

Compensating for Forest Loss or Advancing Forest Destruction?

A Study of Compensatory Afforestation in India

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Introduction

The phrase *Compensatory Afforestation* has been much in use in official environmental literature in India in recent years, even appearing in the name of a controversial law, the Compensatory Afforestation Fund Act (or CAF Act) of 2016. But what exactly is Compensatory Afforestation? What are the new environmental products known as ‘compensatory forests’? And what effects are these innovations having on forests in India?

This paper aims to provide some answers. It will show that Compensatory Afforestation – a method of licensing deforestation in one place by claiming to be able to ‘compensate’ for it elsewhere – is accelerating the invasion of forests in India by big corporations, continuing and extending an earlier process of licensing deforestation (forest diversion) institutionalized under the Forest (Conservation) Act of 1980.

Compensatory Afforestation not only helps greenwash ongoing land-grabs, but also directly encroaches upon common property resources and community-held lands. Many of the firms involved are state-owned, yet are routinely allowed to violate statutory obligations, exposing the pitiful state of environmental compliance in India.

The paper will look at several projects in which deforestation in one location has been combined with seizure of land for supposedly ‘commensurate’ afforestation in another location. These cases reveal that Compensatory Afforestation is one more manifestation of the controversial worldwide fashion for environmental *offsetting* – a trend that, instead of mitigating or compensating for environmental damage, substantially adds to it.

First, we wanted to look at examples from some of the sectors that have benefited most from state permissions to deforest. These include mining (Durgapur), hydropower (Subansiri and Teesta) and irrigation (Polavaram).

Second, we wanted to consider projects that have faced intense, prolonged ground-level resistance or public controversy. This is true of Subansiri, Teesta and Polavaram, where one particular focus of struggle has been forest rights and implementation of the Forest Rights Act of 2006; the communities affected by all three are largely forest-dependent *adivasis* or indigenous peoples. At Durgapur, meanwhile, both mining and the afforestation that supposedly ‘compensates’ for the associated forest destruction have had significant socio-ecological impacts.

The paper hopes to situate Compensatory Afforestation in India within the global political economy of the commodification of nature. Keeping in focus the old theme of

dispossession, it also attempts to highlight the irreversible impacts that new, neoliberal approaches to nature are having on communities using and living in natural habitats.

We start by outlining what Compensatory Afforestation is, and then analyze specific instances of landgrabbing and other direct and indirect attacks on communal resources that are linked with it.

We examine the ways that funds from the Compensatory Afforestation Management and Planning Authority (CAMPA) have been used not only for Compensatory Afforestation but other activities as well. We also look at the roles that various authorities play in identifying land for Compensatory Afforestation; issuing clearances¹(official licenses issued to institutional users of forest land) and notifications²; and allotting land for plantations.

From the beginning, this research has been handicapped by our inability to get credible official data on Compensatory Afforestation. Although Compensatory Afforestation is a state programme, no government agency involved could provide any systematic records. For instance, queries made in 2017 under the Right to Information Act about the areas, locations and survival rate of Compensatory Afforestation plantations failed to elicit any response from the state Forest Departments of Maharashtra and Andhra Pradesh. Earlier, the Ministry of Environment, Forests and Climate Change (MoEF) admitted in writing that it did not maintain any data on Compensatory Afforestation beyond what was posted on the *E-green watch*, a web portal maintained by the Ministry, which is the main source of official information for this study, including information about plantation proposals and finance. However, we have also made use of a September 2013 report by the Comptroller and Auditor General of India on Compensatory Afforestation³.

Other written sources used in this study include minutes of meetings of concerned agencies issuing forest and environmental clearances to development projects; inter-office memos and government orders such as forest/environment clearance letters; and the extensive literature on environmental services trading.

What is Compensatory Afforestation?

Compensatory Afforestation derives from the Forest (Conservation) Act of 1980⁴. This law stipulates that any diversion of forest land for development projects or other reasons must be approved by the Government of India. Such approvals are known as ‘forest clearances’ and are conditionally issued by the MoEF. Applicants for forest clearances must show that they are in compliance with certain conditions or their clearances will be suspended or revoked. Table 1, from the Centre for Science and

Environment, lays out the extent of forest lands diverted to non-forest uses between 1981 and August 2011. Table 2 shows state-wise official figures for the period 1980-2018.

Table 1: Forest Land Diversion between 1981 and 2011

<i>Purpose/Sector</i>	<i>Forest land diverted</i>	
	<i>Area (in ha)</i>	<i>Percentage</i>
Defence	46,570	3.9
Regularization of encroachment	368,432	30.7
Social services	65,089	5.4
Transport (Road, railways)	63,292	5.3
Power projects (hydroelectric, thermal, wind, and transmission lines)	164,128	13.7
Mining	148,860	12.4
Irrigation	167,237	14
Others (including industries)	175,067	14.6
Total forestland diverted	1,198,676	

Source: Centre for Science and Environment, Media Briefing, 2012, available at http://www.cseindia.org/userfiles/Forest_in_India.pdf.

Table 2: Forest Clearances Issued and Forest Land Diversion, by State, as at 28/03/2018

<i>S.No.</i>	<i>State</i>	<i>Total FCA Projects</i>	<i>Total Land Diverted (In ha)</i>
1	Uttarakhand	4422	69523.589
2	Punjab	3952	79547.785
3	Haryana	3183	16547.82
4	Himachal Pradesh	1906	20572.834
5	Gujarat	1756	88910.152
6	Madhya Pradesh	1472	249553.965
7	Karnataka	985	107717.842
8	Uttar Pradesh	918	62031.17
9	Maharashtra	840	38917.579
10	Rajasthan	805	43419.669
11	Andhra Pradesh	763	63800.601

S.No.	State	Total FCA Projects	Total Land Diverted (In ha)
12	Tamil Nadu	653	6793.655
13	Odisha	618	73755.1
14	Sikkim	469	4029.595
15	Arunachal Pradesh	452	335940.452
16	Chhattisgarh	418	51110.639
17	Jharkhand	399	37942.466
18	Tripura	387	3116.305
19	Telangana	291	52004.317
20	Assam	289	10010.962
21	Bihar	250	8098.866
22	Kerala	238	41422.112
23	Dadra Nagar Haveli	141	270.14
24	West Bengal	111	7535.508
25	Meghalaya	103	792.536
26	Goa	96	2709.316
27	Andaman Nicobar Islands	94	2601.073
28	Manipur	43	3760.4
29	Chandigarh	41	128.543
30	Mizoram	38	11252.297
31	Delhi	16	52.142
32	Jammu and Kashmir	7	656.452
33	Daman Diu	1	3.95
34	Lakshadweep	0	0
35	Nagaland	0	0
36	Pondicherry	0	0
	Total	26157	1494529.832

Source: e-greenwatch

According to official information from 2015, between 2009 and 2015, the central government approved 7,716 diversions of forest land for development purposes, amounting to a total of over 184,393 hectares⁵. In 2014 alone, some 35,867 hectares of forests were diverted to non-forest use⁶. From 2003 onwards, 1,592,000 hectares of dense forests have become non-forest areas (Mazoomdaar, 2015). In the three years

between 2015 and 2018, government issued official ‘clearances’ for denudation of more than 20,000 hectares of forests (Aggarwal, 2019).

At first, the Forest Conservation Act’s requirement that the government approve such diversions was conceived simply as a deterrent to organized deforestation and did not define or provide for Compensatory Afforestation. It was only in subsequent Rules and Executive Guidelines issued by the MoEF that Compensatory Afforestation was introduced. Thus in 1988 and 2003 Forest Conservation Act rules were amended to allow various agencies to apply to use or convert forest land, with the proviso that they furnish details about how they would balance lost forest with Compensatory Afforestation. Such agencies could either establish and maintain ‘forest’ plantations ⁷ on their own, or pay others, such as the Forest Department, to do so.

However, no legal definition of Compensatory Afforestation was ever offered, either in the original Forest Conservation Act or in subsequent rules. It was simply taken for granted that it was possible to “compensate for the loss of forest area, the vegetation and wildlife” (Paragraph 6, Forest [Consevation] Rules 1981) and that agencies applying for forest clearances could take care of the details ⁸. This assumption was repeated in guidelines issued by government of India in 1984, 1985 and 1986 ⁹.

A set of guidelines issued in 1989 ¹⁰, however, was more elaborate. The new guidelines required that agencies applying for forest clearances:

- Identify the equivalent non-forest land or degraded forest land that would be used for Compensatory Afforestation;
- Ensure that funds would be available and specify the mechanisms that would use them;
- Explain how their Compensatory Afforestation schemes would be monitored.

The 1989 guidelines also stipulated that, before they are afforested, lands identified for Compensatory Afforestation be transferred to the state Forest Department and declared as protected forests under the Indian Forest Act of 1927.

The current legal understanding of Compensatory Afforestation dates from the 1990’s, when the Supreme Court of India ruled, in the Godavarman case (Basavaptna, 2014) ¹¹, that Compensatory Afforestation no longer meant just setting up plantations, but also ‘compensating’ for biodiversity, river catchment and other ‘ecosystem services’ that had been lost. The Supreme Court decision also mandated monetary fines in cases of non-fulfilment of Compensatory Afforestation obligations.

As Table 3 shows, in response to a question raised in the upper house of the Indian Parliament in February 2018, the government claimed that until that time over 800,000

hectares of 'compensatory' plantations had been established under Compensatory Afforestation programme.

Table 3: Compensatory Afforestation in India as of 05.02.2018 (area planted in ha)

<i>S.No.</i>	<i>State/ UT</i>	<i>Non- Forest Land</i>	<i>Degraded Forest Land</i>	<i>TOTAL</i>
1.	Andaman & Nicobar Island	2010	199	2209
2.	Andhra Pradesh	27051	6352	33403
3.	Arunachal Pradesh	357	11361	11717
4.	Assam	871	5500	6372
5.	Bihar	66	1295	1361
6.	Chandigarh	29	43	72
7.	Chhattisgarh	4001	56302	60303
8.	Dadra & Nagar Haveli	0	0	0
9.	Daman & Diu	0	0	0
10.	Delhi	0	88	88
11.	Goa	78	1694	1772
12.	Gujarat	43098	38483	81581
13.	Haryana	0	6786	6786
14.	Himachal Pradesh	139	27704	27843
15.	Jammu & Kashmir	0	25612	25612
16.	Jharkhand	2384	28235	30619
17.	Karnataka	15621	14633	30253
18.	Kerala	762	57816	58578
19.	Lakshadweep	0	0	0
20.	Madhya Pradesh	46356	96649	143005
21.	Maharashtra	1136	101276	102412
22.	Manipur	0	5566	5566
23.	Meghalaya	0	0	0
24.	Mizoram	8615	1784	10399
25.	Nagaland	0	0	0
26.	Odisha	30649	27978	58628
27.	Pudducherry	0	0	0

28.	Punjab	978	14486	15464
29.	Rajasthan	13990	19325	33315
30.	Sikkim	1338	3453	4791
31.	Tamil Nadu	1637	2020	3657
32.	Telangana	5467	5366	10833
33.	Tripura	147	5899	6046
34.	Uttar Pradesh	5071	5183	10254
35.	Uttarakhand	8225	35403	43628
36.	West Bengal	2708	580	3289
	Grand Total	222,785	607,070	829,855

Source: The answer to part (a) of *Rajya Sabha* (the upper house of the Indian Parliament) Unstarred Question No. 224 by Prof. M. V. Rajeev Gowda, Member of Parliament, regarding opening up of forest and diversion of projects; to be answered on 05-02-2018.

As will be explained further below, the concept of Compensatory Afforestation did not originate only in India, but reflects a growing worldwide policy trend known as 'offsetting'. In the last few decades, more and more states have begun to argue that development projects can proceed with 'no net loss' of environmental goods provided that they are supplemented with offsets for lost forests, landscapes and habitats, land degradation, threats to endangered species, carbon dioxide or other pollution, or lost aesthetic benefits (Constanza *et al*, 1997; Gilbertson and Reyes, 2009; Ghosh, 2015; Kill, 2014; Lohmann, 2006; Pawliczeck and Sullivan, 2011; Robertson, 2007; Sullivan, 2013; Totten, 1999; World Bank, 2002).

Moreover, even before the emergence of Compensatory Afforestation in India, offset projects, together with the development projects that they excuse, were adversely affecting community tenure, rights and interests, as well as the well-being of nonhumans, in dozens of countries, although it is unclear to what extent the Indian state has taken account of this experience.

The Contradictory Logic of Compensatory Afforestation

The term *Compensatory Afforestation* implies that forests are uniform to the extent that if they are lost in one place, the loss can be made up for by afforesting unforested lands elsewhere, or by more stringent conservation of other existing forests. On this assumption, variations of which are shared by 'offsetting programmes' worldwide, the loss of any natural system is redeemable, and no forest requires perpetual protection – principles that are extremely convenient for 'development project' advocates.

Compensatory Afforestation also implies that deforestation by development projects is normal and will continue indefinitely – another principle favourable to continued forest destruction. Compensatory Afforestation encourages the assumption that the granting of forest clearances is a *fait accompli*, undercutting the credibility of the elaborate processes that are supposed to justify each clearance.

In India, all indications are that Compensatory Afforestation not only coexists comfortably with, but also accelerates, the rush to destroy forests for development projects. In a meeting in May 2017, the Forest Advisory Committee (FAC) of the Ministry of Environment, Forest and Climate Change (MoEF) cleared diversion of 61,278 hectares of forest¹². In the first eight months of that year, the MoEF recommended diversion of no less than 91,798 hectares (Pinjarkar, 2017)¹³. As a member of the Delhi-based Environment Impact Assessment Resource and Response Centre observes, “FAC seems to be in a tearing hurry to divert forest land”¹⁴.

Already, the great majority of applications for forest clearance are approved without many questions being asked. Between 2006 and July 2010, for example, no application for forest clearance by coal- and gas-based thermal power plant projects was rejected by the Expert Appraisal Committee of the MoEF (Dharmadhikari and Dixit, 2011); nor, during the period between April 2007 and December 2012, any of the 262 applications from river valley and hydroelectric projects. At most, a few applications are sent back for reformulation before being approved (SANDRP, 2013)¹⁵. There seems little chance that Compensatory Afforestation can do anything but speed up this trend.

The conception of forests that underlies Compensatory Afforestation, therefore, is full of paradox. First, the idea that one forested area can stand in for another regardless of the biological, spatial and social distinctions among them contradicts and threatens the very notion of forest diversity (Ghosh, 2015; Kill, 2014; Lohmann, 2013) – a theme that will be explored further below. Second, the type of forest ‘conservation’ represented by Compensatory Afforestation depends for its very existence on continued *deforestation*.

These two paradoxes lead directly to a third: namely, that instead of reducing forest conflict, Compensatory Afforestation tends to increase it. First, Compensatory Afforestation helps sustain the pattern of dispossession and livelihood destruction associated with development projects. One of the consequences of the continuing loss of India’s biodiverse forests to such projects, after all, is the displacement of human communities whose livelihoods and cultures are closely tied up with them. The consent of local forest-dependent communities to such projects is seldom obtained, despite a number of supposed legislative safeguards including the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Rights) Act of 2006 (hereafter “Forest Rights Act” or “FRA”) and the Panchayat (Extension to Scheduled Areas) Act of 1996 (hereafter “PESA”). Nor are people’s livelihood links and cultural associations with forests normally

taken into account during the identification of project-affected communities eligible for compensation.

But Compensatory Afforestation opens up a second front of displacement and impoverishment as well, when other communities at some distance from development projects see their relations with their local land and forests disrupted so that their territories can be converted into offsets. Today, it is assumed that every development project applying for clearance to destroy forests will carry out Compensatory Afforestation. The inevitable result is a second wave of dispossession associated with afforestation projects that supposedly ‘compensate’ for the forest destruction accompanying the first wave. Again, this is a pattern that is also evident from the experience of offsetting elsewhere in the world (Re:Common, 2018).

How Compensatory Afforestation Became Institutionalized

How has this contradictory offset logic become entrenched in the institutions of the Indian state? And what are the implications for forests and forest-dependent peoples in India?

This section will look briefly at three important processes and their effects: the reform of Land and Forest Law; the institutionalization of neoclassical economic techniques for calculating the so-called ‘Net Present Value’ of forests; and the creation of a special body for managing offset funds, the Compensatory Afforestation Management and Planning Authority (CAMPA).

Land and Forest Law

Compensatory Afforestation policy specifies that *before* any piece of forest land is diverted for a development project, an equivalent parcel of non-forest land, or, if this is not available, a parcel of ‘degraded’ forest land twice its size, must be proved to be available for ‘compensatory’ tree plantations. This land may be at a great distance from the deforested area, and may even be located in a different ecological zone. For example, between 2011 and 2013, the Ministry of Environment and Forests issued 1,039 forest clearances, licensing denudation of over 29,445 hectares of forests ¹⁶. That implied that at least 29,445 hectares of land – and possibly much more – had already been found elsewhere on which to establish ‘compensatory’ plantations.

This second wave of land grabs involves a number of legal convolutions. Disregarding the diversity, complexity and overlaps in land tenures and revenue systems, and ignoring the question of customary rights altogether, Compensatory Afforestation

assumes that:

- Any land is either forest or non-forest;
- There is an unlimited supply of non-forest lands, and that all that is needed to turn them into potential Compensatory Afforestation areas is to identify and classify them officially as forests.

Sometimes, as with government lands in Polavaram, forested and semi-wooded hills (*kondas*) adjoining villages are already classified as *revenue lands* (lands held and mapped by Land Revenue/Land Reforms Department are called *revenue lands*, to differentiate these from forest land held and mapped by the Forest Department) or non-forest. Such lands can be straightaway used for Compensatory Afforestation – the Forest Department only needs to declare them as forest by issuing a legal notification under the Indian Forest Act to that effect.

In other contexts, however, things are not so straightforward. Often, for example, custom-governed community lands which have been neither mapped nor recorded by government or privately-held lands, as in Arunachal Pradesh, have to be first acquired by the government, notified as forest and put under the control of the Forest Department, before Compensatory Afforestation can be carried out on them.

In general, the extent of land actually available for Compensatory Afforestation falls far short of the legal requirement, on any legal or reasonable interpretation of ‘available’. The Comptroller and Auditor General of India report observed that while the total forest land cleared for development projects during the period 2006-2012 amounted to 114,877 hectares, only a bit over 28,085 hectares of non-forest land was shown as actually ‘available’ (it’s not clear what the word ‘available’ stands for – perhaps it indicates land already identified for Compensatory Afforestation and/or notified as forest).

Problems in obtaining requisite non-forest land for Compensatory Afforestation have led to the idea of ‘land banks’. ‘Land banks’ include government-owned lands classified as non-forest that state governments set aside for future use (Tripathi, 2017). Various state governments in India have been known to build ‘land banks’, using both private and common lands, so that investors can get cheap land. Data from state government websites show that up to 2,68 million hectares of land have been set aside in land banks in the eight states (Andhra Pradesh, Chhattisgarh, Jharkhand, Madhya Pradesh, Odisha, Rajasthan, Tamil Nadu and Uttar Pradesh) that declare these statistics (Tripathi *ibid*).

The concept of creating ‘land banks’ for Compensatory Afforestation has also echoes in similar ‘banks’ in existence, mainly in the USA – for instance, species banks or wetland banks (Robertson, 2006; 2007) ¹⁷. It is thought that a ready government land pool, which can be used for Compensatory Afforestation as and when required, would reduce

delay on environmental compliance issues. In other words, a corporation applying for a forest clearance could show government 'land bank' lands as non-forest lands available for Compensatory Afforestation, without having to wait to identify and buy such lands from private owners and communities piecemeal. This would particularly benefit private businesses who are legally obliged to use primarily non-forest land for Compensatory Afforestation.

But if non-forest 'revenue lands' are not available, what lands are being acquired for the purposes of afforestation and brought under 'land banks'? How far away are they from the deforested area? What ecological zones are they located in? What communities depend on them?

Various recent guidelines and circulars propose that these 'land banks' be carved out of common lands on which local peoples are dependent for their livelihood, such as *zudpi* jungle – which are scrub forests used for grazing, cultivation, collection of minor forest produce and other purposes (Garg, 2000) – or village *nistar* lands, which, in Maharashtra, Telengana and Andhra Pradesh, are forest areas on the erstwhile estates of *zamindars* or landlords, on which local villagers have various use rights (CSD, 2005). Because common lands in India have supported a wide range of colonial as well as pre-colonial forest and land tenures, the precise nature and extent of rights enjoyed by the villagers vary from state to state, and even within regions and tenures in a particular state.

After India's independence in 1947, all states within the Indian Union enacted separate laws to declare all kinds of forests and common lands, not so far shown as government property on official records, as state-owned, though not all such land were transferred to the Forest Department (CSD *ibid*). Which means that despite being state-owned, such lands and their forest tenures, wherever being managed under the administrative jurisdiction of the Land Revenue/Reforms Department, continued to support rights.

Once again, depending on the state, region and tenure, these rights were of both recorded and unrecorded varieties. In the central Indian states off Maharashtra, Madhya Pradesh and Chattisgarh, for instances, there are huge blocks of forests and common lands generally known as 'orange areas' (after the orange colour used to denote such lands on state land maps), over which both the Land Revenue and Forest Department claim ownership (Garg, 2000). Such orange areas comprise *zudpi* jungle, *chhote/bare jhar ka* jungle (jungles of small and big trees), *jungle-jhari* land (scrub forests usually) and an assortment of other categories such as *malgujari* and civil-*soyam* lands¹⁸, all of which might consist entirely of old *nistar* forests over which local people used to have various recorded rights, or include pasture and other common lands as well. In Andhra Pradesh, Telengana and Odisha, large swathes of forest areas traditionally used for swidden cultivation were recorded as 'revenue land'. In the forested and mountainous

states in the North East India, swidden as well as other custom-governed forest areas were all shown as ‘unclassed state forests’, over most of which, however, state agencies have no control.

Thus, in 2017, when the Ministry of Environment, Forests and Climate Change amended its guidelines for Compensatory Afforestation in order to open a range of common lands with “crown density up to 40 percent”, such as “revenue lands/*zudpi* jungle/*chhote*/bare *jhar ka* jungle/*jungle-jhari* land/civil-*soyam* lands” to plantation offsets by notifying them as “Reserved Forests under the Indian Forest Act 1927”¹⁹, it heralded the beginning of an unprecedented offensive against community forests.

Arunachal Pradesh, with more than 80 per cent of its geographical area under forests, had, in 2001, no non-forest land appropriate for Compensatory Afforestation, a fact admitted by a former Chief Minister of the state ²⁰. Yet, as our investigations show, in order to ensure that clearances for forest destruction under the Forest Conservation Act are not held up or refused, the state government is now setting up land banks. Forest officials have been directed to ensure that community lands are notified as Reserved Forests, Protected Forests, Anchal Reserve Forests or Village Reserve Forests (all these various classes of forests are defined by the central Indian Forest Act as well as Arunachal State Laws) ²¹. These recategorizations legally permit large areas of common forest lands to be taken over for Compensatory Afforestation, facilitating the development-project-related destruction for which they will serve as ‘offsets’.

In the last few years, then, the definition of ‘degraded forest land’ available for Compensatory Afforestation has been stretched to its furthest limits. Today, it includes not only a wide array of scrub, small woodlots and pastures, but also huge tracts of swidden cultivation fallows throughout India (including fallows associated with systems of shifting agriculture known as *jum* and *podu*) – many of which have a current crown density of 40 percent and below. Because most such lands are under at least the partial *de facto* control of communities that claim long-established rights over them, attempts to use them for Compensatory Afforestation can only result in more enclosures and conflicts. Plantations of commercial and quick-growing species would also severely affect the biodiversity found in such areas.

Our field visits, together with data from the *E-green watch* web portal, suggest that plantation projects are often carried out on officially ‘non-forested’ lands quite distant from the original development project site. Information is scanty, however. Neither statutory Environmental Impact Assessments (EIAs) for large projects nor forest and environment clearances issued by the state authorities and the MoEF provide information about the legal status, existing users and physical characteristics of lands selected for Compensatory Afforestation.

Moreover, questions about the social and environmental impacts of allocation of land for Compensatory Afforestation never come up, as if such impacts could not occur. In fact, it is not even clear to what extent Compensatory Afforestation projects have even been implemented. According to the Comptroller and Auditor General of India report, MoEF records indicate that suspiciously few (the Report doesn't specify how many) of the 1,022 proposals for Compensatory Afforestation surveyed – involving a total of 254,000 hectares of forest land – were rejected on the ground that land for Compensatory Afforestation was not available, and hence that the legal obligations had not been met. It is one of the purposes of this study to contribute to the understanding of dispossession and alienation of commons in the Indian countryside by asking these persistently-unasked questions.

The Emergence of 'Net Present Value'

One of the most important steps toward entrenchment of the offset logic in India was a 26 September 2005 decision by the Supreme Court outlining Terms of Reference (ToR) for an Expert Committee charged with applying the concept of 'Net Present Value' (NPV) to Indian forest policy. Methodologies for determining NPV, the Court argued, would enable the state to quantify the environmental services provided by forest areas "diverted for non-forestry uses", and thus for deciding what kind of Compensatory Afforestation would be necessary.

In endorsing NPV techniques, the Supreme Court was heavily influenced by Western economic doctrines, and the report that the NPV committee eventually produced adopts many terms familiar from offsetting regimes abroad ²². These terms include 'natural capital' and 'flows of ecosystem goods and services' to 'diverse stakeholders' – goods and services that are to be measured in monetary terms ²³.

The committee's report also parrots the World Bank's 2002 forest strategy ²⁴ in identifying these goods and services as being of 'four kinds':

- Goods such as "wood, non-timber forest products (NTFP), fuel, fodder, water and provision of services such as grazing, tourism, wildlife protection and life support";
- Services such as "climate regulation, disease control, flood moderation, detoxification, carbon sequestration and health of soils and water regimes";
- "Non-material benefits obtained from ecosystems" – benefits that are "spiritual, recreational, aesthetic, inspirational, educational, communal, symbolic";
- "Supporting services" necessary for the production of other ecosystem services: "biodiversity, nutrient cycling, primary production".

On the surface, the Court's advocacy of NPV methodologies for determining the value of forests lost to development projects might seem an enlightened response to the

objection that plantations are often inadequate substitutes for natural forests. As noted above, the NPV procedures mandated by the Supreme Court were designed to price not just trees but also a whole range of “scientific, biometric and social parameters” including ‘goods and services’ like “leaf biomass (as food, shelter, fodder, fuel), barks, roots, herbs, or sequestered carbon, and health of water regimes and soils”, and even ‘spiritual’ or ‘symbolic’ qualities²⁵.

Yet it quickly became obvious that NPV was strongly biased against forest conservation and forest-dependent peoples, exemplifying and advancing the fundamental, crippling contradictions of Compensatory Afforestation and offsetting mentioned above.

First, by introducing a standardized methodology of determining specific monetary values of each forest subject to be diverted, NPV institutionalized a procedure for making different forested lands in India quantitatively comparable. In the eyes of the state, two forests or plantations, not only within certain bioregions and ecological zones but also across the board, were now potentially ecologically ‘equivalent’, provided that their NPVs could be determined to be in the ratio 1:1. A given acreage of tropical wet evergreen forest in Arunachal was now officially ‘the same’ as a certain acreage of thorn scrub forest in Andhra, of *zudpi* (scrub) jungle in Maharashtra or even of monoculture plantation of eucalyptus in Karnataka. This innovation both justified and lubricated the exchange of separate forest tracts one for another, regardless of their characteristics or location.

In the procedures followed by the forestry bureaucracy, a single abstract ‘Indian forest’ came into being whose internal differences were merely quantitative. Despite stipulations in the NPV expert committee’s ToR that the valuation exercise should be flexible enough (a) to include biological and spatial variations (“different biogeographical zones of India”) and (b) to value each category/type of forest separately (with “actual numerical values for different forest types”) according to site/region-specific “scientific, biometric and social” parameters, all such bio-ecological and site-specific parameters became potentially equivalent, being measurable according to their monetary values.

This process of ‘making forests the same’ helps considerably in streamlining approval of development projects because it makes it easier for states and corporations to find tracts of land to ‘replace’ forests that are degraded or destroyed.

But in creating countless new relationships of equivalence among different forests, it also threatens countless existing relationships of *non*-equivalence that are fundamental to both conservation and forest livelihoods. For example, the welfare of many species depends on local contexts – including human communities – that are biologically and socially unique and irreplaceable. Similarly, to survive, many human communities need

to cultivate or maintain relationships with local land, water, plants and wildlife that cannot be replaced by relationships with, say, wage-paying bosses, resettlement land or techniques for harvesting monoculture plantations. NPV procedures ensure that many such nonfungible relationships are excluded by law and state policy from being counted as aspects of 'forests' at all, hastening the disappearance of both the forests and their constitutive relationships.

The multiple new relationships of cash equivalence established by NPV techniques are a particularly powerful agent for disintegrating relations of non-equivalence on which so much forest survival depends. NPV procedures assume not only that monetary payments can 'compensate' for loss of forests, but also that in the right amounts they will always be able to preserve, restore or recreate forests, thus sustaining their environmental functions or 'services'. The more widely this false assumption is adopted, the more forest destruction will result.

Nor does it help that the Compensatory Afforestation Fund Act mandates that NPV calculations include 'non-material benefits', including those "obtained from ecosystems" and those that are "spiritual, recreational, aesthetic, inspirational, educational and symbolic". After all, NPV techniques require that any such 'non-material benefits' be made extinguishable in principle by supposedly 'equivalent' amounts of money income, corporate profits, labour time, or, for that matter, completely different but somehow 'equivalent' 'non-material benefits' that had accrued to other communities in other locations.

NPV calculation procedures, then, necessarily exclude a huge range of relevant voices. First, NPV techniques are in principle unable to accept as inputs the statements of forest biologists who object to the exchange of one forest element or function for another. Second, they cannot respect, even in principle, the voices of communities that object to the replacement of material or non-material benefits that they obtain from forests with other 'material or non-material benefits'. Finally, economist- and bureaucrat-dominated official procedures for determining NPV cannot tolerate even the physical presence in decision-making forums of forest-dependent community members who lack the proper formal educational qualifications, rendering moot the issue of whether their analyses could find a place within the format required for NPV calculations.

The NPV techniques established by the court-mandated committee are not even able to recognize what forests are, according to definitions adhered to by many communities. For example, the committee did not count development projects' destruction of *jum* (a kind of swidden or shifting cultivation) as destruction of forests, even though *jum* systems have customarily partly consisted of forests in the process of rejuvenating themselves and are not necessarily regarded by practitioners as separate from them. One material consequence has been that not even a gesture has been made toward

compensating forest communities for *jum* lost to development projects.

The material effects of reorganizing nature along lines shaped by NPV calculation will become evident throughout this study. To take one example, from 1980 to 2005, the Kudremukh Iron Ore Company Limited (KIOCL) mined and denuded hill slopes clothed in rainforests in the heart of Karnataka's Kudremukh National Park. To 'compensate' for this loss, KIOCL went on a Compensatory Afforestation spree, planting millions of trees far from the park. However, the trees, all non-native species, were planted on native grassland, an extremely important component of the Bhadra River's watershed – which meant that another natural habitat, grasslands, was destroyed through mindless tree planting (Bhargav & Dattatri, 2015).

Similarly, according to an ongoing study on Compensatory Afforestation at the Indian School of Business in Hyderabad, which is examining some 19,000 plantation sites in 10 states – Andhra Pradesh, Chhattisgarh, Himachal Pradesh, Jharkhand, Karnataka, Maharashtra, Odisha, Rajasthan, Telangana and Uttarakhand – about 60 per cent of the 189 million trees planted belong to commercial species like teak, eucalyptus, acacia and bamboo. The ecological characteristics of stands of these species are completely different from those of the forests whose loss they supposedly 'offset' (Tripathi, 2017a).

The economic imperative to 'make all forests the same' reveals its ecological absurdity perhaps most clearly in the aforementioned amended MoEF Guidelines for Compensatory Afforestation 2017 and a subsequent government order dated 22 May 2019. The 2017 guidelines redefine the purpose of Compensatory Afforestation plantations as "to compensate the loss of 'land by land' and the loss of 'trees by trees'". Forest land will be "compensated for", the *Guidelines* specify, if "at least 1,000 plants" are put in the ground somewhere per hectare of forest land diverted. But, the Guidelines continues, "if the requisite number of plants 1,000/ha cannot be planted on the non-forest land identified for taking up Compensatory Afforestation, then the balance number of the plants will be planted in degraded forest land". And "in case 1,000 saplings cannot be accommodated per ha" on that degraded forest land in turn, the balance will be put in the ground on some other government-owned forest identified by the state government in question.

The economic logic dictates that forests can be first reduced to tree plantations of whatever kind, and then to mere interchangeable 'land' and 'trees' ²⁶. The May 2019 order takes this interchangeability another step and provides that henceforth development projects requiring forest land in states with more than 75 per cent forest cover be exempt from the statutory obligation of procuring non-forest land for Compensatory Afforestation. In addition, Compensatory Afforestation can now be taken up in states "having deficient forest land/cover". It then says pieces of non-forest land less than 5 hectares in area can be used for Compensatory Afforestation, provided such lands are legally transferred to the Forest Department, do not support rights and adjoin

legally notified government forests such as Reserved and Protected Forests. Moreover, any land, “irrespective of area and suitability for CA” can be accepted for CA as long as it is “contiguous to” legally designated wild life conservation areas such as National Parks and Wild Life Sanctuaries.

In addition, Compensatory Afforestation plantations are often shown as located inside plantations routinely raised by the Forest Department after rotational felling operations, meaning that they need not be new plantations raised on land entirely lacking forest cover. This calls into question the degree to which ‘compensation’ of any kind is actually happening, and suggests more difficulties in monitoring the progress of the offset regime.

Financing Offsets: CAMPA

The destruction-cum-‘compensation’ principle rationalized through the concept of NPV is entrenched further in the Compensatory Afforestation Management and Planning Authority (CAMPA)²⁷, which has been renamed and reconstituted as the Compensatory Afforestation Fund (NCAF) under the Compensatory Afforestation Fund Act 2016. CAMPA, now NCAF, collects the NPV-determined “costs of restoration and/or compensation” for each kind of forest value lost to development projects into a special fund – although, at the discretion of the state, some development projects can be exempted from payment of the NPV of the forests that they destroy. It then distributes these payments for ‘environmental services’²⁸ as it sees fit, according to “established principles of public finance”.

CAMPA came into being through a long, winding political process. In 2002, the Central Empowered Committee set up by the Supreme Court to look into forest-related matters stated that “It is desirable (...) to create a separate *Fund for Compensatory Afforestation*”²⁹. It noted that the states unanimously held that this new system would help officials “undertake Compensatory Afforestation in a planned manner and on a continuous basis”.

In July 2006, an *ad hoc* CAMPA was constituted by the Supreme Court³⁰ to manage the Compensatory Afforestation Fund. The fund was to be fed by payments calculated and made separately for the NPV of lost forests, Compensatory Afforestation plantations, Penal Compensatory Afforestation (in cases in which compensatory afforestation obligations have not been met), and Catchment Area Treatment, which user agencies are obliged to carry out in land-based projects like mining and dams.

According to the 2 July 2009 Guidelines on State Compensatory Afforestation Fund Management and Planning Authority (State CAMPA) issued by the MoEF, money deposited as NPV was to be used for “natural assisted regeneration, forest management,

protection, infrastructure development, wildlife protection and management, supply of wood and other forest produce saving devices and other allied activities". State CAMPA was to be essentially under the jurisdiction of state Forest Departments, which would handle all the money deposited in their State CAMPA funds. The Compensatory Afforestation Act of 2016 (CAF Act) was then ostensibly brought in to provide a "permanent institutional mechanism for utilisation" of CAMPA funds, the absence of which was said to be the "main reason for accumulation of huge unspent funds"³¹.

The CAF Act provides for transfer of most of the money currently being held in the *ad hoc* CAMPA fund (500 billion Indian Rupees – the equivalent of over USD 7 billion – and growing) to state CAMPA (now renamed State CAF under the CAF Act) authorities, consisting mainly of forest officers.

What are the implications of this further institutionalization of offset logic on Indian forests and the communities that depend on them?

First, in rationalizing the collection of new 'revenues' by the state for each forest degraded or destroyed, the CAMPA framework arguably provides fresh incentives for the state to approve development projects, exerting upward pressure on baseline deforestation rates. Equally crucially, however, compensation funds tend to be spent in ways that actually augment forest destruction and foster additional violence against forest-dependent rural communities.

A basic finding of this study is that rural communities whose forests have been taken from them by development projects seldom receive any money from CAMPA compensation funds. Indeed, it is hard to see how they could ever get much compensation, since their rights remain largely unrespected. Although under the Forest Rights Act 2006, locally-recognized forest rights must be officially recorded, such documentation is still lacking in most parts of India 13 years later, including in tribal-majority areas. It is therefore doubtful whether this class of legally-mandated records will ever figure either in calculations of forest NPV lost to development projects or in decisions over granting compensation to affected communities.

Moreover, it is nowhere mandated that utilization of money from CAMPA funds has to be pre-planned, budgeted and spent in consultation with and with the consent of concerned *gram sabhas*³² (village assemblies) or other democratically-elected institutions such as district councils and *gram panchayats* from whose areas forest lands have been diverted. This also militates against the possibility of forest communities receiving much compensation.

At the time of writing, communities affected by the Subansiri Hydro Electric Power Project located on the Assam-Arunachal border may well be the sole recipients of some

compensation money for the loss of their community rights over forests³³. However, other communities whose forests are slated to be acquired by development projects in Arunachal, in North-Eastern India, and elsewhere may also receive such funds in the future.

The 40 square kilometers of rain forests destroyed by the lower Subansiri HEP in Arunachal have been given a Net Present Value (NPV) of a mere 3 billion Rupees, a paltry Rs 750,000 – or less than USD 11,000 – for each hectare of forest that had to evolve over many hundreds of thousands of years³⁴. This figure was determined in 2004 as part of the lengthy Godavarman legal case mentioned above³⁵.

The order of the Supreme Court makes it clear that the Rs 3 billion NPV figure was *ad hoc* and provisional. In 2006, the Ministry of Environment and Forests turned down a request from the Government of Arunachal Pradesh to allow them to use these funds, deposited by the National Hydroelectric Power Corporation (NHPC), to compensate project-affected families for their lost rights to community forests. MoEF said that paying compensation was the responsibility of the user agency, and the funds could not be used for this purpose³⁶. The compensation for lost community rights (basically, the loss of traditional *jum* – swidden – fallows) was later unilaterally paid by the state-owned NHPC, the project developer in question, over and above the money paid as NPV.

If little CAMPA money goes to communities affected by development projects (who are often the ones with the most experience in preserving their local forests), where does it end up? According to our research, most funds go to:

- Destructive and exclusionary plantation projects;
- Oppressive eviction schemes;
- Purposes entirely unrelated to forest use and conservation or even to plantation establishment.

The following sections devoted especially to CAMPA summarize each of these findings in turn, detailing some of the effects on rural peoples and their forests.

Offset Money for Destructive Plantations

According to a February 2018 statement by the Minister of Environment, plantations supported by CAMPA funds had been established to date on 829,000 hectares of land (*E-green watch* puts the total area covered by plantations at 820,385 hectares). Some

220,000 hectares of these plantations were set up on non-forest land and the remaining 607,000 hectares on 'degraded forest land' (see Annexe 1) ³⁷.

However, by the rules of Compensatory Afforestation, plantations must be set up on at least an additional 693,553 hectares of land, in order to complete the task of offsetting what the MoEF calculates to be a total of 1,522,553.47 hectares of forest lands diverted so far for development projects (over a time period that has not been specified) ³⁸.

The 2016 CAF Act has already resulted in a fresh spurt of attacks on forest communities in the form of such 'afforestation' projects. Not only do such projects enclose common lands such as community-governed forests and pasture. They also take over agricultural lands, more often than not forcefully, under false pretences and in clear violation of the law.

Some 47 separate cases of plantation-related land conflicts, affecting more than 53,000 persons and 115,225 hectares of land, have been reported on the web portal landconflictwatch.org. Many of these conflicts are related to Compensatory Afforestation Plantations, and involve violent, illegal takeovers of either forests traditionally used and protected by communities or agricultural lands on which claims have been made (and sometimes even formally recognized) under the Forest Rights Act (FRA). For example:

- At Raajbans village of Garhwa district in Jharkhand state, the Forest Department took over and planted saplings on 394 hectares of land already claimed as community land under the FRA, after burning and clearing a large part of the existing vegetation, including on grazing grounds;
- At Arjuni and Ganjadih villages in Chhattisgarh state, Departmental staff fenced off an area of 109 hectares that villagers had claimed as their Community Forest Resource area;
- At Diyajori village (Sundar Pahari block, Godda district) of Jharkhand, the Department earmarked over 60 hectares of forest land for plantations, ignoring pending Community Forest Rights claims on it;
- At Banmalipur village in Baxitulsipalli *Gram Panchayat* of Kalahandi district in Odisha state, the Department fenced off the Community Forest Resource area under the control of the local *gram sabha* to start plantation activities.

According to ongoing research on Compensatory Afforestation in India covering 56 villages in four states (CFR-LA, 2019), communal lands either recognized or claimed as community forest resources under the Forest Rights Act are the main target of Forest Department plantation efforts. The Department fences off the relevant land, posts guards and installs CCTV cameras, restricting people's rightful access to lands that they have traditionally used. Many villages find their access to non-timber forest products (NTFPs) restricted, while others are deprived of grazing rights. In Gadchiroli in

Maharashtra state, even the path to the plantations has been blocked.

In Pidikia, a village in Odisha state, the Forest Department erected metal gates to encircle 100 hectares of forest slated for plantations, leaving the community suddenly without access to their traditional way of life (Madan, 2017). At Rangamatia, a village in Keonjhar, north Odisha, nearly 370 hectares of dense community-conserved forests were taken over for Compensatory Afforestation advertised as making up for deforestation attributable to the operations of Khondbond Iron & Manganese Mines of M/S Tata Steel Ltd. Before villagers started uprooting them in anger, concrete pillars marked “Tata” dotted the village, including on lands of which villagers have titles (Choudhury & Singh, 2016).

In some cases, access to sites of cultural or religious significance has also been denied. In Arjuni, Chhattisgarh, villagers lost access to *samshan* or cremation grounds inside the forest, and in Sarasdol to the *kurrapat* (sacred land) of Gond and Bhinjwara tribal peoples. In Niyamgiri in Odisha, where the Dongria Kondhs successfully opposed mining, Compensatory Afforestation plantations have been proposed on sacred groves deep inside the forest.

Our research failed to turn up any Compensatory Afforestation plantations in the vast mountainous terrains of Arunachal Pradesh that were related to the Lower Subansiri Hydro Electricity Projects, nor any such plantations related to the Teesta HEPs in Sikkim.

We did, however, discover many Compensatory Afforestation sites related to the Polavaram multi-purpose dam project on the Godavari river in Andhra Pradesh. These plantation sites were located on *podu* (traditional shifting cultivation) lands over which local people have historical rights, including some lands to which people have filed official claims under the FRA³⁹. The Forest Rights Act process had not been initiated in traditional *podu* areas and other hill (*konda*) forests where the land was recorded as ‘revenue/non-forest’. The Forest Department simply acquired ‘revenue lands’ still in use by the villagers, without completing the legal process for notifying these lands as forest before acquisition. Nor were the relevant *gram sabhas* consulted⁴⁰.

This story is repeated in other so-called ‘degraded forest areas’, which are, without exception, *podu* lands that people still cultivate in patches, as well as in *konda* forests (*konda* or hill forests within village boundaries are treated as communal lands). Both have always been part of the *de facto* tenural regime in Andhra Pradesh, despite repeated take-overs by the Forest Department and land settlement operations carried out during colonial rule and the wholesale takeovers of forest lands by the state government after 1955 (David, 1982; Hemingway, 1915; Prasad, 1999). These lands are transferred to the Forest Department without any knowledge or consent of local people

(David, 1982; Hemingway, 1915; Prasad, 1999).

While searching for Compensatory Afforestation sites, we visited three *panchayats* in Polavaram area. The list of Compensatory Afforestation villages we followed is an official one, complete with village names as well as area (*mandal*) names and names of concerned forest ranges. Ten Compensatory Afforestation sites are located at Polavaram Mandal, all of which, we were told by local activists, fall in areas that will be submerged by the Polavaram Dam reservoir. Certain sites in other Mandals also fall in the submergence area, we found out. Anil Kumar, the leader of the popular movement against the Polavaram project, said:

“Once land acquisition for the project is over, there will be many new additions to the list of villages in the submergence area. Knowing this, and so that they will have less R&R (relief and rehabilitation) load later, the state revenue department surreptitiously handed over many old *podu* lands to the Forest Department. This we learnt recently. We couldn’t get hold of the government order, but we came to know from MR Prasad, Range Officer in Our Area (Kannapuram forest range) that the Forest Department got hold of the old *podu* lands in 2008.”

People still used these *podu* lands for growing cashew and mango, according to Kumar. As far as he knows, the *konda* lands handed over to Forest Department, and currently identified as ‘degraded notified forest’, are yet to be legally notified as ‘forest’. “We have started reclaiming that land under the Forest Rights Act: in Polavaram Mandal alone, 477 persons filed claims”, Kumar said.

Meanwhile, in the Chandrapur area of Maharashtra, plantations intended to ‘compensate’ for forests destroyed by the Durgapur Mines have been established on lands that people traditionally use as pasture and for *nistar*. Wherever such plantations have appeared, they have impinged upon people’s legal rights over forests, including the right to collect essential forest produce. Nowhere, apparently, have local people been consulted before such restrictions have been imposed or the areas identified as Compensatory Afforestation plantations.

Here it must be remembered that *Compensatory Afforestation plantation* cannot be treated as a new, legally valid category of forest, in which forest rights provided by the Forest Rights Act can be curtailed or denied. Merely declaring a land as state-owned reserve or protected forest doesn’t imply that people traditionally using the land lose all rights to it. One reason for this is that in all matters of forest rights, the Forest Right Act (FRA) takes precedence over other acts, such as Indian Forest Act or various State Forest Acts. In other words, the FRA is a far superior law.

Many Compensatory Afforestation sites in Chandrapur in Maharashtra are now part of

the extended buffer zone of the Tadoba Andheri Tiger Reserve (TATR). The TATR authority is denying local villagers' *nistar* rights for grazing and firewood and timber collection (Brahme and Prakash, 1983), in complete disregard of the Forest Rights Act and the amended Wild Life Protection Act (1972, 2006), which also provides for community access to forests for livelihood in tiger reserve buffer zones. In and around TATR, village lands are being simultaneously used as Compensatory Afforestation areas and as part of the extended buffer zone of the Tiger Reserve.

The TATR has also encroached upon village land officially identified as non-forest land. For instance:

- Over 121 hectares of agricultural and other lands of Parna village, along with its *nistar* forests, have been declared as belonging to the buffer zone of the Tadoba Andheri Tiger Reserve, following the declaration of Tadoba Andheri Tiger Reserve as a Critical Tiger Habitat under the amended Wild Life Protection Act ⁴¹;
- Some 610 hectares of protected forests (all converted *nistar* forests) in forest compartments 858, 859, 860 and 861 adjoining Vhirgaon village ⁴², as well as 444 ha of the village's own non-forest land, have also been declared as belonging to the Tadoba buffer zone ⁴³;
- The two full forest beats (a *beat* is the primary administrative unit in a state-owned forest—several beats make a *range*, and several ranges a *division*) consisting of Reserved Forests in forest compartments 221, 243, 222, 556, 557 and 220A, with a total area of 1,278 hectares, have also been included in the buffer zone. Once again, the Forest Department overrode the provisions of the FRA and failed to consult local villagers beforehand.

Elsewhere around Tadoba, Compensatory Afforestation areas are being selected apparently at random. At Sitampeth, near the entrance to the Tiger Reserve, on what is quite clearly a village grazing area (the tract is entirely treeless; only closely-cropped grass could be seen), a fence has been erected to create a new Compensatory Afforestation site with about 100 trees on it (the display board proclaims that the land falls in compartment 956, which has an area of nearly 609 hectares). All lands near the board showing the Compensatory Afforestation site are non-forest, and similarly treeless. Villagers alleged that the land never had trees and that their animals grazed there before the Forest Department arrived with their fence and board. Evidently, a grazing area has been classified as a Reserved Forest, and later as 'degraded notified forest' to be used for Compensatory Afforestation. Real forests – including three protected forest compartments (955, 956 and 957), with a total area of almost 614 hectares – have also been turned into part of Tadoba's buffer zone. Some 559 hectares of non-forest lands in other locations have also been acquired for the buffer zone.

In all of these cases, Compensatory Afforestation funded by CAMPA-administered offset

payments is prolonging the same historic injustices against forest communities in India that the Forest Rights Act and the Panchayat (Extension to Scheduled Areas) Act of 1996 seek to atone for (Ghosh, 2008; Gopalakrishnan, 2016) ⁴⁴. In so doing, it is perpetuating failures that were already well-understood even in the late 1990's, before the Supreme Court-mediated rise of NPV and CAMPA.

Significantly, most of the lands earmarked for Compensatory Afforestation that we investigated lie in predominantly tribal areas protected under Schedule 5 and Schedule 6 of the Indian Constitution, whose use is governed by distinctive sets of laws, constitutional provisions, and customs. In colonial days these lands were either part of various 'excluded' territories (tribal areas kept out of the administrative jurisdiction of the government) or specially-designated tribal reserves. In terms of forests, these lands today contain:

- Both old and new *jum/podu* lands (swidden cultivation lands in Andhra Pradesh and Telengana);
- Traditionally community-held forest areas (Arunachal, Sikkim);
- Old *zamindari* forests (forests belonging to a *zamindar*, or landlord) now used for *nistar*;
- Government-owned Reserved Forests notified under the Indian Forest Act 1927 (in Maharashtra, Andhra Pradesh, Sikkim and Arunachal);
- Wildlife areas notified under Wildlife (Protection) Act of 1972 (in all four areas but mainly in Vidarbha, Maharashtra).

We also looked at forest areas governed either by customary laws (Arunachal, Sikkim) or by statutes that recognize customary laws. In Arunachal, for instance, *jum* areas and other community forests are regulated under the Assam Forest Regulations of 1891, as well as Balipara Frontier Tract Jhum Land Regulation of 1947, both of which admit customary rights.

Despite divergent tenures and land and forest laws, the use of land for Compensatory Afforestation seems to have followed a linear pattern. Either Compensatory Afforestation lands encroached upon traditional, custom-governed village commons or *nistar* areas (Polavaram and Durgapur), irrespective of their present legal status and actual land-use; or, as in the case of Arunachal, CA lands were carved out of *legally recognised* community-held areas. Because forests support various bundles of rights recognized under the PESA and FRA, the Compensatory Afforestation lands in government-owned forests that we studied were already 'burdened with rights' – to borrow a rather archaic phrase coined by colonial administrators and foresters (Ghosh, 2007) ⁴⁵.

Another feature of the lands we studied is the uncertainty about their official

classification, as well as the fact that actual land uses often did not match the official tenurial status. This emerged clearly both in Arunachal Pradesh and in Telengana and Andhra. In both states, community-held forest areas were identified in official documents as non-forest.

Offset Money for Displacement

CAMPA money is also being used to displace entire villages from wildlife conservation areas. The Rules for the CAF Act lists 'relocation' of villages from protected areas as one of the key activities to be supported by the Compensatory Afforestation Fund. In addition, groups like the conservation NGO Wildlife Trust of India are suggesting that land be bought with CAMPA money to enlarge existing protected areas, which are currently being fragmented because of development projects. A spokesperson from this group has even opined that this is one of the "aims and objectives" of CAMPA ⁴⁶.

The National Tiger Conservation Authority (NTCA), which funds relocation programmes in tiger reserves, has sought release of more funds from CAMPA. In July 2013, the Ministry of Forests and Environment approved a proposal from NTCA for release of 10 billion Rupees from the national CAMPA fund (Chauhan, 2013), despite protests by civil society representatives ⁴⁷ and objections raised by the Ministry of Tribal Affairs (Chauhan, 2013), who noted that the proposed relocation of villages is in violation of the provisions of both the Forest Rights Act of 2006 and the Wild Life Protection Act of 1972, 2006. The Forest Rights Act stipulates that relocation of villages, or any curtailment of forest rights recognized by the act, be subject to the prior informed consent of *gram sabhas*, and must fulfill a host of other conditions, including completion of the official process of recognizing and recording various rights of forest communities. The Wild Life Protection Act also makes *gram sabha* consent mandatory.

The CAF Rules specify that future relocation programmes can be supported from the Compensatory Afforestation fund. Worse, the government of Maharashtra, not even waiting for the CAF Act to be ratified, proudly lists relocation programmes as one of the things that CAMPA money has "achieved". In Tadoba and other Protected Areas of Vidarbha region, it claims, more than 1.26 billion Rupees was spent for displacing 15 villages between 2011 and 2017 ⁴⁸. To make sure that relocation work is not interrupted due to lack of funding, the Maharashtra Forest Department has included in the state's 2017-2018 Annual Plan of Operations CAMPA monies to the amount of 620 million Rupees for relocation of villages ⁴⁹, with another 740 million Rupees appearing in the budget for 2018-2019⁵⁰.

Also contributing to CAMPA-related displacement is the lack of opportunities given to

local villagers to work in newly-arrived plantation projects. In Telengana, Andhra Pradesh and Maharashtra, few community members could find waged work on the plantations, even in areas where they had traditional skills in plantation management. In Maharashtra, meanwhile, the forest villagers in the Tadoba area are, by historical occupation, forest workers. Dating back to colonial days, it was they who created the commercially-valuable plantations of the area. In the Subansiri district of Arunachal Pradesh, similarly, the indigenous Apatani people are traditional tree-growers; at one time they used to raise and maintain a number of plantations within village boundaries. Yet, as our research shows, none of these villagers have been involved in Compensatory Afforestation.

In general, claims for “stakeholder participation” and “community benefits” through Compensatory Afforestation have turned out to be mere fictions, as have similar claims made for other schemes that partake of the logic of environmental trading. As with forest ‘diversion’, decisions about Compensatory Afforestation are controlled by the state and big corporations, with communities relegated to an external role.

Offset Money for Irrelevant Activities

In addition to being used for destructive and discriminatory purposes, CAMPA funds have often also been diverted to activities unrelated to forest conservation or plantations – a state of affairs that is worsened by non-transparent record-keeping and a lack of accountability.

Maharashtra state, for example, has an abysmal record of spending CAMPA money on purposes other than raising plantations on ‘degraded forest land’ and ‘non-forest land’. The Comptroller and Auditor General (CAG) of India’s audit report in 2013 pointed out that 61.9 million Rupees was spent on purchase of vehicles, furniture and other items as well as repair of office buildings. Failing to heed objections by CAG, Maharashtra’s 2017-2018 and 2018-2019 Annual Plans of Operations for activities under CAMPA include money for construction of buildings and purchase of vehicles ⁵¹.

In Chhattisgarh state, misuse of CAMPA money also appears to be rampant. The reports of the Comptroller and Auditor General (CAG) for 2010-11 and 2011-12 show that luxury vehicles for forest officials were purchased with CAMPA funds, including 23 vehicles in 2011-2012 alone. CAMPA funds were also used for the construction of at least a dozen lavish bungalows for officers, in breach of CAMPA guidelines. In January 2012, the Chhattisgarh government decided to use CAMPA money to finance a foreign trip for five senior officials of the state Forest Department, including the Principal Chief Conservator of Forests.

The CAG's audit report of 2011-12 also reveals another instance of misuse of funds in Chhattisgarh. Ignoring the Principal Chief Conservator of Forests' sanctioned spend limit of Rs 15,100 for planting 400 trees per hectare over two years, in Dhamtari and East Sarguja districts, Rs 52,704 was spent per hectare. The CAG audit found out that this overspending added up to a total excess expenditure of 25 million Rupees for the entire state. According to the report, the Forest Department falsely claimed that there was no 'non-forest land' available for afforestation and – apparently – carried out plantations in areas with dense forest cover.

Plantations not done

There is also the possibility of large-scale and all-pervasive corruption. The present research on Arunachal Pradesh/Sikkim testifies that many of the plantations shown on government records have no existence. Maharashtra has an abysmal record of spending CAMPA money on what it is originally meant for: to raise plantations on 'degraded forest land' and 'non-forest land'. There is no verifiable and even partially authentic data on plantations in Maharashtra (Pinjarkar, 2015), let alone on Compensatory Afforestation.

Due to the inadequacy of official documents, moreover, it is impossible even in principle to verify how much or how little CAMPA money is actually being spent on plantations in Maharashtra (Pinjarkar, 2015). Information available on the *E-green watch* website is ambiguous, and our own limited surveys suggest that there is little to show on the ground aside from a few Compensatory Afforestation plantations around the Durgapur Mines area in Chandrapur. Moreover, most of the plantations the researchers did encounter in the Chandrapur area were patchy, and instead of being located in the large areas of genuinely degraded forests that characterize the state, were found to have been improperly hidden away in small forest clearings with an average size of around 400 square meters. It is doubtful whether such locations can be accurately termed 'degraded' forest, since their canopy density tends to be well over the 10 per cent threshold used by the Forest Survey of India to identify degraded or scrub forests. It was difficult to estimate either the aggregate size of the Compensatory Afforestation areas or the number of planted saplings.

In Polavaram in Andhra Pradesh, meanwhile, 11 sites shown as Compensatory Afforestation areas fall in the submergence zone of the reservoir, meaning that even if some planting takes place, it will quickly be wiped out by the rising waters. One more site, near Eluru, is a monsoon submergence area unsuitable for plantations.

In Arunachal Pradesh, finally, many plantations shown on government records, or

claimed by the public National Hydro-Electric Power Corporation (NHPC), the project developer in Lower Subansiri HEP, already to have been established, could not be located in course of this research. The NHPC claims in its Six Monthly Progress Report on Environmental Aspects for the period ending September 2013 that it spent about 810 million Rupees on Compensatory Afforestation in the Lower Subansiri area alone in 2012-2013, as against the original allocation of about 490 million Rupees. No detailed accounting was given for exactly how this money was spent. However, the general report on compensatory afforestation in NHPC website doesn't mention Lower Subansiri at all⁵². This is followed by a detailed project-wise list of Compensatory Afforestation areas, number of trees planted and costs, for 12 projects. Lower Subansiri again isn't mentioned.

According to CAG, Arunachal Pradesh spent only 66.6 million Rupees of CAMPA funds in 2010-2011, of which 17.2 million Rupees was shown as spent on Compensatory Afforestation plantations, and yet no Compensatory Afforestation at all was carried out in the state during 2006-2012. Following the first release of CAMPA funds in July 2009, the CAG adds, there was significant under-utilization in the subsequent period of 2009-2013 in states like Arunachal Pradesh (91 percent). An Expression of Interest notice⁵³ by Arunachal Forest Department, asking for bids from interested parties for monitoring departmental works done under CAMPA in the year 2010-11, including Compensatory Afforestation, lists Compensatory Afforestation and Catchment Area Treatment for Lower Subansiri among works given in the notice, and refers not to plantations proper, but to nurseries. The aggregated cost for works including these nurseries far exceeds the figure of 65.3 million in the CAG report. Our research on Lower Subansiri, however, did not find a single Compensatory Afforestation plantation.

The CAG report of 2013 pointed out that CAMPA money has been spent on building construction and vehicles⁵⁴, as in Maharashtra.

In many other states such as Chattisgarh, Odisha and Jharkhand, plantations reportedly established under both Compensatory Afforestation Catchment Area Treatment were found to dissolve into thin air on a closer look⁵⁵. The present as well as other researches show how false information and notoriously erroneous data on plantations has been posted on *E-green watch*, the centralized data portal maintained by the MoEF (CFR-LA, 2019; Ghosh, forthcoming).

Conclusion

A few simple conclusions:

1. Like offset programmes elsewhere, Compensatory Afforestation in India is a source of state funding. According to one estimate, the CAMPA Fund at present contains more than 500 trillion Rupees⁵⁶. The CAF Act proposes to allot huge amounts of this money to the different states.
2. This will hit forest and other ecosystem communities in two ways. First, CAMPA funds provided to states will end up largely in state forest departments, which will be free to use the money for strengthening the departmental hold over forests, at the cost of people's rights, including legal and constitutional rights. Second, the allotment and prospective allotment of such huge amounts of money to state governments will provide a perverse incentive to speed up the forest clearance process.
3. This, in turn, will accelerate the corporate invasion of forests and forest communities already under way under the banner of neoliberalism. As demand for land for Compensatory Afforestation increases, there are bound to be severe effects on agricultural land and remaining village commons outside officially-recorded forests.
4. As with other offset programmes, these neoliberal land grabs, enclosures of commons, and assaults on community rights will be advertised as a new, efficient 'environmentalism'. The irreparable damage to the environment caused by Compensatory Afforestation will be repeatedly greenwashed.
5. The enormous amounts of easy money available, with few requirements for accountability or transparency, will drive yet more corruption.
6. Attempts to reform Compensatory Afforestation, or monitor its progress better, will be powerless to alleviate its underlying contradictions. Compensatory Afforestation plantations are at best a green mirage, and would be better not attempted in the first place.

What, then, are the ways forward out of the mess that is Compensatory Afforestation?

Of necessity, short-term responses to specific outrages cropping up day to day as a result of various Compensatory Afforestation projects will need to be sustained and strengthened. In addition, actions must be undertaken to ensure that communities affected by deforestation and forest diversion are in control of the disbursement of CAMPA

funds, so that they are not further disempowered. For example:

- Steps must be taken to ensure that money in the Compensatory Afforestation fund is spent as equitably, democratically and transparently as possible. Communities displaced or affected by cases of forest diversion must be given the first crack at this money, so that it can be used for community development works, including development of various sustainable forest-based livelihood programmes. The fund can be routed through local *panchayats* or autonomous councils (where such councils exist) to the concerned *gram sabhas*/community-level institutions. Above all, it must be ensured that CAMPA funds are no longer used for grabbing community land under the pretext of Compensatory Afforestation or shifting villagers from wildlife conservation areas in violation of Forest Rights Act and Wild Life (Protection) Act, 1972.
- In cases where affected communities give prior informed consent, Compensatory Afforestation plantations should be handed over entirely to them. The communities and their legal or customary institutions should be the agents who identify suitable land, species and costs for the plantations, independent of interference by forest departments or other official or corporate bodies.

More broadly, however, the entire system of Compensatory Afforestation and everything that it entails must be questioned. To start with, a review by a transparently-constituted team of environmental experts and representatives of civil society groups must be carried out to look into the Compensatory Afforestation process, including a thorough ground-level fact-finding exercise to determine how Compensatory Afforestation is being executed in the areas where deforestation (forest diversion) is taking place. In particular, the review should look into the question of how land is allocated for Compensatory Afforestation, present as well potential impacts on communities, violations of laws and denials of justice which this and other studies have highlighted, and the issues of non-compliance and alleged corrupt practices that both this study and the CAG audit have brought to light.

More importantly, the existing Forest Clearance mechanism must be dismantled. Instead of facilitating fast-track clearance of development projects that cause deforestation and displace forest communities, the mechanism should start behaving as an environmental instrument. Each proposed case of forest diversion beyond those specifically recommended by *gram sabhas* under relevant provisions of Forest Rights Act should be looked into separately, and judged by its potential environmental impacts at the micro-level as well as the larger ecological landscape level. *Gram sabha* consent for forest diversion projects is already legally mandatory, and this must be reflected in the Forest Clearance Rules themselves. Forest Clearance Rules must also be changed so that they are no longer in breach of the relevant provisions of Forest Rights Act and Panchayat

(Extension to Scheduled Areas) Act (PESA), the Government Order issued by MoEF in August 2009, and the verdict of the Supreme Court in the Niyamagiri-Vedanta case in April 2013, all of which reiterate the primacy of *gram sabhas* in decision making.

In addition, the obviously failed practice of forest offsetting should be entirely done away with, and should have no presence in the Forest Clearance mechanism whatsoever.

To conclude, communities should be the ones who decide whether any forests need to be diverted at all. If and when a community decides on diversion, it should also be in control of any mitigation exercises, with an eye to maintaining access and use necessary for livelihood. This must be ensured regardless of whether local control, access and usage have been officially recorded by the Forest Department. Section 5 of Forest Rights Act provides for community control and access of all kinds of forests, and Sections 3 and 4 of the same Act stipulate that rights of governance control, access and usage have already been vested in forest communities.

Annexe: Chronology of Compensatory Afforestation(1980-2017)

Year	Development relating to the evolution of legal/institutional mechanism of CA and Forest Clearance
December 1980	Forest (Conservation) Act, 1980 passed by the Parliament.
26.12.1980	Template drawn up by the Ministry of Agriculture (the then nodal ministry in charge of environment and forests) to be followed by states/UTs for all proposals relating to deservation of reserved forests and diversion of forest lands for non-forestry purposes.
5.6.1981	In a letter of the then Inspector General (Forests), M.K. Dalvi, to Chief Secretaries of all States/Uts, it was noted that: “The information relating to steps proposed to be taken to compensate for the loss of forest area, the vegetation and the wild life (item 5 of the proforma) is invariably reported in terms of money calculated to be recovered towards the loss of the said forest property. In fact the purpose of this item is to know as to what steps are proposed to be take to undertake compensatory action so that the vegetal cover lost is made good at an alternative site and accordingly the proposal should give details of compensatory allocation of land, plantations, and creation of habitat for the wildlife.”
20 .7.1981	Forest (Conservation) Rules, 1981 framed under Section 4, Forest (Conservation) Act, 1980. The Form drawn up under Rule 6 of the Forest (Conservation) Rules, 1981 merely noted that the “[p]roposed steps to be taken to compensate for the loss of the forest area, the vegetation and wildlife” was to be provided at the time of submitting the proposal by the user agency. It was only subsequently that the steps were elaborated.
1984	Guidelines dated in about March 1984 framed by the FC Division of the MoEF required state governments to, “...indicate as to what steps are proposed to be taken to undertake compensatory plantations so that vegetal cover lost is made good at an alternative site and accordingly the proposal should give details of compensatory allocations of land, plantations and creation of habitat for the wildlife.” (Source: Fourth Series, Vol XLV, No.11, Fourteenth Session, 7.3.1984, unstarred question no. 2370 where reference to the FCA guidelines is provided as No. LT-7895/84)

21.11.1985	Circular No. 2-2/85-FC dated 21.11.1985 issued by the Ministry of Environment and Forests, Government of India. Copy of the circular sought via an RTI application.
2.4.1986	Circular No. 2-2/85-FC dated 2.4.1986 issued by the Ministry of Environment and Forests, Government of India. Copy of the circular sought via an RTI application.
23.6.1989	<p>A set of new guidelines No. 2-3/86-FC dated 23.6.1989 was framed by the Ministry of Environment and Forests, Government of India. These guidelines set out detailed procedures, specifying the agency responsible for afforestation and laying down various obligatory requirements such as identification of equivalent 'non-forest land' or 'degraded forest land', as applicable for raising compensatory afforestation, furnishing details of work schedule, ensuring availability of funds and the mechanism to use them. Lastly, details of the proposed monitoring mechanism were to be included in any compensatory afforestation scheme. The guidelines also stipulated that lands identified for compensatory afforestation were to be transferred to the state forest department and declared as a 'protected forest' (PF) under Indian Forest Act, 1927, before commencement of the project.</p> <p>There was no provision to notify such lands as reserved forest.</p>
1992	<p>Forest (Conservation) Rules, 1981 amended and replaced.</p> <p>Rule 6 of the Forest (Conservation) Rules, 1992 as modified now required a "compensatory afforestation scheme" with details of "non forest area/degraded forest area identified for compensatory afforestation, its distance from adjoining forest, number of patches, size of each patch", a "map showing non-forest/degraded forest area identified for compensatory afforestation at adjoining forest boundaries", "detailed compensatory afforestation scheme including species to be planted, implementing agency, time schedule, cost structure etc", the "total financial outlay...", "certificate from competent authority regarding suitability of area ... and from management point of view" which was to be signed by an officer not below the rank of Chief Conservator of Forests, and "certificate from the Chief Secretary regarding non availability of non-forest land (if applicable)".</p>
October 1992	Consolidated guidelines replacing the earlier set of guidelines on clearance process under the FCA.
1996	Changes made in the format of the Site Inspection report. The Regional Chief Conservator of Forests was required to follow new procedures in making a site inspection report following the 1996 changes.

	<p>Details on whether “land for compensatory afforestation is suitable from plantation and management point of view or not”, whether “land for compensatory afforestation is free from encroachments/other incumbencies”, whether “land for compensatory afforestation is important from Religious/Archaeological point of view”, the number of patches of the lands identified for raising compensatory afforestation and whether “patches are compact or not” were to be provided.</p>
4.6.1996	<p>A letter titled “Site inspections reports received from regional offices for various developmental projects – instructions regarding” issued by the Senior Assistant Inspector General of Forests (Inder Dhamija) to all Chief Conservator of Forests (Regional Offices), Ministry of Environment and Forests, Government of India were instructions requiring the Site inspection report received from the state/UT governments to include a map with details and the total financial outlay for compensatory afforestation.</p>
10.4.1997	<p>By way of a Letter No.11-30/96-FC issued by the then Inspector General (Forests) to all Forest Secretaries of states/UTs, In case of central sector projects degraded forest lands double in size of forest lands diverted for a project were permitted for compensatory afforestation,</p> <p style="text-align: center;"><i>“...without insisting upon a certificate from the state Chief Secretaries as hithertofore...In case it was difficult to locate suitable degraded forest land for such central projects within the time frame...the Ministry will allot areas for compensatory afforestation in degraded forest land bank already identified in either of the states of Madhya Pradesh and Rajasthan as per the cost norms indicated by the concerned Government from time to time”.</i></p>
13.8.1997	<p>Letter sent by the Deputy Inspector General of Forests to all regional CCFs, noting that “while carrying out site inspections not much emphasis has been given to the sites (equivalent non-forest land) proposed for compensatory afforestation”. It was also stated that “[I]t is desirable to have such sites in a compact block and continuous to, or in close proximity to regular forest areas for ensuring better management. The map submitted in the proposal must indicate these sites clearly with respect to existing forest area. These maps could be in 1:50,000 or 1:25,000 scale”.</p>
2003	<p>Forest (Conservation) Rules, 2003 replaced the 1992 Rules.</p>
20.10.2003	<p>Guideline No. F. No.2-1/2003-FC issued “for diversion of forest land for non-forest purposes under the Forest (Conservation) Act, 1980”.</p> <p>These guidelines modified Para 3.2(i) of the consolidated guidelines and</p>

	<p>clarifications issued by the MoEF. Paragraph 8 of these guidelines noted:</p> <p>“Para 3.2(i) deals with Compensatory afforestation of non-forest land and takes into account the difficulty of States/UTs in finding non-forest land for the purpose of Compensatory afforestation. This para now clarifies that the revenue lands/zudpi jungle/chhote/bade jhar ka jungle/jungle-jhari land/civil-soyam lands and all other such category of lands, on which the provisions of Forest (Conservation) Act, 1980 are applicable, shall be considered for the purpose of compensatory afforestation provided that such lands on which compensatory afforestation is proposed, shall be notified as RF under the Indian Forest Act, 1927.”</p> <p>Guideline No. F. No.2-1/2003-FC issued “for diversion of forest land for non-forest purposes under the Forest (Conservation) Act, 1980.” also modified para 4.2(i) of the consolidated guidelines in paragraph 11.</p> <p>Paragraph 11 stated,</p> <p>“Para 4.2(i) stipulates that the non-forest land which is transferred and mutated in favour of the State Forest Department for the purpose of compensatory afforestation, should be declared as RF/PF under the Indian Forest Act, 1927 prior to Stage-II approval.”</p>
31.5.2004	<p>The guidelines required notification of the lands identified for Compensatory Afforestation into reserved forest or protected forest under the Indian Forest Act, 1927.</p> <p>It is pertinent to note that until 2004, land identified for CA was to be notified as protected forest only.</p>
26.09.2005	<p>The Supreme Court passes order to constitute <i>Expert Committee on Net Present Value</i> to determine Net Present Value (NPV) for diverted forests as part of the CA process.</p>
May 2006	<p>Expert Committee on NPV submits its report to Supreme Court.</p>
15.09.2006	<p>Supreme Court judgement makes NPV part of the official CA system retrospectively from October 2002.</p>
July 2006	<p>The ad hoc CAMPA (Compensatory Afforestation Management and Planning Authority) established by the Supreme Court to receive and disburse money paid by corporate users of diverted forest lands. It was to function until the central government set up a similar body and was responsible for the overall management of funds received in lieu of forest land ‘diversions’</p>

	under Section 2, FCA. State CAMPA bodies came up immediately afterwards.
18.12.2006	Landmark <i>Scheduled Tribes and Other Traditional Forest Dwellers(Recognition of Forest Rights) Act</i> , better known as Forest Rights Act (FRA) passed in Indian parliament. For the first time in the history of modern India, forest communities' rights of access to forests have been legally recognized. The Act gives communities a broad range of powers to regulate use of forests traditionally protected by them, which meant community institutions could challenge the very process of forest diversion if necessary.
1.01.2008	FRA comes into force throughout India, excepting Jammu and Kashmir.
03.08.2009	Ministry of Environment, Forests & Climate Change, Government of India(, MoEFCC) issues order F.No.11-9/1998-PC(pt), specifying the procedure and requirements for seeking community (here, <i>Gram Sabha</i>) consent for forest diversion in compliance with the FRA, making such consent mandatory for all applications for forest clearance.
28.07.2016	Compensatory Afforestation Fund Act passed in Indian Parliament, prescribing an elaborate institutional mechanism for the overall management of funds received in lieu of forest land 'diversions' under Section 2, FCA and accumulating in the ad-hoc CAMPA fund.
08.11.2017	MoEFCC issues a new order amending Compensatory Afforestation Guidelines, prescribing establishing of 'land banks' using common lands.

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¹ Official licenses issued by the Government of India to corporations and others for non-forest uses of forest land are called *forest clearances*.

² A notification is a government order, memo or declaration/proclamation – before using a land not officially recorded as forest for compensatory afforestation purposes, it needs to be notified as a government-owned forest under Indian Forest act 1927.

³ Comptroller and Auditor General of India(2013): *Report of the Comptroller and Auditor General of India on Compensatory Afforestation in India*(hereafter referred to as *CAG Report2013*).

⁴ For further information on the chronology of acts, please see the Annex 1 – Chronology of CA.

⁵ Statement by Prakash Javadekar, Minister of State for Environment and Forests, Government of India, Press Trust of India, New Delhi, August 13,2015. See http://www.business-standard.com/article/pti-stories/1-84-lakh-hectare-of-forest-land-diverted-for-non-forest-use-115081301268_1.html.

⁶ Statement by Prakash Javadekar, Press Trust of India, New Delhi, April 28,2015. See http://www.business-standard.com/article/pti-stories/diversion-of-35-867-ha-of-forest-land-okayed-in-2014-govt-115042800615_1.html.

⁷ We refer here to tree plantations of native or exotic species.

⁸ Forest (Conservation) Rules, 1981, GSR719, The Gazetteer of India, Part II-Sec.3 (i) dated 20 July 1981, pp.1763-1764. The Forest (Conservation) Rules 1981 were amended in 1992 and consolidated guidelines were issued in October of that year. Lok Sabha Debates, Tenth Series, Vol. XXXII, Tenth Session, 14.6.1994, Starred question No.30 asked by Mahesh Kanodia (of the Bharatiya Janata Party) on decentralizing of certain powers to the states under the Forest(Conservation) Act, 1980.

⁹ Circular No.2-2/85-FC dated 1.11.1985 noted in Guidelines No.2-3/86-FC dated 23.6.1989, Ministry of Environment and Forests, Government of India.

¹⁰ See Guidelines No.2-3/86-FC dated 23.6.1989, Ministry of Environment and Forests, Government to India. Paragraph 7.3 atp.14.

¹¹ A total of four Interlocutory Applications (IAs) in the Supreme Court considered the question of Compensatory Afforestation, beginning in 1999, when the first of the IA's was filed. These IAs were heard in what is commonly known as the Godavarman proceedings which comprise of two separate writ petitions that concern protection of forests, environment and wildlife. Over the years and following some far reaching and extraordinary orders by Supreme Court, the Godavarman case has snowballed into proceedings of unmanageable proportions. Apart from the mindboggling number of applications that have come to be filed and adjudicated, the Supreme Court has taken on the roles of adjudicator, governor and legislator of forests, environment and wildlife.

When the Court came to hear IAs 419 and 420 from 1999 onwards, which related to permission to resume mining operations in Madhya Pradesh by the National Mineral Development Corporation (hereafter "NMDC"), it began by asking some fundamental questions about Compensatory Afforestation, including the conditions for Compensatory Afforestation, how much afforestation was actually done and the type of trees which have been planted. In addition, it asked what amount was received by the State Government from the user agency for afforestation, how much was utilized and what the present status was. The MoEF was asked to file an affidavit on the money received and utilized for Compensatory Afforestation. NMDC was eventually granted rights to resume mining operations but the Court's query with respect to Compensatory Afforestation was kept alive when it converted the MoEF's original affidavit (a statement showing the position of the cases approved for diverting afforested land stipulation for Compensatory Afforestation under the FCA and the Compensatory Afforestation done, funds to be utilized and actually utilized') into IA 566.

In a number of orders passed in these applications as well as in IA 574, the Court consistently pointed out that it was the ministry's responsibility to monitor Compensatory Afforestation and if the condition was not complied with, the user agency should not be allowed to continue its operations. In 1999, an order was passed asking the MoEF to submit a "comprehensive proposal", suggesting how Compensatory Afforestation should be carried out and what monitoring mechanisms could ensure that such afforestation programmes were regularly supervised. One can ask with good reason why the Court asked for a comprehensive scheme of Compensatory Afforestation in its order dated 17.12.1999, when the law as it then stood was already comprehensive enough. It may indicate the inadequacy or even absence of monitoring that FCA required, but importantly, it provides a classic example of the judiciary encroaching upon the functions of the legislature and the executive.

It was the issue of management of funds collected by state for Compensatory Afforestation that eventually determined the future mechanism and resulted in the setting up of an apex body that would centrally manage and control funds collected towards Compensatory Afforestation and NPV.

See Basavaptna. S (2014): *The concept of compensating forest loss: A legal and policy history*, unpublished, for more details. All legal research for this paper, unless otherwise indicated, borrow liberally from

Basavaptna's work. The **Chronology of Compensatory Afforestation** annexed to this paper also is largely based upon Basavaptna's research.

¹² <https://www.ercindia.org/news>

¹³ Pinjarkar goes on to note that in August 2017, three meetings were held to clear projects involving a total deforested area of 15,027 hectares.

¹⁴ <https://www.ercindia.org/news>

¹⁵ See also Nitin Sethi, *Only 19 projects were denied green clearance from 2008 to Aug 2011*, Times of India, 16 August 2011, http://articles.timesofindia.indiatimes.com/2011-08-16/environment/29891715_1_clearance-thermal-power-projects-mining-projects.

¹⁶ Adapted from http://egreenwatch.nic.in/FCAProjects/Public/Rpt_State_Wise_Count_FCA_projects.aspx

¹⁷ A similar kind of 'land banking' is practiced by oil palm corporations in Indonesia, in order to get capital for investments. Land is located and kept aside to enable future expansions, and not for present use. This system also helps the companies obtain bank loans for oil palm expansion in other areas. See <https://wrm.org.uy/articles-from-the-wrm-bulletin/section1/financialized-capital-and-palm-oil-corporations/>

¹⁸ In a report on depletion of forests in Uttarakhand, soyam lands were explained as "Owned by the revenue department, the civil soyam land is part of the unsurveyed waste land, spread across Garhwal, Almora and Haldwani districts in Uttarakhand". See Vashishtha, A(2013): *No lessons learnt! U'khand gives away forest land for 'non-forest' uses*, 13 October, Millennium Post, Quoted in Basavaptna, Supra Note xii.

¹⁹ F. No 11-423/2011-FC, dated 8 November 2017. The MoEF is also seeking to open up for Compensatory Afforestation "areas falling in wildlife corridors", apparently in order to "improve connectivity between" wild life habitats", as well as "areas falling in and around" all designated wild life conservation areas and "forest areas under direct administrative control" of the State Forest Departments. Clearly, the objective here is to increase state control over forest and common lands currently not administered by the Forest Department by bringing those lands under forest administration through acquiring those for Compensatory Afforestation.

²⁰ See Planning Commission.2001. Address by Shri Mukut Mithi, Chief Minister, Arunachal Pradesh, The N.D.C.Meeting,1stSeptember2001, Vigyan Bhavan, New Delhi. <http://planningcommission.nic.in/plans/planrel/pl49ndc/index.php?state=arunachal.htm>

²¹ Letter dated 11.4.2011No.FOR-1-40/Cons/Vol1-118, Itanagar, *Identification of land for Compensatory Afforestation – regarding*. On file.

²² It is unclear, however, to what extent the Court and the NPV committee took into account unhappy experiences with the application of such concepts in other countries.

²³ *Report of The Expert Committee on Net Present Value*(Here after referred to as *NPV Report*), constituted by the Supreme Court to determine Net Present Value, following the order dated 26.9.2005 by the Supreme Court in Godavarman: p.4.

²⁴ Ibid.

²⁵ Ibid: "the (NPV) amounts are required to be used for achieving ecological plans, and for the regeneration of forest and maintenance of ecological balance and eco-system. The payment of NPV is for protection of the environment and not in relation to any proprietary rights."

²⁶ For the reality of Indian' forest' plantations, see Ghosh. S(2017): *The Green Invasion: Promoting Plantations in India*, World Rainforest Movement Bulletin 233, <https://wrm.org.uy/articles-from-the-wrm-bulletin/section1/the-green-invasion-promoting-plantations-in->

[india/](#).

²⁷ “The (NPV) amounts are required to be used for achieving ecological plans, and for the regeneration of forest and maintenance of ecological balance and eco-system. The payment of NPV is for protection of the environment and not in relation to any proprietary rights.” See *NPV Report*, Supra Note xxiv.

²⁸ The CAF Act defines ‘environmental services’ as “provision of goods such as wood, non-timber forest products, fuel, fodder, water and provision of services such as grazing, tourism, wildlife protection and life support”, “regulating services such as climate regulation, disease control, flood moderation, detoxification, carbon sequestration and health of soil, air and water regimes”, “non-material benefits obtained from ecosystems, spiritual, recreational, aesthetic, inspirational, educational and symbolic”, and “supporting such other services necessary for the production of ecosystem services, biodiversity, nutrient cycling and primary production”.

²⁹ Recommendations of the Central Empowered Committee dated 9.8.2002 in IA 566 of 2000 in T N Godavarman Thirumalpad v Union of India, W.P. (C) No. 202/1995, pending.

³⁰ Order dated 5.5.2006 in T N Godavarman Thirumalpad v Union of India, W.P.(C)No.202/1995, pending. By an earlier order dated 29/30October2002, the Supreme Court directed the MoEF to frame comprehensive rules for the constitution of a body and management of Compensatory Afforestation funds in concurrence with the CEC. The situation is likely to change subsequent to the passage of the Compensatory Afforestation Fund Act 2016, which provides for a permanent statutory mechanism to manage CAMPA funds.

³¹ However, the absence of a mechanism might not be solely responsible for the accumulation of huge unspent funds. In 2013 for instance, the CAG Report pointed out that even in cases where state Forest Departments had money for plantations, not much could be shown on the ground as activities actually undertaken. Instead, CAMPA funds have been used for highly questionable purchases or in a legally questionable manner.

³² *Gram sabhas* can be generally defined as village assemblies, where all adult members above the age of 18 participate. Because there are many customary as well as legal definitions of ‘village’ in India, there can be many forms of *gram sabha*, depending on the specific custom/law under which these are convened. *Gram panchayats* are usually local self-governments, which look after village development. Though the term *panchayat* can also denote the more traditional meetings of ‘five village elders’ in some parts of India, these are mostly elected and legal bodies.

³³ NHPC undated.

³⁴ This happened around 2007. So far as we could find out, the money was paid to the community. There exist clear figures, though.

³⁵ Interlocutory Applications 1205 and 1164.

³⁶ F.No-8/100/2002-FC, Letter from Sandeep Kumar, Assistant Inspector General of Forests, to the Secretary (forests), Government of Arunachal Pradesh, dated 31 March 2006.

³⁷ MoEFCC, Rajya Sabha: in response to Unstarred question 224, Dated 5.2.2018.

³⁸ http://egreenwatch.nic.in/FCAProjects/Public/Rpt_State_Wise_Count_FCA_projects.aspx, last accessed on 23 June 2019

³⁹ Interview with Anil Kumar, Activist, Polavaram

⁴⁰ Ibid.

⁴¹ Notification order WLP10-07/CR/F-1, dated 27 December 2007.

⁴² Forests are divided into Blocks and Compartments by the state Forest Department.

⁴³ Notification WLP10-07/CR/F-1, dated 27 December 2007.

⁴⁴ See also fra.org.in for more details.

⁴⁵ All working plans of the colonial Forest Department used this phrase to explain how forests were reserved. The phrase has also been in use in more recent working plans, in the forest history sections. To the colonial foresters and their post-colonial counterparts, all rights in government forests, including those not yet actually taken over, were treated as 'adverse'. The nature, extent and volume of such adverse rights determined not only the productivity limits of a forest, but also the limits of actual control exercised by the forest bureaucracy. Therefore the colonial and post-colonial forest laws in India (Indian Forest Act 1927, Wild Life Protection Act 1972, now the draft Amendments to the Indian Forest Act 2019, prescribe ways and means of removing the 'burden' of rights 'encumbering' a forest. Because a typical government forest such as a 'Reserved Forest' won't carry any burden of rights, the discourse usually centred around private forests and common lands which were seen as 'burdened' with rights, mainly in the context of their imminent take over. Under Indian Forest Act, Protected Forests could support limited rights, subject entirely to the judgement of the forest official involved. See Ghosh 2007.

⁴⁶ Bhargav, Praveen. 2013. *Making space for the tiger a reality*, The Hindu, April 19, available on <http://www.thehindu.com/opinion/op-ed/making-space-for-the-tiger-a-reality/article4630903.ece>. One of the aims and objectives of CAMPA states, "State CAMPA shall seek to promote:(b) conservation, protection and management of wildlife and its habitat within and outside protected areas including the consolidation of the protected areas;" See State CAMPA Guidelines 2009: quoted in Basavaptna, Supra Note xii.

⁴⁷ "Open letter to MoEF: No more funds for relocation without establishing a democratic process", dated 1 July, 2013.

⁴⁸ Government of Maharashtra, Forest Department: *Achievements of CAMPA 2011-2016*, See <http://mahaforest.gov.in/fckimagefile/2010-11%20to%202015-16.pdf>

⁴⁹ Government of Maharashtra, Forest Department: *State CAMPA Annual Plan of Operations 2017-2018*, <http://mahaforest.gov.in/campa/internal.php?id=4>.

⁵⁰ Government of Maharashtra, Forest Department: *State CAMPA Annual Plan of Operations 2018-2019*, <http://mahaforest.gov.in/campa/internal.php?id=4>.

⁵¹ Government of Maharashtra, Forest Department: *State CAMPA Annual Plan of Operations 2017-2018, 2018-2019*, <http://mahaforest.gov.in/campa/internal.php?id=4>: for instance, more than 16 Crore was kept under the ubiquitous head 'infrastructure' in 2017-2018 APO (18 Crore in 2018-2019), besides more money for 'administrative expenses', 'repairs', 'mobility' and 'contingencies'.

⁵² <http://www.nhpcindia.com/key-areas.htm>

⁵³ F. No. FOR/24/D-4/2003, Government of Arunachal Pradesh, Department of Environment & Forests, *Expression Of Interest (EoI) For Engagement Of Consultant For Monitoring & Evaluation (M & E) Of "Activities undertaken by Forest Department under various schemes"*, Notice issued by P Subramyam, Conservator of Forests (M&E), dated 14/09/2011.

⁵⁴ CAG Report 2013. See Table 34: *Expenditure incurred in contravention of the State CAMPA guidelines and directions of National CAMPA Advisory Council*, p.100. See also, Rajshekhkar, M, *India's forests are in serious decline, both in numbers and health*, Economic Times, April 5, 2012. <https://economictimes.indiatimes.com/indias-forests-are-in-serious-decline-both-in-numbers-and-health/articleshow/12540825.cms>, quoted in Basavaptna, Supra Note xii.

⁵⁵ See <https://indiacaf.wixsite.com/mysite/ghost-failed-plantations> for details.

⁵⁶ As stated by Dr. Manish Sharma, Minister of State, MoEF & CC, Government of India, in response to an unstarred question in Lok Sabha (Unstarred question no. 3589, to be answered on 16.3.2018).