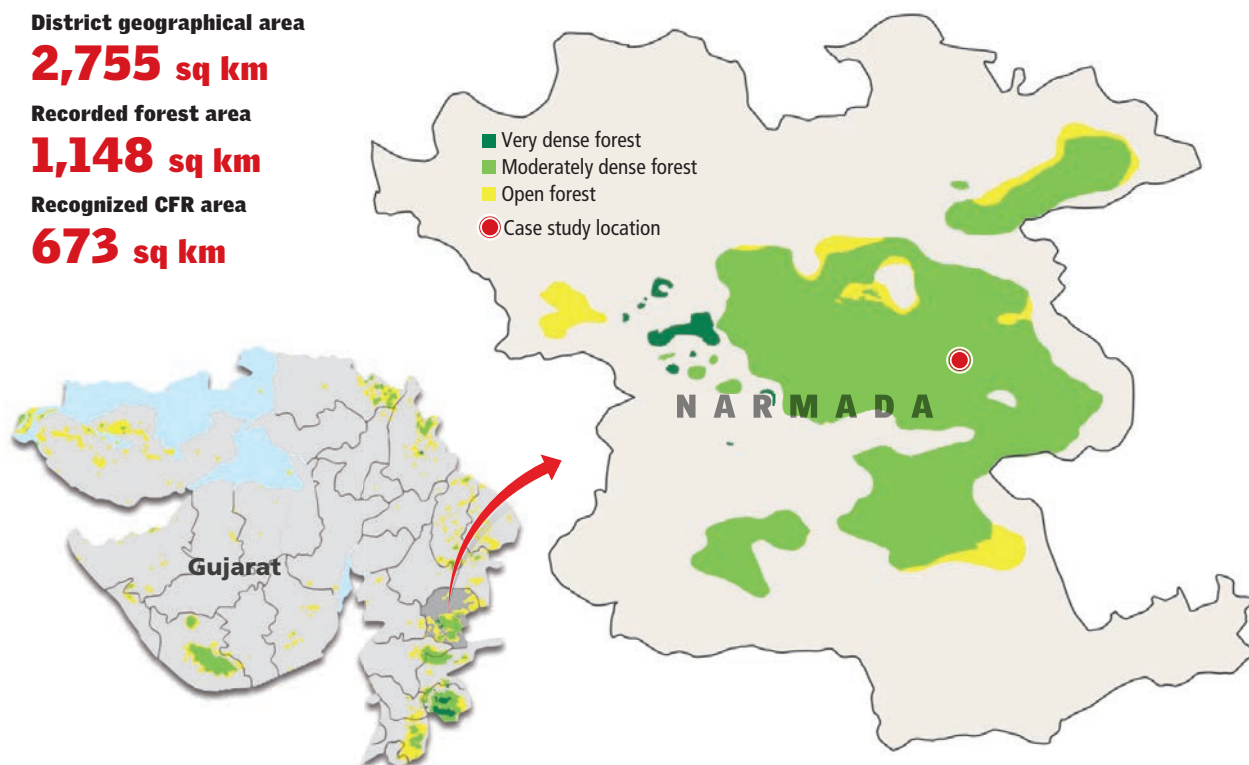
2,755 sq km

Recorded forest area

1,148 sq km

Recognized CFR area

673 sq km



NARMADA DISTRICT: Watershed approach

GUJARAT—A BRIEF OVERVIEW

Number of districts: **33**

Geographical area: **196,022 sq km**

Recorded forest area: **19,113 sq km**

Forest cover: **7.48 per cent**

INDIVIDUAL FOREST RIGHTS (IFR)

No. of title deeds: **81,178**

Area under IFR: **127,068 acres or 50,827 ha**

COMMUNITY FOREST RIGHTS (CRs)

No. of title deeds: **3,516**

Area under CRs: **1,161,350 acres or 464,540 ha**

In the Shoolpaneshwar Wildlife Sanctuary located in the Dediapada and Nadod taluks of the Narmada district, the rights of 62 villages over an area of 44,378 ha under FRA were recognized in 2013–14. Of this, IFR titles had been issued to 3,105 households over 3,656 ha as of November 2016. The total area of the sanctuary is 60,700 ha, of which CFR now covers 67 per cent.

Brief socio-economic profile

The number of villages inside and around the periphery of the sanctuary officially totals 103. Only 75 of these villages are inhabited though, as the remaining were either submerged during the construction of the Sardar Sarovar Dam project, or vacated as a result of lack of livelihood opportunities. The approximate population of these villages is 49,000; 85 per cent

population belongs to the tribal communities of Vasavas and Tadvis.

Nearly 70 per cent households own agricultural land used for growing both subsistence and cash crops. The most popular cash crop is corn. A variety of pulses, especially *tur*, are also widely grown. However, agricultural production is insufficient to sustain the economy of the villages, and wage labour constitutes another significant source of income. Seasonal migration to the neighbouring

cities of Surat and Bardoli is common. The locals also supplement their income through the sale of NTFPs, of which *tendu* (known as *timru* in the region) leaves, and *mahua* (known as *mahuda* in the region) seeds and flowers are the most important. A majority of households own cattle, but the incomes from animal husbandry are small.

Status of forests—pre-CFR scenario

The wildlife sanctuary has a rich, diverse ecosystem harbouring both moist and dry mixed deciduous forests and forms the catchment of the Sardar Sarovar Dam. More than 600 plant species as well as 231 bird species, 21 mammal species, 19 amphibian species, 17 species of fishes and 16 species of reptiles live in the area. The sloth bear and leopard are the flagship species in the sanctuary, though the forests are also home to other wildlife such as the barking deer, four-horned antelope, Indian grey mongoose, palm civet, jungle cat, common jackal and Indian fox. There are also several streams and rivulets in the sanctuary supporting a luxuriant vegetation.

The villages in the sanctuary are heavily dependent on forests to meet their subsistence and livelihood needs. Most households are *kuccha* and made from bamboo, with a small amount of timber from the forest thrown in the construction mix. The villages get fuelwood from the forest and use it as grazing ground for their livestock. They also collect NTFPs such as *mahua* and *tendu* from the forest and sell them. The Gujarat State Forest Development Corporation is the biggest buyer of the NTFPs in the state, though local shops in the taluks also purchase small amounts.

Eco-development committees (EDCs) were constituted in the villages to reduce dependence of locals on forest resources and solicit their participation in the protection of forests and wildlife. The performance has been mixed and dependent on the sincerity and sensitivity of individual forest officials. There are three eco-tourism sites in the sanctuary, managed by the EDCs. In the Fulsar range, EDCs have good working relations with the forest department. In the Piplod range, locals complained about high-handedness of forest department officials. ‘They distributed pressure cookers, but only to select households. They laid pipelines in areas where there was no water. The forest department would choose only such people to become the presidents or secretaries who would take orders from the department and execute them without questioning,’ complained members of a few gram sabhas who viewed the functioning of EDCs as corrupt. There was a sense of distrust regarding EDCs among these villages.

Shoolpaneshwar Wildlife Sanctuary harbours a rich, diverse ecosystem and is inhabited by 75 villages dependent on the forests for their sustenance and livelihood



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CFR initiatives

In the first year, from April 2014 to June 2015, 16 villages inside the sanctuary harvested 96,319 MT of bamboo and earned Rs 185 million in revenue. The huge production of bamboo in the first year was due to its gregarious flowering—in the second year, the quantity of bamboo harvested was reduced to 34,703 MT. Acting on a suggestion by the forest department, 12 of these villages have decided to plough back 30 per cent of the profits into forest protection, while the remainder is used for community development. The other four villages are working together with another 14 villages to develop their own CFR management plans, facilitated by the local non-profit ARCH Vahini.

Though the returns from bamboo marked the entry point of these villages into CFR management, there are rules to prevent overexploitation of bamboo for economic gains. For instance, it has been mandated that only dead or dry bamboo would be removed from CFR areas. Harvesting of green bamboo is strictly prohibited and attracts fines from the gram sabhas. The cut on a bamboo culm has to be made between the first and second node above the ground level so that water is not logged in the culm, which can adversely impact the entire bamboo clump.

It has been less than three years since the recognition of CFR rights, and the villages are yet to implement their CFR management plans. The process has, however, been initiated and the communities are keen to adopt a watershed approach to manage their CFR areas.

The first step was to constitute CFRMCs which would map the CFR boundaries of their villages. Supported by ARCH Vahini, members of at least 18 villages have learnt how to use GPS. The next step was to identify and map areas of intervention in the CFR areas, based on the traditional knowledge and experience of the villagers. One of the most important activities proposed in CFR areas is protection from forest fires. The villages are carrying out stock mapping of vegetation in their CFR areas.

‘The major reason for forest fires is the burning of crop residues after harvesting. This can be checked if people dig pits around their fields before burning,’ said a leader of a CFRMC. ‘In the event of a forest fire, we can trace the field that caused it. If its owner has not taken measures to check the spread of crop fires, they will be fined by the gram sabhas,’ he continued. Fire lines inside CFR areas have also been proposed.

SWC and plantations have also been planned. The idea behind the SWC measures is to slow down the flow of streams before they flow into the river—*nala* bunding where the stream is thin and check dams where the stream expands. Trenches were also proposed along the contours and plantations would be placed below the trenches. The villages believe these measures will benefit forest vegetation tremendously. The preferred species for plantations are bamboo, *tendu*, *sitafal* and *bija* (*Pterocarpus Marsupium*).

The communities are aware that the proposed plantations would have to be protected from forest fires, grazing and damage by wildlife, especially wild



ARCH VAHINI

The remunerative return from the sale of bamboo has generated a sense of ownership and enthusiasm among gram sabhas towards management of CFR areas in Shoolpaneshwar Wildlife Sanctuary, even in villages that are yet to receive economic benefits from their CFR areas

boars and sloth bears. While the first two threats can be minimized through appropriate management strategies, there is no consensus yet on the best way to stop wildlife from damaging new plantations.

Some villages have also proposed other unique activities. For instance, the village Kanjhi has mapped lands which had been encroached upon by members of its gram sabha after 2006 and decided to convert them into plantations. Another village, Mathasar, has decided to close a part of its CFR area, where bamboo flowering had happened a couple of years earlier, to its members, to allow natural regeneration. Previously, these villages used to carry out some of their proposed CFR interventions under MGNREGA through the forest department. However, the villagers said that forest department only carried out 'showcase activities' and would not implement SWC measures deep inside the forest. The gram sabhas, therefore, decided to act on their own and start from the interior of the forest in implementing their management plans.

The leaders also tried to explain the reasons behind the failure of the forest department's plantations inside the sanctuary in recent years. 'The timing of

plantations is not right. It should ideally be done immediately after the first rains, when there is both moisture and warmth in the soil, which any new sapling needs to grow,' they opined. The villages will use this knowledge to carry out plantations in their CFR areas.

Benefits of CFR initiatives

Most CFR initiatives have not been initiated as gram sabhas are yet to receive financial assistance for the implementation of their CFR management plans. It is, therefore, too early to assess benefits. The remunerative return from sale of bamboo has generated a sense of ownership and enthusiasm among gram sabhas towards management of CFR areas; even in villages that are yet to receive economic benefits from their CFR areas. Communities have also learnt to use GPS and are using this skill to identify and map regions requiring intervention inside their CFR areas.

In four years, 31 villages have earned over Rs 28 crore from the sale of bamboo. A paper mill has struck an arrangement with some gram sabhas wherein it undertakes the task of hiring labour and paying wages, while the gram sabhas

Supported by ARCH Vahini, members of at least 18 villages have learnt how to use GPS. The next step was to identify and map areas of intervention in the CFR areas, based on the traditional knowledge and experience of the villagers



ARCH VAHINI

Table 5: Turnover from bamboo to gram sabhas in Shoolpaneshwar in 2013–17

Model	No. of villages	Quantity (MT)	Total income (in thousand rupees)	Wages (in thousand rupees)	Net income to the gram sabha (in thousand rupees)	Average net income per MT (in rupees)	Average wages per MT (in rupees)
Mill-led	18	131,508	2,56,006	1,67,238	88,767	675	1,272
Gram sabha-led	13	10,352	29,360	15,527	13,833	1,336	1,500
Total	31	141,860	2,85,367	1,82,765	1,02,590		

Source: ARCH Vahini, Gujarat

supervise the bamboo harvesting process and receive a fixed royalty of Rs 675 per metric tonne (MT). Every individual involved in the harvesting process is also paid Rs 1,275 per MT by the mill.

Thirteen gram sabhas have decided to experiment with an alternate model wherein they are in charge of the entire process. Instead of receiving a royalty, these gram sabhas negotiate the prices of bamboo with the mill every year. From Rs 2,625 per MT of bamboo in 2014, these gram sabhas had negotiated a price of Rs 2,875 in 2016 with the mill. Despite paying a higher wage of Rs 1,500 per MT to its members, the income to these gram sabhas has been Rs 1,336 per MT, more than double of what the other gram sabhas get in royalty (see *Table 5: Turnover from bamboo to gram sabhas in Shoolpaneshwar in 2013–17*).

Issues and challenges

Lack of convergence in CFR areas: Of the eighteen villages, only five have an abundance of bamboo in their CFR areas and can afford to divert some of the profits into CFR management. Some of the gram sabhas have finalized their CFR management plans and have also prepared budget estimates for carrying out different watershed activities in their CFR areas. Sagai village, for instance, has budgeted Rs 3.92 crore for interventions such as boulder gully plugs, check dams, contour trenches etc. in its CFR area of 878 hectare. Question marks, however, remain on where to source funds for these plans. The district has no convergence plan for FRA.

Power structures: Eighteen gram sabhas in the Piplod and Sagai ranges have almost finished developing roadmaps for sustainably managing their CFR areas. The forest department has, however, shown no enthusiasm to support these villages in CFR management. In a meeting of CFRMC leaders in the last week of November 2016 to discuss CFR management plans, the communities invited the divisional forest officer (DFO) to provide inputs on their plans, which the DFO refused to attend. The latest management plan of the Shoolpaneshwar wildlife sanctuary for the period 2016–26 has also made no mention of supporting gram sabhas in managing their CFR areas.

District geographical area

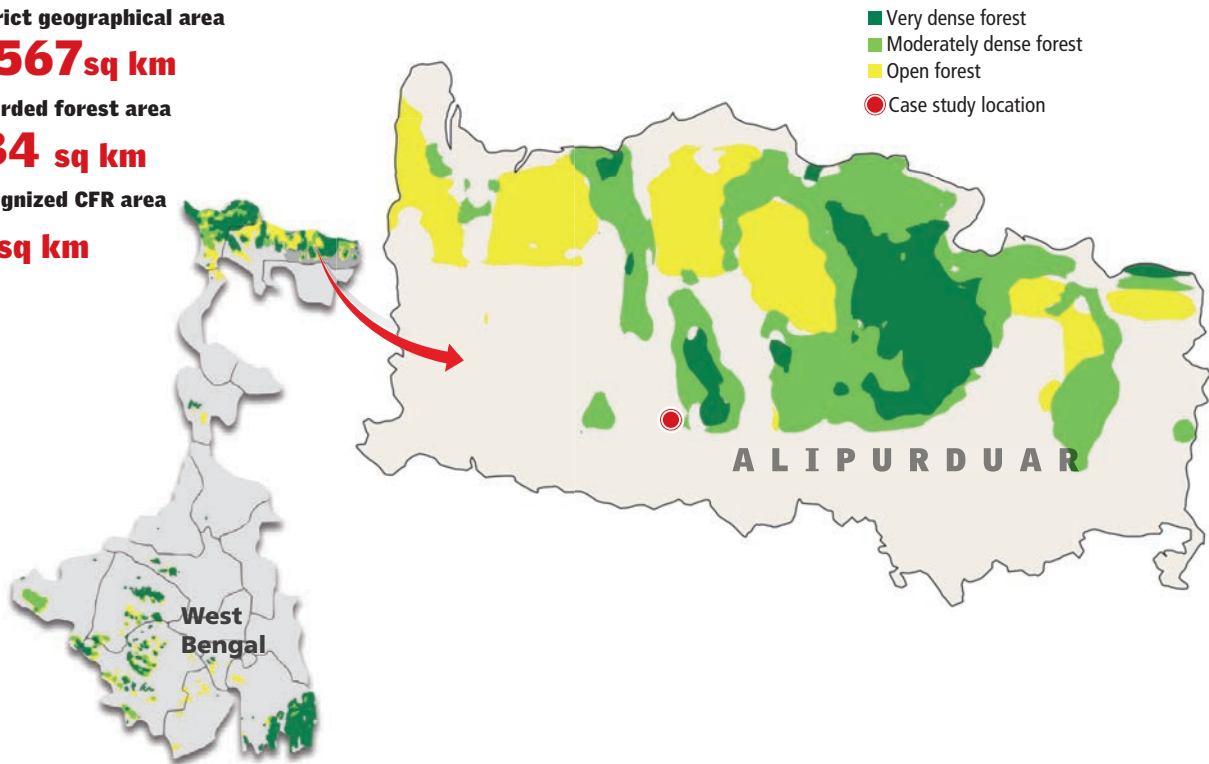
2,567 sq km

Recorded forest area

734 sq km

Recognized CFR area

0 sq km



ALIPURDUAR: 'Scientific' vs traditional

WEST BENGAL—A BRIEF OVERVIEW

Number of districts: 20

Geographical area: 88,752 sq km

Recorded forest area: 11,879 sq km

Forest cover: 18.96 per cent

INDIVIDUAL FOREST RIGHTS (IFR)

No. of title deeds: 44,444

Area under IFR: 21,014 acres or 8,442 ha

COMMUNITY FOREST RIGHTS (CRs)

No. of title deeds: 686

Area under CRs: 572 acres or 229 ha

West Bengal is considered the pioneer in introducing community participation in forest management, leading to the evolution of JFM. The state's performance in implementing FRA, however, has been quite poor. In North Bengal, a movement of forest villages to assert their traditional rights on forestland has been quite a struggle as the state refuses to recognize their CFR rights even 10 years after the Act came into force.

Brief socio-economic profile

The forest villages CSE visited are located in and around Jaldhpara national park of Coochbehar forest division comprising predominantly of the tribal community, Rabhas. Bodos and Santhals (called adibasis in the region) are also present and the villages have a varying mix of the different communities.

Traditionally shifting cultivators, these communities were 'settled' into forest villages by the government in the first decade of the 20th century. Each household in the forest villages was allotted a fixed plot of land of less than five acres area. As the population expanded, the landholdings reduced. Most of the households in the forest villages now own small plots of land on which they grow paddy, areca nut, vegetables etc.

Given its proximity to the national park, crop damage by elephants and rhinoceros is rampant, causing heavy revenue losses to the communities. As a means towards improving revenue, a few villages have started experimenting with teak plantations on small patches of their farmland (see *Box: Aspirations from IFR lands*). Landless households obtain livelihood from wage labour in forestry and other sectors. Employment in wildlife tourism operations also sustains a small percentage of the population.

Status of forests—pre-CFR scenario

Situated in the foothills of Eastern Himalayas, the semi-evergreen forests around these forest villages host grasslands, streams and sandy river banks. River Torsha flows through the park. Jaldhpara is famous for its Greater Asian one-horned rhinoceros. Other wildlife includes elephant, swamp and hog deers, boars, gaur, common macaque etc.

The pre-CFR scenario needs to be understood in the context of the history of forest villages in the region. During the British times and until the 1980s, the primary objective of forest management was to maximize timber production. Shifting cultivators were settled into forest villages by the forest department for two reasons: a) to discourage their practice of setting small forest fires for cultivation, seen as a threat to forest department's plantations and, b) to utilize their labour in forestry operations. The forest villages had to provide their labour free of cost in exchange for land allotted for cultivation—a highly unpopular system called *begar*.

Forest villages raised plantations in the jungle through a system of intercropping (also understood as *taungya*). This system called for clearing pre-marked forest coupes and replacing them with plantations of timber species. Seeds of tree species were sown in rows six feet apart and agricultural crops were planted between the rows for three–four years. When the plantations reached the age of six–seven years, two rounds of thinning would happen, allowing the stronger trees to stay standing. From the foresters' point of view, such plantations were considered to be more successful than those raised by paid labour, but they were low in values such as biodiversity and food as the forest department prioritized teak and sal instead of native timber species. The loss in biodiversity in forests also resulted in increased incidence of crop damage by wildlife in the region.

'As a kid, I would take our cattle to the forests for grazing. I have seen rhinos play with *semal* (*Bombax ceiba*) trees and eat the flowers as they dropped. But the forest department said that the thorns of the *semal* trees hurt the rhinos and cut them down. Now the rhinos come to our fields,' recalled a member of the Kurumai basti.

Forest villages in North Bengal were allotted small plots of land for cultivation in exchange for free labour they provided for plantations of the forest department



SHRUTI AGARWAL/CSE

Meanwhile, the system of *begar* continued in the post-British era too. A huge movement started against this exploitative system across all forest villages in North Bengal, leading to its abolition in 1971. The relations with forest department, however, continued to be strained.

With the enactment of the Wild Life (Protection) Act, 1972, restrictions were placed on the forest villages which depend on forests for fuelwood, grazing, fishing, medicinal plants, small timber and other NTFPs. The advent of JFM in the region under the name of forest protection committees (FPCs) in the 1990s also could not do much to improve the relationship. In most forest villages, huge allocations were made in the name of FPCs but the utilization of funds was poor. Garobasti, for instance, received Rs 27 lakh from 1998 to 2002 for community development activities but managed to spend only Rs 12 lakh. The forest villages say that the plantations raised by FPCs were not very successful, as intercropping was discontinued. Meanwhile, forest villages found their members being implicated for rhinoceros poaching and illicit timber felling—often false charges. The CFR regime provided an opportunity to the forest villages to free themselves from the high-handedness of the forest department.

CFR initiatives

Since 2008, 12 forest villages have been asserting their rights of protection and conservation of forests within the Chilapata forests of the Coochbehar forest division. As a first step, these villages constituted gram sabhas and appointed committees under Section 4(1)(e) of FRA. The gram sabhas filed CFR claims in 2008–09 and passed resolutions under Section 5 of FRA to protect and preserve forests and plantations raised by them from clear felling coupe (CFC) operations of the forest department.

In 2014–15, rotational and voluntary patrolling of forests commenced. Some gram sabhas issued cards to their members, authorizing them to patrol and protect the forests. The gram sabhas also strongly resisted the timber coupe felling operations of the forest department in the forests claimed under CFR and mandated that no felling could happen without their permission. These efforts were partially successful. Most villages managed to successfully oppose the coupe felling operations of the forest department until 2013–14. In 2014, CFC had been planned in 34 hectares of forests claimed under CFR by the village North Khairabari. The forests of the village have traditionally served as corridors for elephants and the disturbance to the existing vegetation was likely to aggravate human–elephant conflict, which had already been increasing in the region. The village compelled the forest department to seek the permission of its gram sabha and carried out a survey of the trees marked by the department for felling. As more than 1,400 trees of native species would be cut down, the gram sabha refused permission to the forest department. Similarly, in 2013, Mantharam successfully stopped CFC in 52 hectares of forests in its CFR area.

These forest villages have unique aspirations from their CFR areas. ‘If we are given CFR rights of protecting and managing forests, we will revive the biodiversity of forests. We will use our traditional system of intercropping to raise plantations of mixed species which are useful to wildlife,’ says Sunder Singh Rava of Kurumaibasti. Trees like *semal* (*Bombax ceiba*), *kadam* (*Anthocephalus*

cadamba), *shisham* (*Dalbergia sissoo*), *khair* (*Acacia catechu*), *baheda* (*Terminalia bellirica*), *jarul* (*Lagerstroemia speciosa*), *chikrasi* (*Chukrasia tabularis*), and *dumur* (*Ficus carica*) are the preferred species for plantations.

The forest villages believe that intercropping is a tested and effective way of raising successful plantations and that mixed vegetation will reduce human-wildlife conflict. They have also proposed a few reforms to their traditional system to make it a more sustainable practice:

- Intercropping should only be done in open forests instead of clearing forests as used to be the case in the past. A patch of open forest cannot be used for more than three-four years for cultivation.
- Care should be taken to ensure that upcoming or regenerating trees are not affected or damaged due to intercropping.
- Crops such as paddy, which demand more nutrients from the soil, should not be allowed in intercropping as they can adversely impact the growth of newly-planted as well as naturally-regenerating trees. Vegetables can be cultivated.
- Households with no or very little land should be allowed to do intercropping in forests.

Intercropping on forestland is a traditional skill of the Rabha community in North Bengal which they now seek to revive under the FRA



SHRUTI AGARWAL/CSE



SWARUP SAHA/ AIFM

Forest villages in North Bengal continue to face harassment from the forest department for collection of forest produce

Benefits of CFR initiatives

‘Our forests are better now. You should have seen them before 2008,’ said Mahesh Rava from Kodalbasti. The termination of coupe felling activities has allowed natural regeneration of native species, say locals. The improvement in the quality of forests has been the most significantly perceived benefit of the CFR initiative. ‘We stopped illegal removal of boulders and sand from the rivers as well,’ Mahesh Rava continued. Forest villages also claim that the incidents of rhino poaching had reduced significantly during the time these villages carried out forest patrolling.

The lack of formal CFR titles has, however, severely curtailed the ability of these forest villages to exercise their rights of protection and management of forests. The long-term benefits of CFR initiatives are, therefore, difficult to assess.

Issues and challenges

Movement losing momentum: The forest villages in Chilapata have already faced a number of challenges in the exercise of their CFR rights. Eight years after they first started the struggle for rights in forests, there is a sense of disillusionment about FRA. Some of their members are now divided in their stand, especially

with the re-introduction of JFM in 2015. CFR rights have not yet been recognized, the authority of gram sabhas is frequently challenged, livelihood benefits from forests have been negligible, and conflicts have continued. With its promise of benefits such as Indira Awas Yojana for housing, searchlights, tin sheets etc., JFM has gained popularity among these members. Other members view JFM suspiciously as a parallel institution created to undermine FRA and continue to resist the constitution of JFMCs in their villages. The heterogeneity of the population has also played a role in the breakdown of unity in some villages and a once strong movement is slowly losing momentum.

Discouragement and harassment by the forest department: Forest department officials harass and threaten villagers for carrying out voluntary patrolling of forests, stating that it is the department's job. In some villages, police cases have been filed against leaders of the gram sabhas. Kodalbasti, for instance, had put up a community forest signboard prohibiting felling in and entering into forests claimed under CFR without the gram sabha's permission. The forest department filed a case against leaders of the village for putting a board on government property in 2010–11—the case was pending before the court as of March 2017. Leaders of Mantharam village were also charged with non-bailable offences under Indian Penal Code for resisting forest department's CFC operations.

Lack of livelihood benefits from CFR: Some forest villages reported restrictions and harassment in using the Chilapata forests for fuelwood, grazing, fishing or even NTFP collection. CFR claims of many forest villages fell within Jaldhapa wildlife sanctuary, which was notified as a national park in 2012, further aggravating the situation. 'Even though we know that we have rights in forests, the situation is the same as it was before FRA. People are scared of facing charges of illicit felling or poaching if they venture into forests. Forests are now patrolled by Central forces (CRPF),' said leaders of the Salkumar forest village, a member of which was framed for poaching in November 2016. The forest villages claim that forests provide enough to build a sustainable NTFP-based livelihood model, but the restrictions on NTFP collection have discouraged many from making full use of these opportunities.

Lack of conversion into revenue villages: Forest villages have long demanded conversion into revenue villages, which is provided for in Section 3(1)(h) of FRA. 'More than anything else, it would be freedom from the forest department,' say members of these forest villages. However, this provision too, has hardly been implemented. This has further shrunk the hopes of forest villages from FRA.

District geographical area

7,654 sq km

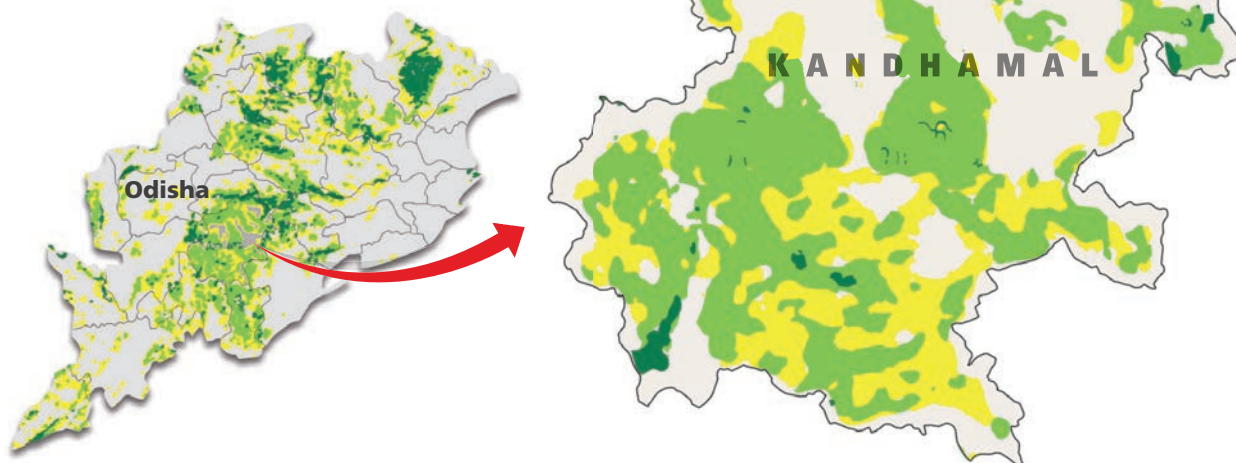
Recorded forest area

5,710 sq km

Recognized CFR area

572 sq km

- Very dense forest
- Moderately dense forest
- Open forest
- Case study location



KANDHAMAL: Women-led NTFP collectives

ODISHA—A BRIEF OVERVIEW

Number of districts: **30**

Geographical area: **155,707**

Recorded forest area: **58,136**

Forest cover: **32.34**

INDIVIDUAL FOREST RIGHTS (IFR)

No. of title deeds: **411,082**

Area under IFR: **611,833 acres or 244,733 ha**

COMMUNITY FOREST RIGHTS (CRs)

No. of title deeds: **5,891**

Area under CRs: **894,189 acres or 357,675 ha**

In 2016, CFR rights of Madhikol, located in the Kandhamal district of Odisha, were recognized over 165.43 ha of forestland. Subsequently, tribal women from 12 villages of Jamjhuri panchayat in the Phulbani block of the district have organized themselves into collectives for trading NTFPs.

Brief socio-economic profile

Madhikol is a small village of 32 households comprising entirely of the tribal Desia Kondh community. Traditionally shifting cultivators, the Desia Kondhs now practice settled agriculture.

Almost all households own small plots of land averaging 1 acre on which a variety of millets, pulses and vegetables are grown, primarily for subsistence. The small landholdings do not produce surplus for

sale, thus rendering agriculture inadequate as a source of cash income.

The village is heavily dependent on sale of NTFPs such as *mahua*, *tendu* leaves, *siali*, sal seeds, etc. for livelihood, supplemented by wage labour opportunities under MGNREGA. There is also a small trickle of emigration.

Status of forests—pre-CFR scenario

Madhikol's CFR area is surrounded by small hillocks that support dry deciduous forests of mixed vegetation. NTFPs, although diminishing, are found in abundance in its diverse forests. More than two decades ago, the bamboo in Madhikol's CFR area was leased out to J.K. Paper Limited at concessional rates by the state forest department. Bamboo is hardly available in the CFR area now. There is no significant wildlife presence in the area.

The lives and livelihoods of the tribal population in Madhikol are embedded in the forests. In addition to fuelwood for cooking, small timber for housing, and NTFPs for livelihoods, forests are also a source of food and medicinal plants. Prior to the area being earmarked as CFR, the members of the village would collect and sell NTFPs to local traders in individual capacities, though there was constant fear of the forest department. One of the most important NTFP, *tendu* leaves, was sold only to the forest department as it is a state monopoly. 'We would be encouraged by the forest department to set small fires to the *tendu* bushes before the plucking season,' said women from the village. Fires are believed to catalyze the production of fresh, green *tendu* leaves. 'If the forest department, with its mandate to protect forests, did not bother about these fires, we did not either,' the women continued.

CFR initiatives

In 2013, Madhikol was issued CFR title over an area smaller than what the village had claimed as its traditional boundary. The village filed a petition for review of the title and the corrected title over 165.43 ha was finally issued in 2016. During this time, the gram sabha constituted a committee comprising six women and six men for the protection, management and conservation of the CFR area. Rules were framed for the protection and management of the CFR, which included voluntary patrolling of forests, protection from forest fires and sustainable harvest of NTFPs.

In a significant move, the gram sabha passed a resolution to stop the practice of setting fires to *tendu* bushes in its CFR area before the plucking season. 'Fires destroy the new, upcoming plants of other important species. It is not worth it for obtaining just one forest produce,' the women of the village said.

Another major income-generating NTFP for the tribal women is *siali* leaf plates. Prior to being granted the CFR title, the women would stitch the leaves into plates and sell them to middlemen at throwaway prices of Rs 10 for 80 plates. In 2016, the village learnt about the demand for *siali* leaf plates from the German company,

Following the development of a liaison with Leaf Republic, a German green company, through the good offices of Vasundhara, a Bhubaneswar-based non-profit, the women collectives have started to obtain proper remuneration for the siali leaf plates they produce



SHRUTI AGARWAL/CSE

Leaf Republic through the Bhubaneswar-based non-profit, Vasundhara. Leaf Republic was willing to pay Rs 1 per plate to these women—an improvement of 92 per cent over the prices offered by middlemen. Facilitated by Vasundhara, tribal women from Madhikol formed a women's collective for marketing *siali* leaf plates. Together with women collectives from other villages of Jamjhuri panchayat, these women collectives earned Rs 50,000 from the export of *siali* leaf plates in 2016. 20 per cent of the revenue has been put aside as revolving funds.

Madhikol is also exercising its rights of protection of forest resources from any practice they deem destructive for its CFR area. For instance, *siali* is a climber, and often communities from neighbouring villages come to collect the bark of the tree, which is used for making ropes. In the process, they cut down the entire climber for its bark, destroying the leaves too. 'We have mandated that the leaves of *siali* have to be removed without cutting the bark or disturbing the climber. Those found violating this ruling, whether from our village or others, will be fined up to Rs 500,' the women said.

In 2016, the village also decided to experiment with the Centrally-sponsored scheme mandating minimum support price (MSP) for minor forest produce (MFP), launched in 2014 to ensure 'fair and remunerative prices to MFP

Women from the Desia Kondh Community have organized themselves into groups for the sale of NTFPs such as tamarind and are benefitting from the minimum support price scheme for minor forest produce



MADHAVI JENA/VASUNDHARA

gatherers'. Until then, tamarind trees used to be leased to private traders at nominal rates—earning less than Rs 5 per kg of produce. The scheme fixed the MSP for tamarind at Rs 22 per kg—a whopping 340 per cent increase over what private traders offered. The women collectives decided to avail it. As they mobilized, and their member households in Madhikol and other villages in the panchayat began to sell tamarind to the authorized agency under the scheme, private traders began to panic and offered even higher prices than the MSP. Women collectives from the 12 villages in the panchayat finally sold 80 quintals (8 MT) of tamarind at Rs 25.50 per kg, bringing them an income of Rs 2,04,000. Realizing the potential of collective bargaining, Madhikol's gram sabha has decided that all major NTFPs would be sold exclusively through its women collective in the future.

The gram sabha also prepared and submitted a convergence plan for both IFR and CFR lands to the district administration in 2016. In its plan, the village has asked for support to regenerate bamboo and hill broom in its CFR area. 'Bamboo shoot is a delicacy for us but we have to travel long distances to collect it. We want our forests to be abundant with bamboo once again,' say the women. The village has also sought training under MGNREGA for protecting its CFR area from fires and asked for an NTFP storage and processing shed. Asked if they were interested in planting teak or eucalyptus in their CFR area, the women replied, 'If we plant these trees in our CFR area, the forest department will stake claim on them and find a way to disrupt our community-based forest management. Besides, mushrooms and tubers cannot grow under them. We are better off without such trees.'

Benefits of CFR initiatives

One of the biggest benefits of CFR in Madhikol has been the empowerment of tribal women. Working as a collective, these women are leading the CFR initiatives in the village. 'The women are now invited to monthly panchayat meetings to provide their views on plans to revive forest-based livelihoods,' states a Vasundhara report. The NTFP collectives are now active in at least 15 of the 22 villages in the panchayat.

Most CFR initiatives are new and the bigger impacts on local ecology and livelihoods will be visible only in the years to come. A few changes have already been noticed, though. The district administration has approved the convergence plan of the gram sabha and expressed its commitment to support it. Collective bargaining power has improved the economic returns from NTFPs with private traders offering better prices for NTFPs previously procured at incredibly low rates. As a result of stopping the practice of setting fires to *tendu* bushes, the natural regeneration of other species has improved. Women, the primary gatherers of *tendu* leaves, also felt that *tendu* production had not gone down despite discontinuing the practice of forest fire. The incidence of forest fires has also abated in the village.

Issues and challenges

Madhikol is turning out to be a model CFR village offering useful lessons for CFR governance. The issues in CFR management are mostly government-related, as discussed below.



SHRUTI AGARWAL/CSE

Madhikol gram sabha has listed regeneration of bamboo and hill-broom grass in their CFR management plans

Lack of convergence on CFR lands: The focus of convergence programmes after the recognition of forest rights has been limited to IFR lands. While MGNREGA funds have been directed for improving the productivity of IFR lands, no such external support has been sanctioned for CFR lands yet. In fact, the nature of convergence on IFR lands had come under criticism for the attitude of the government to dump schemes that are not always locally appropriate. For instance, the horticulture department cut down *mahua* trees on IFR lands of some right holders in order to plant hybrid mango trees on them. Tribal women of Madhikol consider *mahua* the most important NTFP and its cultural importance to the tribal community has been well-documented. With the potential of every mature tree to generate more than Rs 30,000 per year, the loss of even a single tree can be detrimental to local livelihood. It is hoped that the district administration is sincere about its commitment to implement the convergence plan prepared by the gram sabha.

Setback for the MSP scheme in 2016 guidelines: The guidelines for MSP on MFP, revised in October 2016, have reduced the MSP for important NTFPs. For instance, the MSP for tamarind has gone down from Rs 22 to Rs 18 per kg. This can be discouraging for tribal communities who had managed to negotiate a much better deal with private traders on account of the MSP scheme. While the government can perhaps brush off the change as a small reduction, it will definitely hurt the tribals whose journey towards economic empowerment had only just begun.

3. Insights into CFR governance

The case studies, though few in number, present a panoramic view of the aspirations and capabilities of communities in managing their forest resources. Enabled by the FRA, forest-dependent communities seek and have already started to derive multiple benefits from their management practices in pockets of the country. A range of factors such as local needs, livelihood benefits, traditional skills and knowledge, nature of dependence on forests, availability of forest resources, perceived threats to forest resources etc., have influenced the variety of objectives of CFR management in the districts visited by CSE.

In Amravati, CFR has created new economic opportunities for communities whose dependence on forests has been relatively small. The Panchgaon CFR experience is a good example of communities balancing their rights and responsibilities over forest resources to achieve both livelihood and ecological security. CFR rights in Shoolpaneshwar Wildlife Sanctuary have become a tool to demonstrate the impact of watershed approach on increasing the production of locally important species. Tribal women in Kandhamal are looking at CFR as a means to ensure food and livelihood security. In North Bengal, forest villages want to use CFR to maintain and restore diversity of forests so that damage to their crops from wildlife is reduced, and are confident of using their traditional skills of intercropping to raise plantations that are useful to wildlife.

It was also observed that the CFR management plans developed are very diverse, innovatively responding to local conditions. They range from a set of rules to be followed by all members of gram sabhas for the utilization, protection and management of forests and forest resources in Kandhamal, Chandrapur and North Bengal, to detailed and technical ten-year plan in Amravati, bearing similarity to the working plans of the forest departments.

In terms of forest resources for livelihood security, communities in the villages visited are interested in annual and short-rotation crops such as bamboo, *amla*, custard apples, *mahua*, *tendu*, *siali* etc. which will provide assured returns year after year. Long rotation crops of timber species did not emerge to be the preferred choice for plantations in the CFR areas for multiple reasons (see *Box: The timber debate in CFR management*).

Only one among the three dozen villages visited in the five case study districts had undertaken large-scale teak plantations in its CFR area. In North Bengal, where communities were keen to raise plantations of mixed species, including those with timber value in their CFR areas, native species such as *semal* and *khair* were preferred to high-value species such as teak or exotic species such as eucalyptus.

CFR rights were envisaged to achieve the dual objectives of livelihood security and forest conservation. When analyzed through this lens, the case studies suggest that CFR management is moving in the right direction.

THE TIMBER DEBATE IN CFR AREAS

Communities in the study area are not viewing their forests from a commercial timber perspective and, as such, timber did not emerge to be as highly valued as NTFPs. Members of most gram sabhas were of the opinion that there was enough timber in their CFR areas to meet local needs and that the protection of forests would lead to an increase in the timber availability in their CFR areas without the need for additional plantations. Plantations of timber species assume longer rotation cycles and provide one-time return after several years of protection and management. Certain species such as *dhawda* (*Anogeissus latifolia*), mango (*Mangifera indica*) and jackfruit (*Artocarpus heterophyllus*) are both a source of timber and NTFPs or forest food. Timber from forests is also the property of the state government and has not been listed explicitly as a right under FRA yet. These could also be factors for communities to prioritize NTFPs over timber in their CFR areas.

Within the network that works on FRA, it has been argued that the right to protect, manage and conserve a forest area cannot exclude the right for collection and sale of timber. There continues to be lack of clarity on whether gram sabhas can undertake the removal and sale of dead and dry trees of timber species from their CFR areas, if it has been incorporated in their CFR management plans already. At the time of reporting, no records were available on gram sabhas undertaking the sale of timber from their CFR areas. Meanwhile, states such as Maharashtra and Madhya Pradesh have issued village forest rules (VFR) to provide legal rights to JFMCs over forest products, including timber from forest areas designated as village forests or protected forests. Forest rights groups have argued that providing communities the rights over timber in villages governed under VFR while denying them in CFR areas could lead to discontent in villages governed under FRA.

FRA recognizes the right of forest communities to collect and sell NTFPs but not timber, which is the exclusive right of the forest department. However, several species of trees in the forest are a source of both timber, and NTFPs and food; this leads to legal and administrative complications



SHRUTI AGARWAL / CSE

Is CFR governance helping forest conservation?

Forest-dependent communities in the study area have adopted a set of practices to manage their CFR areas, among which protection from forest fires and the protocols for sustainable harvest of NTFPs are common to most gram sabhas. For subsistence-based NTFPs and forest foods, especially in Odisha, the traditional methods of collection are considered sustainable. Patrolling of forests throughout the year, especially during the fire season, and creating fire lines in CFR areas are documented practices under the management plans, rules and resolutions of these gram sabhas. In Shoolpaneshwar, gram sabhas have mandated the collection of only dead and dry bamboo. In Panchgaon, the rotational felling of bamboo is practiced in a way so as to allow eight culms of bamboo per clump to be retained. The practice of setting fires to the economically lucrative *tendu* bushes to enhance *tendu* leave production has been discontinued in Kandhamal and rules have been established regarding the harvest of *siali* leaves without destroying the climber. Gram sabhas in Amravati and Chandrapur have also reserved forests within their CFR areas to be kept free from all kinds of biotic pressures to allow local biodiversity and wildlife to flourish. There are restrictions on grazing in areas where plantations have been carried out or natural regeneration of locally important species is happening. In Amravati, villages have removed invasive species *Lantana camara* to promote the growth of native species. In North Bengal, forest villages have been opposing timber coupe felling operations of the forest department, which they believe adversely affect local biodiversity and wildlife.

Members of these gram sabhas have reported an improvement in the health and density of their forests as a result of their management practices. There are fewer reported incidents of forest fires, and natural regeneration of local species is resulting in an increased abundance of all kinds of forest resources useful to communities for subsistence and livelihoods. According to local communities, wildlife not seen in years has returned to CFR areas in Amravati. A scientific assessment would be needed to evaluate if CFR management is actually sustainable and whether the rate of extraction of forest resources is less than their production or regeneration rate. However, the community management practices and perspectives are indicative of the fact that there is a concerted effort to sustainably manage and conserve forest resources.

Is CFR governance providing livelihood security?

Never before in the history of Indian forest administration had forestry emerged as a major source of livelihoods for forest-dependent communities like it has under FRA. It is also the first time that the right to benefit from economically important NTFPs, including bamboo, have been devolved to the communities. CFR rights have also ushered in an era of collective bargaining which has benefitted these communities immensely.

As the case studies have shown, gram sabhas have received more remunerative prices for custard apples (Amravati), bamboo (Shoolpaneshwar and Chandrapur), *siali* leaves and tamarind (Kandhamal) compared to the pre-CFR scenario. Bamboo, especially, fetches these gram sabhas huge economic returns with the annual turnover exceeding Rs 50 lakh for some of them. The profits from bamboo have been ploughed back to meet the development needs

ASPIRATIONS FROM IFR LANDS

This study does not focus on aspirations of people for IFR lands. However, some observations are in order. In the Shoolpaneshwar Wildlife Sanctuary, IFR title holders were confident that if support was provided for activities like land levelling and bunding, the productivity of their lands would significantly increase. Rule 16 of FRA provides for integrating forest rights holders into all government schemes, including those related to land development and productivity, basic amenities and other livelihood measures. The local population is keen to take up bamboo plantations on the slopes of their IFR lands, while hoping to improve the production of traditional food crops such as *tur* and corn.

In Kandhamal, the tribal community is leveraging convergence programmes on their IFR lands. Hence, in addition to subsistence crops of millets, pulses etc., a few households have planted mango and cashew provided by the National Horticulture Mission on their lands. Villages in Amravati district of Maharashtra are experimenting with custard and *amla* plantations on small patches of their land.

Timber species, however, did not emerge to be a preferred choice as a commercial crop for plantations on IFR lands. A probable reason for the lack of enthusiasm for timber plantations on IFR lands could be that there is little awareness and exposure provided to these communities on the prospects of plantations of popular relatively short-rotation farm-forestry or agro-forestry species such as teak, poplar and eucalyptus. In regions where such exposure is available, as in the case of North Bengal, agro-forestry has been steadily gaining popularity.

Rise of teak on IFR lands in North Bengal

The forest villages in Alipurduar district of North Bengal have been quite vocal about their opposition to teak plantations in the surrounding forests. Teak, grown as a monoculture, has replaced mixed natural forests in the region. Alipurduar district hosts two protected areas—Jaldhapa National Park and Buxa Tiger Reserve—and is home to several wildlife species such as elephants and the Asiatic one-horned rhinoceros. Forest villages around the Jaldhapa National Park have been witnessing increasing incidences of crop raiding by rhinoceros and elephants.

As a means to protect their agricultural fields from depredation by wildlife and improve revenue, almost all households of Mendhabari forest village in the Chilapata range of Jaldhapa Wildlife division have planted teak on a part of their farmlands. In fact, teak plantations on private

in some of these villages. Communities are learning to carry out competitive bidding of their NTFPs, as well as negotiating with buyers for better prices every year, resulting in economic empowerment of the communities.

In addition to revenue from NTFPs, the employment opportunities in CFR areas have also increased manifold under FRA, with evidence from Amravati and Panchgaon in our study to support the argument. In Shoolpaneshwar, too, gram sabhas are confident that the implementation of their management plan will create huge employment for its members in the CFR areas. In Kandhamal, the tribal population has demanded work under MGNREGA for fire protection and regeneration of bamboo and broom grass. The unique thing about such an employment model is that gram sabhas decide the work to be undertaken in their CFR areas—a bottom-up approach for livelihood development.

Though there is little doubt that CFR is creating economic opportunities and leading to livelihood benefits for the forest-dependent communities, it was

lands have become a trend among farmers in the last few years. Paddy fields interspersed with patches of teak trees is a common sight in the region now.

Based on the discussion with a few teak farmers from the village, it emerged that the practice has been to use one-fourth or less of the least fertile agricultural land for teak. As a general practice, 300 trees are planted on 3 *bighas* (1 acre) of land at a spacing of 12 ft x 12 ft. The final harvest is expected to happen at the end of 25 years. The locals estimate that at the time of the final harvest, only one-third of the crop would remain, i.e., 100 trees per acre. The volume of a 25 year old teak tree has been estimated at 35 cft or 1 cum. While studies suggest that the volume of 1 cum per tree can be obtained in prime quality teak only at the age of 45 years,¹ timber merchants in Alipurduar confirmed the estimation of the locals. Thus, one acre is expected to yield 100 cum in 25 years. When converted to hectares, the productivity of teak works out to 250 cum per ha in 25 years or 10 cum per hectare annually. This is an improvement over the highest productivity recorded from teak plantations in forests of India, which ranges from 0.7–7 cum per hectare annually.²



SHRUTI AGARWAL/CSE



SHRUTI AGARWAL/CSE

Teak plantations on farm lands have been gaining popularity in North Bengal

beyond the scope of this study to assess if these benefits were being shared equitably within the communities.

The success of CFR management in the villages visited needs to be attributed to the building of strong local leadership by local non-profits. The leaders were aware of rights over forest resources and the sense of ownership and responsibility towards forests was articulated clearly.

CFR governance experiences in other parts of India

CSE's study was limited to a sample number of villages, but in other parts of the country where CFR rights have been granted, communities are using a wide variety of intelligent approaches to sustainably manage their forests.

Among the first initiatives towards CFR management under the FRA framework was the development of a community-based tiger conservation plan in 2011 in the Biligiri Rangaswamy Tiger Reserve, Karnataka. The plan prepared by



AMITHA BACHCHAN/WGHE

Youth from the Kadar community have been trained by the Western Ghats Hornbill Foundation to carry out ecological monitoring of their forests

the Soliga community from 61 tribal hamlets, with the support of non-profits, included aspirations and support for three crucial aspects of CFR management—forest conservation, livelihood development and governance mechanism. The plan, however, did not see the light of the day due to the exclusionary approach of the forest department in the management of protected areas.¹

Aspiration and approaches

In the Vazhachal forest division of Kerala, youth from the particularly vulnerable tribal group (PVTG) of Kadars have been trained to carry out ecological monitoring as part of the ‘hornbill conservation programme.’ The community has mapped the distribution of the two most economically important NTFPs in their CFR areas—black dammar (*Canarium strictum*) and wild nutmeg (*Myristica fragrans*) and regulated the extraction levels of these NTFPs to ensure sustainability. The overall density of black dammar and wild nutmeg trees was found to be 5.2 per hectare and 14.2 per hectare respectively. The extraction rates, on the other hand, were found to be 0.4 per hectare and 0.57 per hectare respectively for the two species.²

In *tendu*-rich CFR areas of Gadchirolli, Gondia and Amravati in Maharashtra, more than 100 gram sabhas have passed resolutions to ban ecologically unsustainable practices of setting small fires and bush cutting to boost the production of *tendu* leaves.³ Similar to the case in Panchgaon, Mendha Lekha in Gadchirolli district, the first village in the country to receive CFR rights, has reserved 180 ha of its CFR area as ‘*Penegada*’ (forest of god).⁴ Several other villages in Gadchirolli, such as Temli, Yerandi and Lavari, have undertaken plantations of mixed species, especially bamboo, and SWC measures in their CFR areas.

Using CFR rights to ensure food security is also gaining traction. The village Dumerjor in Balangir district of Odisha has identified 97 forest foods whose availability has reduced in its CFR area. These include 13 species of tubers, 14 species of mushrooms, nine species of edible flowers, 26 species of fruits and 32 species of leafy vegetables.⁵ After the recognition of CFR rights, the communities have been sowing seeds of leafy vegetables in their CFR areas and conserving tubers towards the aforementioned objective. The CFR management plan of Bilapaka gram sabha in Mayurbhanj district of Odisha includes plantations of jackfruit species. In addition to being a source of food for the tribal communities in the region, the trees of jackfruit are considered good for water retention and enriching soil nutrients.⁶ Similar to the experience of forest villages in North Bengal, the resistance to timber coupe felling operations of the forest department has also been common in these CFR areas. In the Baigachak region of Dindori (Madhya Pradesh), the PVTG of Baigas has been protesting against such operations since 2004. Baigas are heavily dependent on forests and the community links the reduction of locally important species such as *mahul bel* (*Bauhinia vahlii*) in the forest and the drying up of water sources to coupe felling operations.⁷ In the Rajnandgaon district, the gram sabha of Sanauli did not allow the Chhattisgarh Rajya Van Vikas Nigam to carry out thinning in the forests recognized as the gram sabha's CFR area. The thinning exercise was removing native species such as *ain* (*Artocarpus hirsutus*) and *dhawda* (*Anogeissus latifolia*), which the Gond community of Sanauli viewed as useful to the local ecosystem.⁸

Other communities have been waiting for CFR title deeds for years now, despite submitting claims several years ago. Some of them have prepared management plans for the forest areas claimed under CFR. For instance, in the Banni grasslands of Gujarat, 47 Maldhari villages have claimed 2,500 sq km of the largest single stretch of grasslands in India. Traditionally pastoralists, the Maldharis have extensive understanding of the different grasses that grow in Banni and categorize grazing patches on the basis of soil types, salinity and the quality of water. The invasion of *Prosopis juliflora* in Banni, which was planted by the forest department to check the advance of the Rann,⁹ has adversely affected the distribution, abundance and productivity of different native grass species. The CFR management plans of the Maldharis include removal of this invasive species and regenerating local grasses sustaining livestock.¹⁰

As of December 2016, several tribal villages in the Daringbadi taluk of Kandhamal were in the process of filing CFR claims. These

Food security is an important objective of CFR management



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villages are looking at CFR rights as a means to stop the state forest department from undertaking plantations of teak and eucalyptus on forestlands in the name of compensatory afforestation, as is rampant in their neighbouring areas.

Some of these villages have already started benefitting from CFR initiatives. In Baigachak, for instance, villagers have reported natural regeneration of *char*, *tendu*, medicinal plants, fuelwood, fodder and mushrooms as a result of discontinuation of coupe felling activities. One of the villages, Pondi, claims that forest protection has revived the perennial flow of streams in the Kasai Kund area of its forest.¹¹

Livelihood benefits

A 2006 study by the Institute of Economic Growth, New Delhi had estimated the all-India average value of NTFP extraction to be Rs 1,672 per hectare.¹² Assuming a conservative inflation rate of 5 per cent per annum, per hectare valuation of NTFPs in 2017 works out to Rs 2,859. In the CFR potential areas alone, the estimate of the gross value of NTFPs would be over Rs 9,890 crore, which is more than the combined budgets of the MoTA and the MoEF&CC for 2017. The potential of NTFPs to transform the economy of forest dwelling communities, thus, is immense. More evidence of this potential has also emerged from villages outside the CSE's study radius.

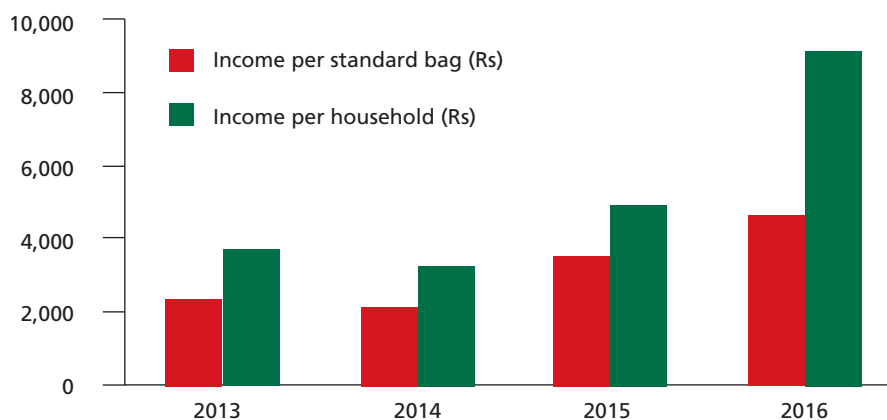
Mendha Lekha (Gadchirolli) witnessed a 43 per cent increase in the price of long bamboo in less than two years of trade, from Rs 23 per pole in 2011 to Rs 33 in 2012.¹³ The village also undertook activities like SWC and plantations under MGNREGA, which earned 80 households in the village nearly 7,523 wage days of employment in six months during 2012–13. This translates into 15 days of employment per month per household. Nine other villages from the same district, managing 7,919 hectare of forestland under CFR, earned over Rs 3.7 crore from the sale of bamboo alone in 2015–16. The details of turnover for these nine villages are provided in *Table 6: Bamboo turnover in Gadchirolli district in 2015–16*.

Table 6: Bamboo turnover in Gadchirolli district in 2015–16

Village	CFR area (hectare)	Turnover from bamboo in 2015–16 (Rs)
Bhimanpayli	1,973	40,53,960
Sonpur	347	5,73,610
Sawargaon	936	12,38,340
Dongargaon	265	8,84,640
Padyalajob	1,490	16,09,205
Mayalghat	1,068	1,17,78,670
Murkuty	440	9,13,995
Lakshmipur	662	1,43,40,535
Jhankargondi	738	20,96,080
Total	7,919	3,74,89,035

Source: Srishti, Gadchirolli, Maharashtra

Figure 2: Trend in the trade of tendu leaves by gram sabhas under CFR in Maharashtra



Source: Vidharbha Nature Conservation Society

In 2017, 140 villages in the Korchi, Dhanora and Gadchirolli taluks of Gadchirolli district organized themselves into a *Mahasangh* and carried out the auction of *tendu* leaves, fetching them Rs 17.1 crore in the first year. In Gondia district of Maharashtra, gram sabhas have been auctioning *tendu* leaves profitably under CFR since 2013. From 2013 to 2016, the turnover from *tendu* leaves exceeded Rs 3 crore and the average annual earnings for a village was a little over Rs 4 lakh. In 2013, 24 gram sabhas earned 47.92 lakh from the sale of 2,003 standard bags of *tendu* leaves, earning close to Rs 2,391 per standard bag. In 2016, 23 gram sabhas sold 3,277 standard bags for Rs 1.54 crore, fetching approximately Rs 4,710 per standard bag.¹⁴ One standard bag in this arrangement equals 1,000 bundles of 65 leaves each. Contrast this to the collection rate per standard bag paid by the Chhattisgarh State Minor Forest Produce Cooperative Federation Limited which was increased from Rs 1,500 in 2016 to Rs 1,800 in 2017, where every standard bag has 1,000 bundles of 50 leaves each.¹⁵ Even at the higher 2017 prices, the average price paid by the Chhattisgarh forest department per standard bag is almost half of that earned by the gram sabhas through the CFR arrangement.

The average household income from *tendu* leaves also increased from Rs 3,630 in 2013 to Rs 9,164 in 2016. While *tendu* prices are volatile and subject to factors like demand and production, one cannot dismiss the fact that gram sabhas are getting better at negotiating prices with traders for *tendu* leaves. *Figure 2: Trend in the trade of tendu leaves by gram sabhas under CFR in Maharashtra* illustrates the upward trend shown by the income from *tendu* leaves.

4. Government and CFR governance

State governments have played a facilitative role in supporting CFR management in a few cases. For instance, in April 2016, Odisha issued guidelines laying down directions for gram sabha-based planning of convergence programmes for the development of IFR and CFR areas. The guidelines have advised setting up district level convergence committees (DCCs) to facilitate planning and implementation of convergence programmes.¹ A number of gram sabhas, including Madhikol (Kandhamal), have already submitted and received approval for such convergence plans.

Similarly, the Maharashtra Tribal Development Department (TDD) issued a resolution in October 2016 for constituting DCCs for implementation of conservation and management plans for CFR areas. Under DCCs, the Maharashtra TDD has provided funds of Rs 56.80 lakh to 50 gram sabhas in Gondia, Gadchirolli, Nagpur, Amravati and Yavatmal.² In 2017–18, the Maharashtra government also received approval for release of Rs 12.86 crore from the MoTA under the tribal sub-plan. The proposal is to use the funds for scaling up and supporting CFR management in the state. It remains to be seen how the funds are actually going to be utilized, but the plan for fund utilization reveals a genuine intent on the part of the Maharashtra government to support sustainable management of CFRs (see *Table 7: Funding allocation for FRA implementation from tribal sub-plan for 2017–18*). As the table shows, only four other states have sought and received approval for a total of Rs 13.66 crore for implementation of FRA from MoTA under the same plan.

In 2016, in a first of its kind, the DCC for FRA in Mayurbhanj (Odisha) had also sanctioned Rs 13.5 lakh exclusively for training members of 30 CFR villages on how to implement CFR management plans in the Similipal biosphere reserve.⁴ In Maharashtra, the State Cooperative Tribal Development Corporation has provided financial support for starting and managing *tendu* leave collection and storage centres in Gadchirolli and Gondia.⁵ Such positive examples are, however, few in number and limited to states like Maharashtra and Odisha.

In Maharashtra, regulatory changes have also been brought to synergize multiple legislations on NTFP with FRA. In 2014 and 2015, the governor's office issued two notifications to deregulate bamboo and *tendu* leaves in the state, granting gram sabhas the rights of conservation and sale of these NTFPs in the state. It also issued a notification to remove the section in Indian Forest Act, 1927 which lists bamboo as a tree.⁶

There are also a few isolated examples where the forest department has played a supportive role in CFR management. In the Amravati forest division of Maharashtra, the forest department has directed MGNREGA and other funds towards CFR development. The communities also sought the department's help in removing "encroachers" from their CFR areas. In the Kandhamal forest division of Odisha, the forest department provided communities with a plan for sustainably harvesting bamboo from their CFR areas. In addition, the

Table 7: Funding allocation for FRA implementation from tribal sub-plan for 2017–18

State	Activity	Total grant approved (in Rs lakhs)
Madhya Pradesh	Training and workshop on PESA and FRA	44.35
Maharashtra	Preparation of CFR conservation and management plan in 200 villages	356
	Resource centre for micro-planning and resource management for livelihoods under PESA and FRA	340
	Creating consensus-based regulatory structures for groups of gram sabhas for sustainable NTFP management in 5,748 CFR approved villages	375
	Creating a diploma course in sustainable management of NTFPs under FRA and PESA for CFR-approved villages	215
Odisha	Implementation of Forest Rights Act	300
Gujarat	Training and awareness building on FRA	300
	Demarcation of forest land approved under FRA	200
	Post-claim support (scientific development of land, minor irrigation, drinking water, and training on scientific management of NTFPs)	500
Tripura	Study on implementation of FRA and its impact on indigenous people in Tripura	22
Total		2,652

Source: Ministry of Tribal Affairs

department has also directed funds from CAMPA for fire protection work in the CFR areas. In the Wadsa division, the Maharashtra forest department has provided technical and financial help to a number of gram sabhas in Gadchirolli in the harvest and sale of bamboo from their CFR areas.⁷ In Khammam (Andhra Pradesh), the forest department supported the gram sabha of Srisanapaali to conduct the programme when 36 bidders arrived at the first-ever bamboo auction called by the village in 2014.⁸

5. Issues and challenges

Despite a number of encouraging examples of CFR governance in the country, the implementation of CFR rights has been laggard. Though a little over 10,500 CFR title deeds have been issued in at least eight states of the country, only a handful of gram sabhas are actively exercising their CFR rights in the spirit of the Act. Even this little progress has only been possible in areas where people's movements and local non-profits are actively facilitating FRA implementation and recognition of CFR rights. The scope and coverage of such local groups and movements is limited. Most gram sabhas eligible for CFR rights are not aware of the full potential of CFR rights. In Chandrapur (Maharashtra), for instance, CFR rights of 103 gram sabhas were recognized in 2016 but these rights have been limited to the title deed.¹ There have been cases where, in the absence of title deeds, a gram sabha's efforts to protect its forests has met with resistance from the forest department. In general, the state and district administration have taken little initiatives to scale up the recognition of CFR rights or support CFR management in the country.

Some of the challenges faced by gram sabhas in the exercise of rights under FRA which we discovered during this study are discussed in the following sections.

Conflicting legislations and orders

The implementation of community forest rights and community forest resource rights in India has often been handicapped by a number of contradicting provisions in various forest governance-related legislations. Section 26 of the Indian Forest Act (IFA), enacted during the British era in 1927, prohibits (and prescribes punishment) for activities such as grazing and removal of forest produce. IFA's definition of forest produce includes both timber and non-timber forest produce. FRA, on the other hand, legitimizes the use of forests for grazing and collection and sale of NTFPs. Another instance of conflict between the two legislations is the listing of bamboo, canes, stumps and brush—Section 2(7) of IFA lists them under the category of 'tree', whereas FRA defines them as minor forest produce (or NTFP). Bamboo has only recently (in 2017) been removed from the definition of 'tree' in IFA. However, the confusion and debate over rights over bamboo grown in forest areas continue even after the IFA amendment. Section 41 of IFA empowers state governments to make rules to regulate transit of forest produce. FRA Amendment Rules of 2012, on the other hand, provide gram sabhas the authority to issue the transit permit to NTFPs. In practice, however, forest departments have mostly retained the authority to issue the transit permit to gram sabhas for transportation of NTFPs such as bamboo and *tendu* leaves outside CFR areas.

The Wild Life (Protection) Act (WLPA) of 1972 imposed stricter restrictions on communities' rights of access and use of forests inside protected areas (PAs). Though Section 2(d) of FRA includes national parks and wildlife sanctuaries in the definition of forestland, the recognition of CFR rights in these protected areas has been quite poor. CFR claims made inside PAs are mostly pending and the restrictions on access to forests have continued, as seen in North Bengal.



KUMAR SAMBHAV SHRIVASTAVA/ CSE

Though FRA vests the authority of issuing transit permits in the gram sabhas, forest departments have, in practice, retained this authority, even in CFR areas

Reports of charges being filed against communities for carrying out activities termed illegal in the WLPA are a regular occurrence.²

National Tiger Conservation Authority issued an order in March 2017 denying forest rights in critical tiger habitats. The order has already had implications in the CFR recognition process in two tiger reserves, where the rights had been approved in principle by the DLC but have been put on hold now.³ Such 'temporary' orders, issued arbitrarily by the government, also impact the CFR recognition and management process.

Collection and trade of NTFPs are also governed by different legislations in every state. For instance, state governments have been empowered to nationalize certain NTFPs, providing them the monopoly over the trade of such forest produce. On the other hand, Section 3(1)(c) of FRA empowers gram sabhas to collect, use and sell NTFPs. These contradictory legal provisions have also led to conflicts. In Kalahandi district of Odisha, the transaction of gram sabhas with a private trader for *tendu* leaves was termed illegal and opposed by the forest department before it gave in to the six month-long protests of these villages.⁴ In Madhya Pradesh, the forest department confiscated *tendu* leaves from tribal women who were selling them to buyers other than the forest department. In both these states, *tendu* leaves have been nationalized.⁵

Multiple committees on the same parcel of forestland

In North Bengal, forestlands claimed as CFR in 2009–10 by forest villages have been brought under JFM in 2015–16. In Shoolpaneshwar, EDCs are carrying out the protection and management of CFR areas in some villages of the Fulsar range. In Baigachak, the title deeds for community forest rights have been issued to VSSs instead of the gram sabhas. In Odisha, a proposal was floated in 2017 to convert VSSs into CFRMCs, triggering resistance from forest rights activists.⁶

MoTA has clarified that it does not consider desirable that existing JFM areas or JFMCs become automatic CFR areas or CFRMCs, as their roles and mandates are different. Within the FRA network, opinions on the subject differ. One opinion is that as long as a gram sabha is at the helm of affairs, these committees can work in a collaborative manner as different schemes bring different powers to a community.⁷ Another opinion is that the existence of parallel institutions in the same village and the differential treatment in terms of technical and financial support to the VSSs or JFMCs over its CFRMCs will divide the villages, as has happened in North Bengal.

The larger questions, however, remain unresolved. Should the JFM committees automatically get dissolved when the village's CFR rights are recognized? Or should the gram sabhas decide the fate of these committees and the nature and extent of collaboration with them after CFR recognition?

Lack of convergence in CFR areas

In Amravati (Maharashtra) and Kandhamal (Odisha), CFR-approved villages are benefitting from the constitution of DCCs which have directed or agreed to direct funds for the development of CFR areas based on the needs articulated by the gram sabhas. These include funds for training communities and building the capacities of committees to prepare and implement CFR management plans and working capital to set up collection and storage centres for NTFPs. This has not been the situation in Chandrapur or Narmada though, and several other districts where CFR rights have been recognized.

An official memorandum issued by MoTA on 23 April 2015 states that 'the state government shall make available through its departments, funds available under the tribal sub-plan, MGNREGA, funds for forestry available with the gram panchayat, and funds under CAMPA to the committee at the gram sabha constituted under Rule 4(1)(e) for development of CFR.' In 2017–18, five states have received approval for funds under tribal sub-plan for the implementation of FRA and CFR. MGNREGA funds have been used in some cases, but the scope is huge and remains largely unexplored.

Fencing off CFR areas

In most of our interactions, communities expressed the need to protect their CFR areas from neighbouring villages. This has sometimes led to fencing off of CFR areas with the right-holding village retaining the authority to deny or regulate the use of its forest resources by other villages. For instance, a CFR-approved village in Rajnandgaon district of Chhattisgarh had erected a wired fence all around its CFR area to keep out cattle from neighbouring villages. This

can lead to tension between villages, especially if these neighbouring villages have been traditionally dependent on CFR areas of the right-holding villages for grazing and do not have their own CFRs. This was also recorded in the Paratwada range of Amravati, Maharashtra.

Change of the forest department's role and subsequent conflicts

Except CFR-approved villages in Amravati, none of the other villages CSE visited were working with the forest department on implementation of the CFR management plans. The forest officials CSE interacted with expressed discontent about the lack of consultations with the department in the development of CFR management plans. In their opinion, this is only a recipe for conflict. Interestingly, none of the forest officials expressed doubts about the capacities of the communities in managing CFR areas. The concerns were related to lack of 'scientific' approach in CFR management and the sustainability of forest resources in CFR areas. It emerged that forest officials were unaware of the provisions related to sustainable harvest protocols and protection of forests in the CFR management plans of villages. The assumption was that these plans only pertained to the harvest of forest products for livelihood purposes. Some officials also highlighted that the IFA 1927 and FRA 2006 had several contradicting provisions which were causing conflicts and that they had no guidelines or instructions on their role in CFR management. Conflicts have also been reported when the forest departments tried to implement their working plans in forestlands claimed or recognized as CFR areas. More recently, cases

Forest-dwelling communities and the forest department have often come in conflict when the forest department has tried to implement its Working Plan in CFR areas



SAVANTAN BERAJ / CSE

of forest diversion for compensatory afforestation on lands claimed under CFR are also emerging, leading to further conflicts between communities and the department.⁸

Beyond the integration of CFR management plans into the working or management plans of the forest department, FRA does not mandate the involvement of the forest department in the CFR management process. Forest rights groups and communities have been skeptical about the involvement of the forest department in the process (and dictating the terms of CFR management), thereby sabotaging the democratic governance of forests envisaged in FRA. In the Shoolpaneshwar wildlife sanctuary, for instance, the forest department has mandated that the gram sabhas in the Fulsar range utilize 30 per cent of the revenue from bamboo for forest protection work. In some other CFR-approved villages of the sanctuary, gram sabhas have collectively decided to utilize the profits from bamboo for development work in their villages. On the one hand, the forest department has complained about lack of consultations between communities and the department, and on the other hand, the department also wants to hold these consultations on its terms. In Shoolpaneshwar, forest officials turned down the invitation of gram sabhas to attend their meeting to discuss the CFR management plans and reportedly talked about calling for a training of communities to develop these plans. This power politics does not help improve the ground situation.

The concerns of forest rights groups are, therefore, not entirely unfounded, particularly in the light of widespread failure of JFMs, where forest department retained the decision-making authority. There are also doubts about the

CONSERVATION, MANAGEMENT AND SUSTAINABLE USE OF CFRs

MoEF&CC has prepared draft guidelines for 'conservation, management and sustainable use of community forest resources' in September 2016. Spread over six chapters, the guidelines aim to facilitate gram sabhas in the development and implementation of their CFR management plans, resource planning and monitoring, financial aspects and settlement of disputes.

Key provisions of the draft guidelines relevant to CFR management:

- **Constitution of CFRMC:** The gram sabha shall constitute a CFRMC under Rule 4(1)(e) of FRA to carry out functions on behalf of and as assigned by the gram sabha.
- **Role of CFRMC:** It will be the responsibility of the CFRMC to prepare a five-year conservation and management plan for CFRs. The plan should fulfil the objectives of protecting forests, wildlife, biodiversity, catchment areas of streams, water bodies, ecologically sensitive areas and habitat conditions of forest dwelling communities. The plan is required to be placed before the gram sabha for approval. The CFRMC will implement the plan subject to monitoring and control of the gram sabha. The CFRMC should submit an annual report on completion of the financial year to the gram sabha regarding the development in CFRs.
- **CFR management plan:** The plan will be based on documentation of community forest resources, tenurial rights, and relevant socio-economic and traditional practices. CFRMC is required to carry out the documentation, which would include 'aspects such as assessment of current status, regeneration capacity, pressure of demands on the resources, sustainable harvest potential of various forest products including minor forest products, potential of bridging deficit of adequate regeneration of forest produce etc.' The guidelines have also provided annexures for mapping demand, pressure and threats to forest resources, resource use practices and listing of potential and opportunities for development of forest resources in CFRs. The CFRMC will compile annual demand of various forest produce.
- **Role of forest department:** The forest department will be responsible for providing the CFRMC with necessary technical and documentary material for documentation and planning. Once the plan is ready, the gram sabha is required to forward it

ecological sustainability of certain management practices of the forest department. For instance, communities have often opposed coupe felling of timber by the department as the trees cut down are a source of NTFPs and linked to the local forest ecology in a number of ways. In Kandhamal, the gram sabhas have discontinued the practice of setting small fires to the forest for maximizing the production of tendu leaves—a practice that was encouraged by the forest department.

Conflicting guidelines on CFR management

FRA has clearly laid down provisions for the recognition of CFR rights. However, it is relatively silent on the post-recognition process. MoTA has issued a number of circulars to provide clarity on the mechanism for CFR governance; the most recent being the directive issued on 23 April 2015 which states that 'each gram sabha shall be free to develop its own format for conservation and management of the CFR which its members can understand with ease and which may also comprise of rules and regulations governing forest access, use and conservation.' On the other hand, MoTA has also outsourced the task of developing comprehensive guidelines for conservation, management and sustainable use of CFRs to Ministry of Environment, Forest & Climate Change (MoEF&CC). The draft guidelines developed by MoEF&CC require communities to collect and include reams of data pertaining to resource availability and use etc. in their CFR management plans. Such densely technical guidelines will make the entire process of preparing CFR management plans burdensome for communities in the absence of appropriate technical and financial support (see *Box: Conservation, management and sustainable use of CFRs*).

to the forest department for inputs and feedback. The concerned officer has to revert with suggestions within four weeks of receipt of the plan. The gram sabha should consider the suggestions. If the suggestions are not received within the stipulated time frame, the gram sabha can go ahead with finalizing the plan.

- **Role of government:** The conservation and management plan approved by the gram sabha will be incorporated by the forest department in its working plan and also by other line departments into the planning and resource allocation for these areas. Funds under tribal sub-plan, MGNREGA, CAMPA, and those available for forestry through the gram panchayat, will be made available to CFRMC for the development of the CFR. The state government will play an important role in the capacity building of gram sabhas and CFRMCs to implement CFR management plans and provide them with adequate support and technical knowhow for forest protection, multiple use forestry, marketing etc.

Will the draft guidelines support CFR management?

The draft guidelines raise important concerns. CFRMCs are expected to collect a lot of data and document practices, threats, potential etc. related to resource use in CFR areas. Most CFRMCs do not have the required expertise and might not be able to carry out the documentation to the extent desired in the guidelines due to time and resource constraints. For instance, compiling annual demand of various forest produce is itself a big research topic. The product, if developed at all after ample capacity building and facilitation, is most likely to be incomprehensible to a majority of the villagers. This could also cause CFR management to be dominated by a few members who understand the plan and subsequently translate into elite capture of benefits. On the other hand, not much clarity has been achieved regarding the roles of other government departments, especially the forest department, in supporting the communities in their CFR governance process. The draft guidelines, thus, require very technical CFR plans and are likely to make CFR management an onerous responsibility for some gram sabhas. This also raises the concern that the forest departments may use this shortcoming to prove that gram sabhas are incapable of managing their CFR areas. The examples of CFM in countries such as Bolivia and Philippines bear testimony to the fact that the requirement of technically obscure management plans for harvesting forest resources leads to the gradual demise of CFM. India would fall into the same trap by adopting similar guidelines.

NTFP transporting, marketing constraints and challenges

Once new vistas became available under FRA, villagers have to learn to grapple with the complexities of the trade. Right now, their capacity to influence market actors and vested interests is limited. For instance, some CFR villages (such as Padyaljog in Maharashtra) had to relinquish the rights to harvest and sell bamboo to paper mills after initially demanding to stop bamboo felling by the same mills. It was reported that paper mills had put these villages under pressure to withdraw their demands.⁹

There is also reluctance on part of the forest departments to issue transit permits (TP) for the transportation of bamboo outside CFR areas. In November 2017, the DFO of Kalahandi refused to issue a transit permit for movement of bamboo to the village Pipadi, stating that the CFR title deed specified carrying NTFPs by head loads and bicycles only.¹⁰

In a concept note for the development of the bamboo sector in Gujarat, the state forest department noted that 'it may not be necessary or desirable to authorize the gram sabha to issue transit passes. Such acts may send a signal that may favour common property resource (CPR) syndrome over forestland, causing irreversible damage to the ecology of the region.'¹¹ Other gram sabhas in Maharashtra continue to face challenges in the bamboo trade even after receiving transit passes. Some of them wrote letters to government officials seeking guidance on bamboo trade but got no response. This has led to exploitation of gram sabhas by contractors and their cartels on a number of occasions.¹²

It has also been a challenge for various gram sabhas to deal with procedural hurdles and vested interests in trading other lucrative NTFPs. The sale of *tendu* leaves by gram sabhas in the Gondia district (Maharashtra) came under scanner in March 2017 when the state government stayed the auction of *tendu* leaves by 38 gram sabhas on the grounds that these gram sabhas had not followed the due process of carrying out e-tendering of the leaves. These gram sabhas had instead carried out advance sales of leaves to one trader who offered a good price for their produce. It took a series of representations to the government to get the stay revoked.¹³

6. Lessons from similar experiences

Community Forest Management (CFM) is not new to India. There are a number of self-initiated, government-sponsored or externally-supported CFM initiatives across the country. Several of them, however, collapsed or became defunct despite their initial success. It is commonly agreed upon that a single CFM model cannot be applicable to the entire country, as the needs and aspirations of communities and ecology are extremely site-specific.

As Indian forest management moves towards a new CFM framework under FRA, it will be important to gain insights and learn from the various CFM models that India and other countries have implemented with varying degrees of success. A few important ones are discussed as follows.

Van panchayats in Uttarakhand

These were among the first formal CFM institutions in the country wherein communities managed legally demarcated village forests. Started in 1931, van panchayats manage nearly 5,450 sq km of forestland in Uttarakhand today.¹ A van panchayat used to have all the powers of forest officers and was in full control of the use of its income from all forest products, except resin. However, the autonomy of van panchayats in decision-making and benefits-entitlement suffered due to the periodic changes in the rules relating to them. Some van panchayats also suffered from imposition of the JFM scheme in the state. Despite these challenges, a large number of Uttarakhand's van panchayats have survived till today and their forests have continued to meet fuelwood and fodder needs of communities.²

Joint forest management in India

Launched in the 1990s, JFM was an initiative to solicit large-scale participation of communities in forest management. By 2010, more than 24 million hectare of forestland was brought under JFM. JFM programmes generated mixed outcomes. Positive results were increased availability of NTFPs and fuelwood and improved forest protection.³ JFM also provided much needed institutional support to some self-initiated CFM initiatives.⁴

JFM had several limitations though. Decisions were invariably controlled by the forest department. In many cases, the focus on planting trees did not meet the fuelwood or NTFP augmentation goals. The forest department was reluctant in sharing the promised rights of forest products, especially from the major forest produce, i.e., timber. Often, JFM programmes were funding-driven, bringing the protection efforts of the villagers to a halt when the funding stopped.

The lack of tenurial security and poor institution building was also the cause of the ultimate failure of JFM programmes that had started successfully, as had happened in Harda forest division (Madhya Pradesh)⁵ and Satara Tukum (Maharashtra).⁶



Nepal's community forestry programme is hailed for its positive impact on forests and biodiversity, local livelihood, improvement in availability of forest products and strengthening the process of decentralized decision-making

Tree growers' cooperatives in India

Tree Growers' Cooperative Societies (TGCSs) was a cooperative model created to establish and manage tree plantations on an average of 40 hectare of degraded land. Under the TGCS model, rural cooperatives were formed and provided with long-term leases valid for 15–25 years on state-owned common lands (officially 'revenue wasteland') for developing tree plantations and increasing fodder production. The cooperatives received financial and technical support from the National Tree Growers Cooperative Federation for restoring these lands.

The impact of TGCSs on local livelihoods was only marginal at various places as small parcels of leased land could not generate long-term substantial livelihoods.⁷ The institutional framework under which TGCSs operated has been documented to have become less democratic with time, where rules of access and use, and processes like auctioning of forest produce from the plantation areas, often exclude the poor. However, land restoration efforts of TGCSs have ensured sustained supply of tree fodder and fuelwood from the plantation areas, and groundwater recharge. This perhaps explains why most TGCSs have not become defunct even today despite the fact that it has been more than a decade since external support to TGCSs was withdrawn. Several TGCSs in Gujarat and Rajasthan are keen to renew their leases for the allotted land and are also leveraging MGNREGA funds to improve the productivity of their lands.⁸ However, TGCSs in Rajasthan are facing various challenges, including threats from illegal stone mining and encroachment pressures on allotted lands, and are struggling to fight these forces in the absence of external support, particularly from the government.⁹

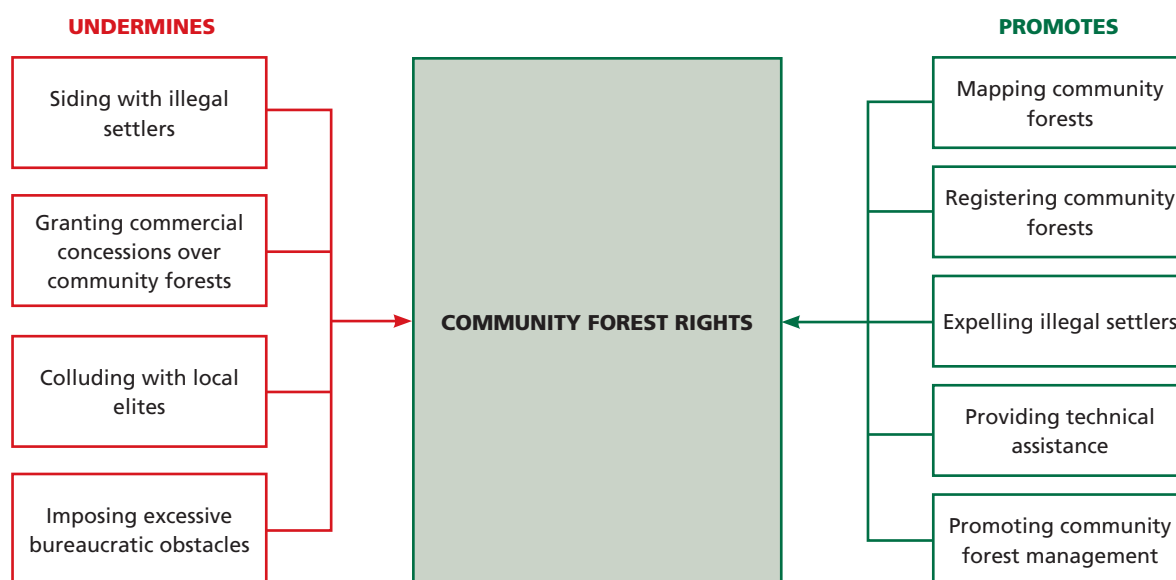
Community forestry in Nepal

In the 1980s, the government of Nepal adopted a decentralized approach to the management of forests after realizing the failures of a protectionist approach and centralized government forest programmes. After piloting community forestry in the 1980s, the Forest Act of 1993 introduced community forests (CFs), which comprise 30 per cent (~1.8 million hectare) of Nepal's total forest area; managed by 19,361 community forest user groups (CFUGs) benefiting 2.4 million households.¹⁰ Local communities are considered to be forest managers, not merely labourers and consumers. Foresters are considered advisors or facilitators rather than administrators and regulators.

Nepal's community forestry programme is hailed for its positive impact on forests and biodiversity, local livelihood, improvement in availability of forest products, and strengthening the process of decentralized decision-making. CFUGs have the rights to utilize forest products and fix the price for their sale. An average CFUG is estimated to earn US \$2,900 per year from the sale of forest products and generate 640 days of employment per year.¹¹ A study conducted in 47 districts covering 137 CFUGs reported improved forest conditions in 86 per cent of CFUGs since their handover to the communities.¹² CFUGs have also formed a nation-wide network, Federation of Community Forestry Users, Nepal that has played a key role in forest policy debates as well as capacity-building and awareness-raising of forest user groups.

Nevertheless, this rather successful model has also been criticized for elite capture of benefits, financial irregularities and its inability to significantly contribute to livelihoods due to its conservation-oriented approach. In 2014, the government of Nepal developed the *Community Forestry Development Guidelines* to address some of these issues. The *Guidelines* instruct categorization of CFUG members into at least three categories based on wealth to identify and prioritize poor

Figure 3: Government action that can promote and undermine CFR



Source: World Resources Institute, 2014

households for livelihood development activities. At least 50 per cent members of the executive committee must be women, while the remaining 50 per cent should include proportionate representation of excluded groups and poor households. For promoting transparent mobilization of CFUG funds, the *Guidelines* direct each executive committee to audit their annual income and expenses and to share the report during the CFUG general assembly, and with the DFO.¹³

A recent study showed that community forest has significantly higher positive impact on equity in benefit-sharing at the household level than that of government-managed forest commons.¹⁴ While this is encouraging, new challenges are also emerging. The legal autonomy of CFUGs is being curtailed by a series of administrative orders, circulars, and other decisions. For instance, CFUGs are required to carry out initial environmental examination (IEE) and environmental impact assessment (EIA) to ensure sustainable harvesting of forest products. Similarly, the government, in an attempt to introduce the principles of scientific forest management, mandated that the CFUGs develop a forest inventory in preparing an operational plan. Many CFUGs are not able to review their management plans due to lack of resources and technical support and impractical standards.¹⁵ In some countries, such administrative requirements have led to the slow degeneration of CFM.

Other global examples

In Bolivia and Philippines, new forest policies have led to devolution of forest management rights to local communities. However, the commercial use of forest resources are subject to the approval of the forest administration or require the application of annual resource use permits. Communities in Bolivia are finding it difficult to follow the complex regulatory framework of developing management and operating plans without technical assistance from external sources, which often means high costs, unless subsidized by NGOs. The government does not support community forest management initiatives due to lack of staff and funding.¹⁶ China's national policy on the ownership and management of forestland had changed four times in the quarter-century before 1978, and forest taxes rose from negligible to 35–60 per cent of timber revenues, creating disincentives for communities to participate in forest management. In Indonesia, the rapid pace of decentralization of forest governance without building capacities and support increased local conflicts and institutional complexities.¹⁷

These global examples suggest that whenever the flow of benefits like rights over forest resources and their transparent and equitable sharing, availability of forest products for subsistence needs or economic gains, and other intangibles suffer for reasons such as conflicts with forest department, lack of tenurial security, burdensome regulations, underdeveloped markets, external threats or inadequate support and capacity of local institutions, CFM falls short of being a success. While FRA does address some of these concerns through the provision of tenurial and management rights and greater devolution of decision-making powers to communities, a lot will still need to be done to scale up CFR governance in India for sustainable and equitable forest management.

7. Discussion and recommendations

FRA provides for a rights-based, democratic and decentralized governance of forests like no other legislation or policy in India. The introduction of CFR rights is the most comprehensive forest tenure reform in the country ever. Our overall assessment is that CFR is revitalizing the forest economy to create new employment and economic opportunities for forest-dwelling communities like never before. Communities are using diverse approaches to enhance their food and livelihood opportunities from forests. This is not happening by unsustainable extraction from the forests. Instead, communities are adopting a number of measures to maintain the ecological sustainability of their forests. The impact of community governance of forests on the livelihoods of forest dwelling people has been positive in most cases, and transformational in others. In several resource-rich villages, the CFR regime has enabled local self-governance too. While it is too early to comment on the changes in the health of forests in CFR areas, community perception in most CFR areas has been that the quality of forests has improved as a result of community efforts.

CFR governance experiences suggest that a new future of democratic forest governance is emerging and create confidence in the ability of communities to manage and conserve their forests if empowered to do so and offered support in doing so. The potential of CFR to generate a sustainable business model based on forest resources, create employment, alleviate poverty, and even reverse the trend of migration from forests is immense. However, to achieve this, CFR rights of the communities will have to be recognized. Currently, only a little more than 1.1 million hectares of forestland has been recognized as CFR. The potential is many times more.

CFR governance will be successful only if communities are able to derive benefits from managing their CFR areas in a sustained and uninterrupted manner. In the existing scheme of things, India does not have the most enabling environment to support this empowering process. Most communities need initial handholding to develop and implement their CFR plans, and are, therefore, dependent on external agencies. The process has been led and supported by civil society groups and, in general, there has been little support from the government for the post-rights process in CFR areas. Forest departments have largely failed in their role as facilitators. As a matter of fact, there have been instances where the role of the authorities can only be described as obstructive. This situation is not helped by the fact that a number of contradicting forest policies and legislations have not yet been synergized with FRA. MoEF&CC has been indifferent, reasoning that the implementation of the Act is the concern of MoTA. State Tribal Welfare departments also need to do more.

A CFR regime is historically inevitable and a significant chunk of India's forestlands should be brought under community governance in the years to come. It is of paramount importance that communities are supported and capacitated to manage their CFR areas and the benefits from them. CFR governance will also require the different stakeholders—communities, forest

department, and local governments—to gain experience in their new roles. At the same time, safeguards need to be in place for sustainable forest management and equitable benefit-sharing in CFR governance so that the dual objectives of FRA—livelihood security and forest conservation—can be achieved.

The big question is whether mere enactment of FRA and the recognition of CFR rights over forestland will be enough to enable successful community governance of forests. Learning from the previous experiences of CFM and the existing CFR management experiences, it is clear that a lot will need to be done to create an enabling environment for CFR governance in India, where both forest dwelling communities and forests prosper. The willingness, commitment and action of government to support gram sabhas in governing their CFR areas will play a crucial role in achieving the multiple objectives of FRA.

In order to improve and scale up CFR governance in India, CSE makes the following recommendations.

Amend Indian Forest Act of 1927 to align it with FRA

It is of utmost importance that IFA and the corresponding state forest acts are amended to synergize their provisions with FRA. MoEF&CC has already constituted a committee in September 2016 to review the IFA. One of the important objectives of this committee must be to address the contradicting provisions between IFA and FRA. Examples of some changes required are:

- Now that bamboo has been removed from the category of ‘tree’ in IFA, communities should be encouraged to sustainably grow and harvest bamboo in forest areas. The confusion over transit and trade of bamboo from forest areas should be resolved.
- Section 26 of the Act, which lists the ‘activities prohibited’ in reserved forests, should be amended to delete activities such as ‘pastures cattle’ in sub-section (d) or ‘removes any forest produce’ in sub-section (g) because they are permissible under FRA.

Review state legislations and policies governing NTFP trade to synergize with NTFP rights under FRA

Multiple legislations govern NTFP trade and transit in each state, causing conflicts with rights over NTFPs recognized under FRA. It should be mandated that every state review its policy and legislation on NTFPs and align them with FRA within a stipulated time-frame. For instance, states should follow the example of Maharashtra and deregularize economically important NTFPs such as bamboo and tendu leaves and provide a support mechanism to facilitate private NTFP trade by communities.

Develop guidelines for the role of government departments in CFR areas

MoTA should develop guidelines detailing the kind of technical, financial, protectionary and facilitative roles that government agencies at state, district and panchayat levels should provide to support CFR governance processes without undermining the autonomy and authority of gram sabhas. The guidelines should lay down the dos and don’ts for government agencies in this regard. Forest departments will have to take on the role of a facilitator instead

of a regulator in CFR areas. There will be instances where gram sabhas would require the support of the forest department to book offenders, poachers and timber mafia, and to auction NTFPs etc., hence the role of forest departments in CFR areas would need to be demand-based and more adaptive. The guidelines should also provide a mechanism to enforce these rules.

Develop a new framework for CFR governance

The draft guidelines on CFR management developed by MoEF&CC should be withdrawn as their adverse effects on the CFR process outweigh their benefits. Instead, MoTA should develop a framework to ensure ecological sustainability, financial transparency and social equity in CFR governance. As a number of CFR management initiatives have already taken off, the framework should be informed and guided by these experiences, and finalized after consultation with different stakeholders. The framework could include simple yet important indicators such as forest cover and species diversity for monitoring ecological changes. Similarly, some simple indicators for equity are representation of women and marginalized households in the constitution of CFRMCs, special provisions for these groups in CFR management rules and plans, and benefits accrued to them etc. Financial transparency can also be ensured through periodic audits monitored by the DCCs or any other body appointed by gram sabhas. In any case, the monitoring mechanism should be transparent and carried out in consultation with the CFRMCs.

Ensure convergence of resources and programmes for CFR development

The constitution of DCCs consisting of representatives from different line departments should be made mandatory once CFR rights are recognized in any village of a district. CFR management should be integrated into existing government's programmes like MGNREGA, National Bamboo Mission, National Horticulture Mission etc. so that the flow of funds to gram sabhas becomes an institutionalized practice. Gram sabhas should be empowered to mobilize these funds according to their plans. It will also be important to ensure that these funds do not have too many strings attached to them and their micro-management by government should be eschewed.

Build capacity and leadership of CFRMCs

Any CFR management initiative is unlikely to be successful if the social base for collective action is not strong. Strong local institutions are important to resolve internal contradictions regarding transparency and accountability as well as external pressures such as overuse of forest resources by other villages and exploitative market forces. It is absolutely imperative for district administrations to prepare a programme for building the capacities and leadership of gram sabhas, especially the CFRMCs, to manage forest areas soon after their rights have been recognized. These training and capacity building programmes should be intensive and designed towards making gram sabhas aware of their rights and responsibilities in CFR areas, and provide them information on the best methods to tap the potential of these areas to improve their livelihoods as well as health of the forests. Separate funds should be channelized towards such exercises. India will also benefit from a national network of leaders from CFR-holding villages working as resource people for capacity-building of gram sabhas across the country.

Build and strengthen NTFP-based enterprises in CFR areas

Grant of ownership and management rights over NTFPs to villagers will go a long way in improving the economic well-being of forest-dependent communities in CFR areas. The full potential of the rights over NTFPs can only be realized if gram sabhas are able to undertake storage, processing and value addition of these NTFPs. This requires hand-holding in the form of training communities, working capital, market linkages etc. to make the model self-sustaining in the long run. Already, a number of initiatives are underway towards the development of NTFP-based enterprises in the country. For instance, MoTA's guidelines for MSP on NTFP, which also lay down provisions for storage, processing and value addition of NTFPs as well as marketing support, need to be implemented on a mission mode in CFR areas. E-tendering and other such ways to modify procedural requirements for trading economically important NTFPs to accommodate local capacities need to be discussed and implemented.

Resolve the timber debate in CFR areas

CSE believes that timber cannot be the property of forest departments alone inside formally recognized CFR areas and recommends that gram sabhas be allowed to sustainably harvest and sell timber in their CFR areas, if specified in their management plan. However, checks and balances need to be put in place to ensure that illegal timber exploitation does not happen inside CFR areas, as the capacities of communities to deal with strong timber mafia in the face of commercialization remain untested at this point of time.

Develop a multi-tier FRA monitoring and information system

Currently, monitoring of FRA implementation is done mechanically by MoTA and this provides little information on such a large-scale countrywide programme. To ensure successful implementation, disseminating cross-learning and monitoring the impact of FRA initiatives on local livelihoods and forest health, a rigorous well-designed web-based information system is needed. Various ecological, economic and social indicators should be defined and included in the periodic assessment of FRA implementation and achievements recorded at local, state and national levels.

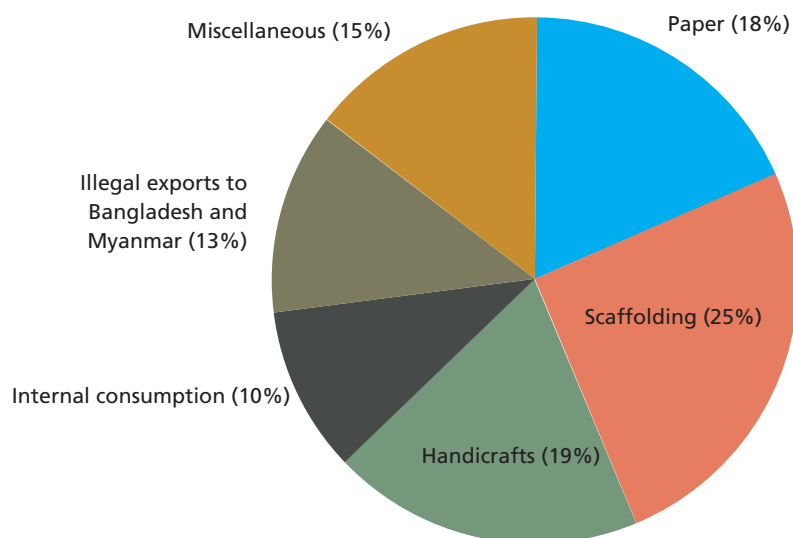
Annexure

Can CFR areas meet India's bamboo demand?

Bamboo emerged as one of the most valued forest produce from CFR areas (both recognized and potential) in our study. During interactions with CSE, members of almost all gram sabhas expressed interest in improving the production of bamboo in their CFR areas—not only for economic purposes but also for local uses as food etc. CSE's study also found out that bamboo has tremendous potential in building a forest economy in India that provides sustained employment to forest-dependent communities.

The applications of bamboo are versatile, ranging from local use as food, medicine, bamboo-ware and construction material, to industrial use in the pulp and paper sector, scaffolding, plywood, furniture, and the handicraft industry. In the northeastern states, bamboo is a popular construction material too. It is capable of growing in an extremely diverse range of conditions—varying from organically-poor to mineral-rich soils—and moisture levels—from drought-stricken to water-logged. Bamboo plays an important role in carbon sequestration and biodiversity conservation as well. It is considered a viable alternative to timber in the country, to deal with the growing demand.¹ Given that communities are interested in bamboo with its wide-ranging social, economic and ecological uses and benefits, CSE's study examined in some detail the potential of CFR areas to meet the bamboo demands of the country.

Figure: Bamboo usage in India



Source: National Bamboo Mission

Bamboo—the national picture

Although there is disagreement over the extent of bamboo-bearing forests and growing stock in India, the country is second only to China with regard to total bamboo resource. The National Bamboo Mission (NBM) puts these figures at 8.96 million hectares and 80.43 million MT respectively² while the 2011 State of Forest report has estimated that bamboo is spread over nearly 13.9 million hectares of forestland in India, with a growing stock of 169 million MT.³ India has 125 indigenous and 11 exotic species of bamboo with different properties, uses and productivities.⁴

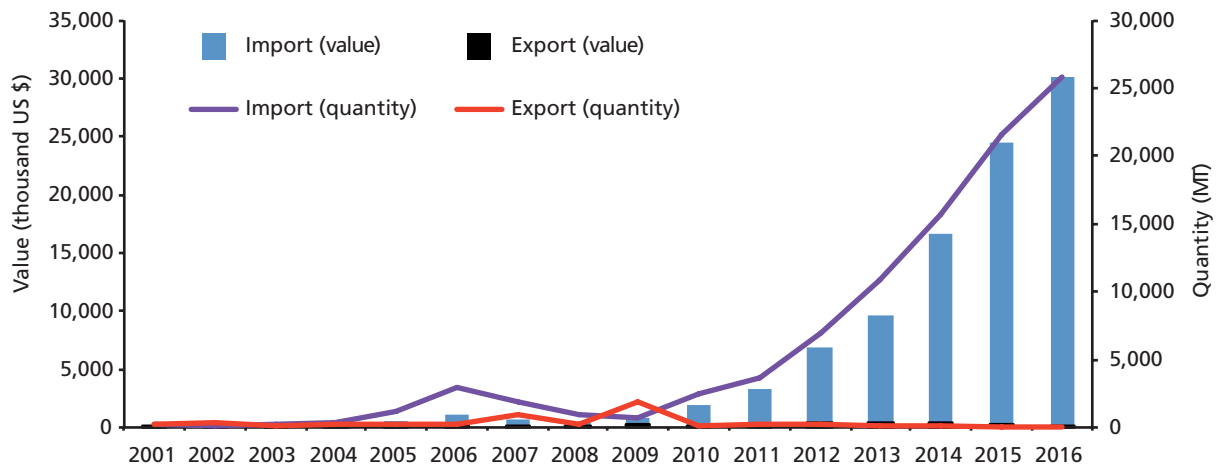
Despite the impressive growing stock of bamboo in the country, India has been struggling to meet its domestic demands. The annual production of bamboo in India is 3.23 million MT as per NBM estimates, making its productivity 0.36 MT per hectare.⁵ According to the 2016 estimates by Niti Aayog, the domestic production of bamboo is only sufficient to meet half the demand in the country.⁶ The country has been importing bamboo and its products from neighbouring countries to cater to the rest of the demand.

India's share in the global bamboo market is also very low at 4.5 per cent.⁷ The country has exported only 5,421 MT of bamboo from 2001 to 2016, as opposed to 95,475 MT of imports of bamboo and bamboo products during the same period.⁸ The corresponding value of imports is US \$97.16 million, as opposed to US \$2.75 million for exports.

Bamboo productivity in CFR areas

Mendha Lekha was the first village in the country to receive CFR rights and be issued a transit passbook to transport bamboo out of the forest in 2011. The village has reported an increase in bamboo productivity in its CFR, from 450 culms per hectare (80 per cent long and 20 per cent medium) to 850 culms per hectare (90 per cent long and 10 per cent medium) from 2011 to 2014.⁹ This translates into change in bamboo productivity from 2.7 MT per hectare to

Figure: Import and export of bamboo and bamboo products (2001-16)



Source: International Trade Centre/JUN Comtrade

5.7 MT per hectare during this period (where 40 running meters is equivalent to 50 kg for the bamboo species *Dendrocalamus strictus* in the region). The gram sabha leveraged funds under MGNREGA to carry out SWC activities in the bamboo-bearing areas, which has resulted in an improvement in bamboo productivity.

In comparison, the annual productivity of bamboo from forests in India is less than 1 MT hectare, as calculated from NBM estimates. Mendha Lekha's impressive improvement in bamboo productivity in its CFR area can be studied further and replicated in CFR areas across the country. Several other villages in the same district have started collection and sale of bamboo in the last two years. Data on the quantity of bamboo collected and sold by nine gram sabhas in 2015–16 in the district reveals an average annual productivity of 1 MT per hectare, which is higher than the national average. For the bamboo production details of the nine villages in Gadchirolli in 2015-16, see *Table: Bamboo productivity in CFR villages of Gadchirolli, Maharashtra*.

In Maharashtra, more than 85 per cent of the bamboo production comes from Gadchirolli district alone.¹⁰ Most of these forests are in the process of being handed over to the local communities for management under FRA. It is safe to predict that the CFR areas of Gadchirolli would continue to be major suppliers of bamboo in the state in future too. The protection efforts of these gram sabhas are likely to have a positive impact on bamboo productivity in a few years.

In Andhra Pradesh, CFR implementation has been quite tardy. Several villages have filed CFR claims over the area that was assigned to them under JFM in the 1990s. Known as Vana Samrakshana Samitis (VSSs) in the state, these committees had been allotted degraded and understocked forests for protection and regeneration. The results were visible soon thereafter. The degraded forests were converted into mixed forests with bamboo as the dominant species. Data obtained from 90 villages in two forest divisions of the state reveal that these villages had achieved an average annual bamboo productivity of 1.38 MT

Table: Bamboo productivity in CFR villages of Gadchirolli, Maharashtra

Village	CFR area (hectare)	Bamboo bundles*	Weight of bamboo (MT)	Per hectare production of bamboo (MT)
Bhimanpayli	1,973	46,017	837	0.4
Sonpur	347	6,038	110	0.3
Sawargaon	936	14,732	268	0.3
Dongargaon	265	9,312	169	0.6
Padyalajob	1,490	16,939	308	0.2
Mayalghat	1,068	123,986	2,254	2.1
Murkuty	440	9,621	175	0.4
Lakshmipur	662	150,953	2,745	4.1
Jhankargondi	738	22,064	401	0.5
Average	880	44,407	807	1.0

*Bamboo bundles comprise of sticks with length less than 2 m. In Gadchirolli, 55 bamboo bundles make a MT.
Source: Analysis based on data provided by Srishti, Gadchirolli, Maharashtra

Table: Bamboo productivity in VSS areas of Andhra Pradesh

Forest division	Forest range	Number of VSSs protecting bamboo forests	Total area under VSSs (hectare)	Bamboo production in three years (MT)			Total production in three years (MT)	Annual productivity (MT per hectare)
				12–15cm	16–18 cm	19–22 cm		
Srikakulam	Kasibugga	32	6,850	7,245	11,500	4,436	23,181	1.13
Srikakulam	Palakonda	28	6,350	6,643	10,545	4,067	21,256	1.12
Vishakapatnam	Chodhavaram	30	4,256	7,529	11,951	4,610	24,089	1.89
Average			5,819	7,139	11,332	4,371	22,842	1.38

Source: Centre for People's Forestry, Andhra Pradesh

per hectare through restoration of degraded forests, which is better than the national average as well as the state average. *Table: Bamboo productivity in VSS areas of Andhra Pradesh* provides details of bamboo production from the two forest divisions.

The VSSs demanded their right to harvest bamboo and share benefits as promised under JFM. The forest department, however, refused on the ground that they had no record of bamboo in their working plans for these areas. With support from a local non-profit, Centre for People's Forestry, the villages had to convince the divisional forest officer (DFO) to visit the sites and confirm that bamboo existed as claimed and was ready to harvest. Subsequently, it was decided that working schemes regarding bamboo would be prepared for these sites. The forest officials maintain that these working schemes have been submitted to the regional office of MoEF&CC in Bengaluru and their approval is awaited.¹¹ Since then, more than 10 years have passed. FRA has provided a chance to these villages to get these forests recognized under CFR but, unfortunately, the district administration is yet (as of March 2017) to act on their CFR claims.

Bamboo potential from CFR areas

The aforementioned examples from Maharashtra and Andhra Pradesh make it evident that gram sabhas are capable of improving bamboo productivity in their CFR areas. The annual productivity has ranged from 1–5.7 MT hectare in CFR areas where conscious efforts have been made to improve it. It is difficult to estimate the average productivity of bamboo that can be achieved in CFR areas of the entire country based on the small sample size. However, we can safely assume that gram sabhas can achieve an annual bamboo productivity of at least 1 MT per hectare in mixed forests of their CFR areas.

After northeastern states, the largest bamboo-bearing forests are found in the central states of Madhya Pradesh, Chhattisgarh and Maharashtra, followed by Odisha, Andhra Pradesh, Karnataka and Gujarat.¹² The CFR potential of the aforementioned states is 21.15 million hectare. At the minimum average annual productivity of 1 MT hectare, even if half the potential area under CFR

Table: Potential of bamboo production from CFR areas in the country

State	Extent of forests under bamboo (hectare)*	Average annual bamboo production (MT)**	Existing bamboo productivity (MT per hectare)	CFR potential (hectare)	Bamboo production potential from CFR areas (MT)
Andhra Pradesh	818,400	140,509	0.17	1,106,147	553,073
Chhattisgarh	1136,800	52,000	0.05	2,980,800	1,490,400
Gujarat	409,100	NA	NA	1,252,773	626,387
Karnataka***	818,600	22,605	0.03	2,389,527	1,194,764
Madhya Pradesh	1305,900	124,343	0.05	6,288,366	3,144,183
Maharashtra	1146,500	80,200	0.07	4,820,028	2,410,014
Odisha****	1051,800	100,000	0.09	2,315,486	1,157,743
TOTAL	6687,100			21,153,127	10,576,564

*Source: State of Forest Report 2011

** The average has been calculated for the period 2006–10 using the information provided in Forest Statistics Report 2011

*** For Karnataka, one-time production data has been taken from the state Forest Statistics Report 2013

****Source: www.odishafdc.com

areas were used for bamboo production, these seven states alone could produce 10.57 million MT of bamboo annually. This would be more than three times the current production of bamboo in the entire country. *Table: Potential of bamboo production from CFR areas in the country* gives details of the production potential of the seven states.

Coupled with production from the northeastern states, which hold nearly 66 per cent of the growing stock of bamboo in India,¹³ India can use CFR areas as a tool to not only meet its domestic bamboo demands but also become an exporter of bamboo. In Mexico, where land reforms initiated in the 1980s translated into transfer of 70 per cent of Mexico's 65 million hectare forests to communities, 80 per cent of the timber production in the country comes from community forests.¹⁴ India can learn from the Mexican example to make gram sabhas the major producers of bamboo and other forest products. This will significantly boost the local economy, while ensuring sustained supply of bamboo for local needs as well as for industrial demand.

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Annexure 1: Can CFR areas meet India's bamboo demand?

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First came the forest, followed by the people, and then the government. Does this chronology allow the newest entrant in the scheme to determine the relationship between the two older entities? In other words, does the new regime of Community Forest Resource (CFR) bequeath rights or is it merely a recognition of unalienable rights already vested in the communities living in forests?

This question is at the heart of the investigation carried out in this report as it examines the processes of the CFR regime and their implementation through case studies from four states.

Can a recognition of the historical bond of people with the forests unearth a willingness to make forests wholesome again (for example, by avoiding monocultures), create more egalitarian forest communities, and ensure that the forest meets (almost) all the needs of its citizens, not the least their need for livelihood?

The answer seems to be in the affirmative—and why should it not be? After all, if a tree falls in the forest, the people living in the forest are the first to hear.



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