
[The Green Invasion: Promoting Plantations in India](#)

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Forests? Or Plantations?

According to data presented by the Forest Survey of India (FSI) in their biennial State of Forest Reports (SFR), India's forest cover has been showing a consistent increase for the last several years. For instance, the SFR released in 2015 mentions a net increase in the area of very dense forests. How does one explain this data, given the apparent scale of deforestation, including large-scale illegal logging as well as diversion of forests for other uses that results in forest destruction? FSI interprets it mostly as a result of plantation activities undertaken by the state forest departments. However, the same SFR says that 'man-made forests' contain only 5.31 per cent of the total forest area, while 'natural forests' occupy 80 per cent.

We face a riddle here, or several. How much of India's 'increasing' forest cover consists of plantations, or as the FSI calls them, 'man-made' forests? If natural forests are so plentiful, how does one explain the expanding plantations, which, according to the 2015 FAO Global Forest Resources Assessment, have jumped to more than 12 million hectares in 2015 from just under 6 million hectares in 1990? According to another official estimate from 2009, the plantation area in India at the time amounted to 32,57 million hectares, accounting for "17 % of the global forest plantation". (1) Yet another study from 2014 mentions that annually between 1 and 1,5 million hectares has been afforested since 1980. (2)

One question that arises is why the FSI does not maintain systematic and reasonably accurate data about plantations. Also, why routinely include plantations in forest cover figures? Raising similar questions, several studies in recent years have pointed out that India is witnessing severe deforestation and forest degradation, despite FSI's claim to the contrary. (3) It has been observed that while there is no clarity as to how much of the total area reported as forests under SFR is made up of 'forest plantations', it is also not known if natural or secondary forests are being converted to plantations without making this conversion statistically visible (4). Moreover, India's 'native forests' are being eroded steadily. (5)

It is clear that the official agencies in India use the terms 'forest' and 'plantations' interchangeably. All tree plantations, on lands more than one hectare in area, and with a tree canopy density of more than 10 per cent, are treated as forests. Peter Smetacek, an environmentalist based in Uttarakhand, northern India, thinks that this conceptual muddle can be traced back to the Germanic origins of Indian forestry. (6) It is known that Dietrich Brandis, a German forester, introduced the practices of commercial forestry in India. Smetacek observes that in German a '*Forst*' is a plantation of commercially important forest trees, while a 'natural forest' is called a '*Wald*'. Smetacek further observes that because Brandis failed to establish an official difference between *Forst* and *Wald*, forest departments in India had ever since continued to 'plant' forests, without pausing to think that you can only create a '*Forst*' by planting, not a '*Wald*'. Natural forests cannot be planted.

Puyravaud, J. P et al suggest that in India, plantations have steadily replaced forests over the years. (7) Comparing FAO and FSI data, they conclude that while the total forest cover rose from 660,337 km² in 1995 to 690,250 km² in 2005 (FSI), plantations expanded from 146,200 km² to 300,280 km² over the same time interval (FAO). Consequently, the authors point out, forests have declined from 514,137 km² in 1995 to 389,970 km² in 2005, which translates into a mean loss of 2.42 per cent per year. What type of trees came up in the 'planted forests'? The most prominent plantation species are eucalyptus, poplar, acacia, silver oak, rubber, teak and pine. (8) According to FAO, nearly 45 per cent of India's 'forest plantations' are fast-growing, short-rotation species. (9) In particular, India's forests, countryside and farmlands have been filled up with various species of Eucalyptus, at great social and ecological costs.

'Social Forestry' and Eucalyptus

The Eucalyptus colonization of India is closely related to the much-hyped social forestry project, which was sponsored by the World Bank. It has been observed that the so-called 'social forestry' project was, in its early days, largely a product of development aid. (10) The ambitious project led to large-scale afforestation mainly in the 1970s and 1980s when plantations were established at a rate of 1.4 million hectares a year. (11) In the states of Uttar Pradesh, Karnataka and West Bengal in particular, Eucalyptus trees spread like wildfire, evoking and leading not only to a raging environmental controversy, but also social discontent and active resistance. Eucalyptus plantations reportedly drained huge volumes of water from the plantation sites as well as their neighbourhoods downstream, sucked the soil dry of nutrients so that other plants could not come up. They also release toxic substances into the soil, suppressing growth of native species. (12) In Karnataka, the plantations have allegedly resulted in severe drought-like situations, forcing the state government to ban the cultivation of all Eucalyptus species. (13)

Though Eucalyptus plantations are usually short-rotation and known to bring quick monetary returns, the benefits are limited mostly to the rural elite. Even in case of state projects like the social forestry, it is the landed and the upper-caste sections of the rural populace who benefitted from the plantations. (14) Moreover, communities have shown explicit concern over the diversion of fertile food producing land as well as pasture to Eucalyptus plantations. During the 1980s, the area under the traditional staple food, ragi, had declined significantly in Karnataka. In the Kolar district, for instance, between 1977 and 1981, ragi cultivation dropped from 142 thousand hectares to 48 thousand hectares, producing a marked reduction in yield from 175 thousand tonnes to just 13 thousand and increasing its price by 200 per cent in the market. (15)

A rich legacy of resistance

State-run plantation programmes have provoked intense resistance from forest communities and peasants. People who had traditionally depended upon forests for food and livelihood resisted the conversion of forests to monoculture plantations of exotic/introduced species such as Eucalyptus and Teak. Peasants opposed Eucalyptus plantations in particular because these often led to wholesale desertification of their agricultural landscapes, besides encroaching upon village commons as well as good cultivable lands. Major movements against plantations flared up across India in the 1960s, 1970s and 1980s. The now famous Chipko movement in the Garhwal Himalayas started as a people's protest against clear-felling of hill forests for commercial interest. (16) The 'Jangal Katai' (cut forests) Movement in the tribal areas (today's Jharkhand) of erstwhile Bihar came up as a response against the forest department's efforts to raise commercially valuable Teak monocultures in natural Sal forests. (17) Peasants of Karnataka opposed a project of Eucalyptus plantations in the village commons by a forest department backed private company. (18) And the *adivasis* (indigenous

people) of Bastar in the undivided village of Madhya Pradesh put up a strong resistance against a World Bank-funded plantation of exotic blue pines. (19)

More plantations, more attacks on community rights

Undeterred by the legacy of the popular resistance against plantations, the Indian government continues to promote huge plantation programmes. While its flagship Green India Mission (GIM) has a target of raising 5 million hectares of new plantations for 2024, the government promises to spend more than 15 billion US dollars in the coming years for 'afforestation' purposes. A major part of the money would come from the Compensatory Afforestation Fund, previously known as CAMPA (Compensatory Afforestation Management and Planning Authority), expressly after a new legislation called Compensatory Afforestation Fund Act has been enacted in 2016 (See [article in 217 WRM Bulletin](#), August 2015). Another contested scheme of leasing out 40 per cent of identified 'degraded forests' to private corporations for raising plantations is in the pipeline.

Because the government agencies responsible for carrying out the afforestation programmes do not clarify where the huge amount of land required for raising new plantations would come from, there is every reason to suspect that community lands—cultivable as well as pasture—would be encroached upon. Besides, in the name of restoring degraded forests and raising compensatory afforestation, community rights over forest commons would be violated. Sporadic incidents of land-grabs for plantations have already been reported from Odisha, Chattisgarh, Telengana and Andhra Pradesh. In Pidkia village in the Kandhamal district of Odisha, for instance, land for which title has been issued to communities under the Forest Rights Act has been fenced off. (20) In other areas, *podu* (swidden cultivation) lands have been taken over and forests have been cleared. (21) In Chattisgarh, village farmlands are being filled up with plantations of Eucalyptus and Teak. (22) In Telengana and Andhra Pradesh, village commons, *podu* lands and agricultural areas have all been enclosed for raising plantations that are supposed to compensate the loss of forest lands by the controversial Polavaram dam project (23). Apart from the state-run plantation programmes, big private players such as ITC (Indian Tobacco Company) and JK Paper Limited (24) have virtually taken over hundreds of thousands of hectares of agricultural lands in Andhra Pradesh, Telengana, Odisha and Chattisgarh for raising plantations of mainly Eucalyptus (25).

Community access and control over forests are being undermined in many ways. Though the new Compensatory Afforestation Fund Act is yet to come into force and its rules have not been framed, money from this and the Green India Mission are flowing to the state forest departments. Defying the mandate of Green India Mission, its funds are going to the Joint Forest Management Committees set up by the forest department, and not community institutions such as *Gram Sabhas* (26).

As the attacks upon communities and their forests and village commons escalate, it is expected that the resistance will also grow correspondingly stronger. As in the past, the *adivasis* and other poor and landless people in India will not allow the new green invasion to take root.

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(1) The Ministry of Environment and Forests, Government of India (2009), *India Forestry Outlook Study*, FAO, Bangkok

(2) Ravindranath, N.H et al (2014): *Forest area estimation and reporting: implications for conservation, management and REDD+*, in *Current Science*: 106(9)

(3) Ravindranath, N.H et al, *ibid*. See also, Ravindranath, N.H et al (2012): *Deforestation and forest degradation in India – implications for REDD+* in *Current Science*, 2012, 102, Puyravaud, J. P et al (2010): *Cryptic destruction of India's native forests* in *Conservation Letters*, 3: 390–394, Gilbert, N (2012): *India's forest area in doubt*, in *Nature*, 2012, 489,14–15.

(4) Ravindranath, N.H et al(2014), *ibid*.

(5) Puyravaud, J. P et al, *ibid*.

(6) Smetacek. P (2017): *Missing the woods for the trees: How India's forests have been lost in translation – in plantations*, in *Scroll.in*, August 25th 2017.

<https://scroll.in/article/807903/missing-the-woods-for-the-trees-how-indias-forests-have-been-lost-in-translation-in-plantations>, last accessed on 25 August 2017.

(7) Puyravaud, J. P et al, *ibid*.

(8) The Ministry of Environment and Forests, *ibid*, Puyravaud *ibid*

(9) FAO. (2001), *Global forest resource assessment 2000. Main report*, quoted in Puyravaud *ibid*.

(10) Sargent, C, (1998): *Natural Forest or Plantation?* In Sargent, C, and Bass, S, (1998):

Plantation Politics. Earthscan, London, quoted in Jo Lawbuary (2004): *Eucalyptus Planting in 'Social Forestry' in India: Boon or Curse?* <http://www.ganesh.co.uk/Articles/Eucalyptus.htm>, last accessed on 25 August 2017

(11) Lawbuary, *ibid*.

(12) Shiva, V, Bandyopadhyay, J, (1985): *Ecological Audit of Eucalyptus Cultivation*. The English Book Depot, Dehradun

(13) Bangalore Mirror, May 17, 2017: *Karnataka Govt. bans planting Eucalyptus*,

<http://bangaloremirror.indiatimes.com/bangalore/others/chronology-of-a-eucalypto/articleshow/58703790.cms?>, last accessed 25 August 2017. See also, Joshi, M and K.

Palanisami(2011), *Impact of Eucalyptus Plantations on Ground Water Availability in South Karnataka*, ICID 21st International Congress on Irrigation and Drainage,

15-23 October 2011, Tehran, Iran

(14) Saxena, NC, (1992): *Adoption of a Long-Gestation Crop: Eucalyptus Growers in North-West India*. In *Journal of Agricultural Economics*, Vol.43, No.2, pp 257-267. and Nesmith, C, (1991):

Gender, Trees, and Fuel: Social Forestry in West Bengal. In *Human Organisation*, Vol.50, No.4, pp337-348, quoted in Lawbuary, *ibid*.

(15) Lawbuary, *ibid*.

(16) Guha, R(1989): *The Unquiet Woods*, Oxford, Delhi

(17) Damodaran, V (2005): *Indigenous forests: Rights, Discourses and Resistance in Chotanagpur 1860-2002*, in Cederlof, G & Sivaramskrishnan, K(Eds): *Ecological Nationalisms*, Permanent Black,

Delhi.

(18) Ramchandra Guha and Martinez Alier, J (1998): *Varieties of Environmentalism*, Oxford, Delhi

(19) Saxena, N C (1994): *Forest, People and Profit: net equations for sustainability*, Planning Commission of India

(20) Madan, G(2017): *How Tree Plantations Are Violating Citizens' Land Rights in an Odisha Village*, The Wire, 20 July 2017, <https://thewire.in/159763/tree-plantations-violating-citizen-rights-in-odisha>, last accessed 25 August 2017

(21) Madan, ibid and Nandi, J(2016): *How Odisha is cutting old forests for new*, <http://timesofindia.indiatimes.com/home/sunday-times/How-Odisha-is-cutting-old-forests-for-new/articleshow/54633844.cms>

(22) Interview with community representatives, Chattisgarh.

(23) Ghosh, S. (2017): *'Compensating' loss of forests or disguised forest offsets? A study of Compensatory Afforestation in India*, Forthcoming.

(24) See http://www.itcpspd.com/Development_of_our_Plantations.aspx#, last accessed 25 August 2017 ; and http://www.jkpaper.com/index.php?option=com_content&view=article&id=32&Itemid=33, last accessed 25 August 2017

(25) See letters from the Ministry of Environment, Forests and Climate Changes, Government of India to State Forest Departments of Chattisgarh and Odisha: F. NO. 9-11/2014/GIM-CHH, Govt. Of India, Ministry of Environment, Forest and Climate Change, Green India Mission, dated 02.08.16--also, F. NO. 9-11/2014/GIM-AP, dated 12.07.2016, F. NO. 9-11/2014/GIM-ODISHA, dated 02-08-2016

(26) The *Gram Sabha* is the open assembly of all adult residents in a '*gram*' or village. It is an independent body and can come up in all forest areas with a population of traditional forest dwellers, irrespective of whether such forest settlements are officially recognized as villages.