



POLICY BRIEF ON FOREST ECOSYSTEM

A Case Study of East Godavari District, Andhra Pradesh

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INTRODUCTION



In the current global focus on sustainable development, especially in the context of an urgent response to the phenomenon of climate change, the forest ecosystem plays a crucial role. The dynamics among the key stakeholders in this forest ecosystem – communities, markets and Government – come to fore in the tussle for the ownership and control over the natural resources, which are found abundantly in the forest ecosystem. The Government takes an upper hand in deciding the direction of the policies that favour the markets over the forest communities. This policy brief is an attempt to provide a rationale for a balancing act to course correct the skewed colonial policy orientation of exploiting the natural resources by disregarding the legitimate habitat and livelihood rights of the forest communities.



Definition of Forest: UNFCCC, FAO, etc.

Forests can be defined in several ways. One can focus on the legal classification of land use (with or without vegetation), or one can dwell on the kind of vegetation. However, one cannot find a definition of 'forest' in both the important national legislations: Indian Forest Act 1927 and Forest Conservation Act 1980.

The Supreme Court of India in its order dated 12.12.1996 in WP No. 202/95, has defined the words 'forest', and 'forest land' occurring in Section 2 of F.C Act as:

"The word 'forest' must be understood according to its dictionary meaning. This description covers all statutorily recognized forests, whether designated as reserved, protected or otherwise for the purpose of Section 2(i) of the Forest Conservation Act. The term 'forest land', occurring in Section 2, will not only include 'forest' as understood in the dictionary sense, but also any area recorded as forest in the Government record irrespective of the ownership."

The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act 2006 states:

"The word 'Forest land' means land of any description falling within any area and includes unclassified forests, undemarcated forests, existing or deemed forests, protected forests, reserved forests, sanctuaries and national parks".

India is yet to evolve a comprehensive definition of the word 'forest'.¹

However, there is one definition that is considered official and accepted by many national government, institutions and other organizations, which has been developed by the Food and Agriculture Organization (FAO) of the United Nations. FAO has defined 'forest' as:

*"Land with tree crown cover (or equivalent stocking level) of more than 10 per cent of the area or more than 0.5 hectares. The trees should be able to reach a minimum height of 5 metres at maturity in situ."*²

However, this definition does not include the category of wooded land as forest as well as land that is predominantly under agricultural or urban land use.

Besides, there are other categories of forests:

- Natural forest, which is a forest composed of indigenous trees and not classified as forest plantation
- Forest plantation, which is a forest established by planting or/and seeding in the process of afforestation or reforestation. It consists of introduced species or, in some cases, indigenous species³

The above definition of forests and categories do raise an important question for the purpose of our policy brief: Why this exclusive focus on trees? What about the other flora and fauna, forest dwellers that comprise a 'forest ecosystem'? For them the forest is like a 'home', and it provides them with everything they need for their well-being, such as food,

medicine, water and protection.

This is why organizations of forest communities, who depend on forests, along with other organizations, activists and experts committed to forest conservation challenge the way FAO defines 'forest'. They demonstrate that this definition opens up access to forests for private pulp and paper product industry, thus negatively impacting the ability of the forest dependent communities to live with dignity in the forest ecosystem.

Hence, a forest ecosystem is a dynamic complex of plant, animal and micro-organism communities and their abiotic environment interacting as a functional unit, where trees are a key component of the system. The tribals, and other forest dwellers, with their cultural, economic & environmental needs and livelihood activities are an integral part of the forest ecosystem.

A Case Study of the Forest Ecosystem: East Godavari District, Andhra Pradesh

In the context of attempting to understand the increasing State ownership of forests resources in India, we examine the policies and legislations from 1,770 to date. This may enable us to assess the impact of this ownership on livelihoods of the forest dwellers in the forest ecosystem of East Godavari District in Andhra Pradesh.



FOREST POLICY AND LEGISLATIONS

Brief history (with special focus on the East Godavari District, Andhra Pradesh)



By 1770 the British acquired state control of some of the forested tribal areas in the Eastern Ghats from small rulers and zamindars and appointed muttadars (hereditary local chiefs) to administer these areas, especially to prevent tribals from doing shifting cultivation. When the tribals responded with a series of rebellions, the hill estates were given special status, exempting them from normal civil and judicial laws. From 1839 a series of legislations were enacted resulting in increasing reservation of forests

and administrative control of the tribal areas. The cart roads in the hill tracts were made motorable, opening the area to professional traders, moneylenders and contractors, leading to commercial exploitation of forests and settled agriculture, creating a new class of tenants and labourers.⁴

The Forest Acts, 1865, 1874, 1927 and the Forest Policy Resolution, 1894, progressively deprived the forest dwellers of their traditional rights, on one hand and on the other hand, paved the way for the diversion of natural resources from the subsistence economy to market-oriented production.



The colonial system of forest ownership and management was continued even after 1947 with hardly any changes. The State's monopoly over forest ownership has had drastically impacted on forest communities and their subsistence economy.

The Forest Policy, 1952 addressed the demands of the raw material for forest-based industries such as pulp, paper and plywood by prescribing that the claims of communities near forests should not override the national interests, and that the use of forest land for agriculture should be permitted only in very exceptional cases. This policy gave priority to defense, communication and vital industries in the name of national interest. The provisions of the policy denied the community property rights of the people.⁵

The 1952 National Forest Policy was replaced by the National Forest Policy of 1988. This policy was considered to be better than the earlier one, but it neglected to address some important areas. On the positive side, the policy highlighted the importance of conservation of the forests; advocated 33% forest cover with a 60% forest cover in mountainous and hilly regions; reiterated the need to carry out afforestation, social and farm forestry on a large-scale; and more importantly,

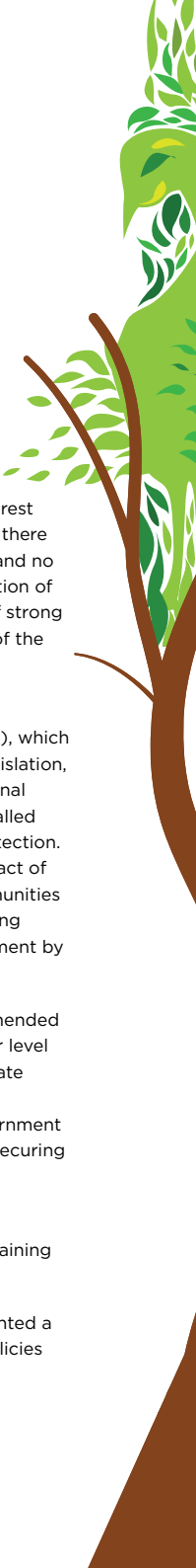
recognize the customary rights of the forest dwellers. However, on the negative side, there was no scope for peoples participation and no effort was made to ensure the co-operation of the forest dwellers; lacked a provision of strong machinery to co-ordinate the activities of the Forest Department; and it was not region specific.


The Wildlife Protection Act, 1972 (WLPA), which was the first national comprehensive legislation, led to the creation of five hundred National Parks and Sanctuaries, also termed as called Protected Areas (PAs) or their legal protection. These Protected Areas have had an impact of unsettling or displacing the forest communities from their traditional habitats and creating fauna-human conflicts as well as harassment by the forest officials.

The Forest (Conservation) Act, 1980 (amended in 1988) was enacted to provide a higher level of protection to the forests and to regulate diversion of forest lands for non-forestry purposes. Under this Act, no State Government can authorize such conversion without securing Central Government's approval.


The Environment Protection Act, 1986 is considered to be of a great value in sustaining legal action for forest conservation.

The Forest Policy of 1988 (NFP) represented a major paradigm shift from the earlier policies and this shift began to take some shape through the introduction of Joint Forest Management in India in 1990.





After 1950, most of the tribal areas of East Godavari District became a legally distinct entity, 'Scheduled Areas', under the Fifth Schedule of the Constitution, which provided for the administration and control of these areas, where the Scheduled Tribes are a majority. These Scheduled Areas also have the highest forest cover.



The Panchayati Raj Act introduced in the 1950s did not link the Panchayati Raj institutions with those responsible for forest management. In 1955, the State while continuing the process of reservation, introduced mono-cultural plantations by clear felling parts of natural forests. This resulted not only in the destruction of natural forests but also allowed forest contractors and industries to extract timber indiscriminately. Since the rights of many tribal settlers were not legally recognized as many of them had no land records or pattas, more forests were taken over or encroached, either by the Government or by other outside settlers. The State Government regularized these 'encroachments' in 1972 and again in 1980 through the flawed settlement process in connivance with the corrupt revenue officials.

The National Commission on Agriculture in 1976 recommended clear-felling and establishment of industrially valuable plantations in degraded or other natural forests, which laid the foundation for the establishment of the Andhra Pradesh Forest Development Corporation (APFDC).

In 1990, the Union Government formulated Joint Forest Management Policy, which proposed that degraded forest lands could be handed over for reforestation and regeneration to local communities, with conditions relating to a share in the forest produce (including timber), and the responsibilities of villages towards conservation.



In 1992, Andhra Pradesh adopted Union Government's Joint Forest Management Policy. This was perhaps the first step towards any kind of state support for participatory management of natural resources in Andhra Pradesh.

In 2000, the Government's proposal to hand over some degraded forests including joint forest management areas to industry, was met with massive opposition from all sectors including community members, academics and activists.⁶

Following the 73rd amendment of the Constitution, the Panchayats (Extension to Scheduled Areas) Act was enacted in 1996 by the Central Government and by the State Government of Andhra Pradesh in 1998, empowering village level institutions and conferring the rights (and in the case of the Scheduled Areas, the ownership over Non-Timber Forest Produce (NTFP) and many other decision-making powers to them. However, the 'Rules' were brought into force only in 2011. Despite these provisions, the Girijan Cooperative Corporation (GCC) enjoys the monopoly on most valuable NTFP. The forest-dependent communities can collect the nationalized NTFP but cannot sell it in the open market. On the other hand, not much attention has been paid towards development, management and marketing of NTFP that is of lower commercial value but meets most local livelihood needs.

The Biodiversity Act 2002 was enacted in pursuance of the United Nations Convention on Biological Diversity 1992. The preamble to the Act borrows the objectives as laid down

in the Convention and says that the Act is to "provide for conservation of biological diversity, sustainable use of its components and equitable sharing of the benefits".

The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 (FRA) recognises and vests diverse pre-existing rights over forest land. These include rights over occupied forest land, rights to ownership of Minor Forest Produce (MFP), Community Forest Resource (CFR) rights, rights over produce of water bodies, grazing rights (both for settled and trans-human communities), rights over habitat for Particularly Vulnerable Tribal Groups (PVTGs) and other customary rights. The most critical right, which has a bearing on forest governance and on the welfare of tribal communities and other traditional forest dwellers, is over Community Forest Resources which provides Gram Sabhas the right to conserve, protect and manage forests. The undivided state of AP started implementation of the FRA in 2008. The main focus was on the recognition of individual forest rights under section 3(1) (a). The state Governments data also shows large areas of land being recognized under CFR rights under section 3(1) (i). In practice, however, there has been no recognition of Community Forest Resource Rights till date in AP.⁷

In April 2015, the Ministry of Environment, Forests and Climate Change, (MoEF and CC) has made public its draft policy on Reducing Emissions from Deforestation and Forest Degradation (REDD+) to implement the mechanism that aims to create the framework to provide monetary incentives by transferring financial benefits from REDD+ to forest communities for protecting forests, which are major carbon sinks.



The Compensatory Afforestation Fund Management and Planning Authority (CAMPA) Act, 2016 provides for an appropriate institutional mechanism of funds under the public accounts of India and the public accounts of each State and crediting thereto the monies received from the user agencies towards compensatory afforestation, additional compensatory afforestation, penal compensatory afforestation, net present value and all other amounts recovered from such agencies under the Forest (Conservation) Act, 1980.

The latest Draft National Forest Policy 2018 reiterates the need to maintain at least one-third of India's total land area under forest and tree cover and two-thirds of the area under forest and tree cover in the hilly and mountainous regions to prevent soil erosion and land degradation and also to ensure the stability of the fragile ecosystems. It also mentions integrating climate change mitigation and adaptation through REDD+ (reducing emissions from deforestation and forest degradation in developing countries); implementing green accounting; managing green spaces in urban environments; and establishing a credible monitoring and evaluation framework. However, it is being critiqued for its over-focus on increasing productivity from forests.

FOREST AREA AND COVER IN THE SCHEDULED AREAS OF EAST GODAVARI DISTRICT

To get a closer picture of the ground reality, it would be helpful to dwell on the types of forest, forest cover and examine the key features of the tribal communities in the Scheduled Areas of East Godavari District.

Types of forest

Three-fourths of the forest area of the district is hilly. The hills are the outliers of the Eastern Ghats and flank the main range. The major groups of formations found in hilly areas of East Godavari District are (as per the revised Champion's Forest Types):

• Southern tropical dry deciduous forests

The upper canopy, usually rather uneven and not very dense, is formed by a mixture of trees, mostly deciduous during the dry season.

The lower canopy is almost entirely deciduous. A few evergreens or sub-evergreens are mainly confined to the moist and sheltered spots. An undergrowth of shrubs and bamboos are usually present. Climbers are comparatively few but include large woody species. The greater part of these forests is situated on hill sides with shallow stony soil and the growth is more or less of one type. The remaining forests are situated in shallow valleys or on flat or gently sloping ground, and the growth varies with configuration, rock and soil. Patches of good forests occur on better soils and are known locally as lankas. The term lanka is used to denote the thick good forest patch, which

is found in the midst of ordinary forest in the plains. These lankas are generally found in the foothills where good soil accumulates. Good forest is present due to deep and fertile soils.

• Southern tropical secondary moist deciduous forests

This type of closed forest of medium to good height including a number of dominant species intimately mixed and a good many second storey trees including some evergreens. Climbers are heavy and the undergrowth is shrubby. This type occurs on the hill slopes having an elevation of 30-90 metres with gneiss as underlying rock in Rampachodavaram and Yellavaram areas.⁸

Forest Cover

The AP State has 36,914.77 sq.km. of notified forest cover which is 22.73 per cent of its total geographical area. The data of forest cover is prior to the merging of 4 mandals of Khammam District into East Godavari District after the formation of Telangana State.⁹

The forest cover in the Kakinada Division is 2807.62 Km² which is 25.97% of the geographical area. In terms of the forest canopy density classes, the Division has 67.18 Km² of Very Dense Forests (VDF), 1996.70 Km² of Moderately Dense Forests (MDF) and 734.74 Km² of Open Forests (OF).

The area of the Scrub is 30.89 Km², Non-Forest 244.03 Km² and Water Bodies 152.85 Km².

The distribution of the forest cover of the Division is shown in figure below:¹⁰

Forest Range	VDF	MDF	OF	Total
Addateegala	515.15	30,594.63	7,225.05	38,334.83
Eleswaram	3,585.22	22,506.37	2,942.12	9,033.71
Gokavaram	74.35	12,739.64	9,411.62	22,225.61
Rajavommangi	366.41	18,633.81	5,311.13	24311.35
Rampachodavaram	1,117.27	73,108.79	38,222.68	112,448.74
Sudikonda	492.96	21,490.37	7466.56	29,449.89
Total	6,151.36	179,073.61	70,579.16	235,804.13

KEY ASPECTS OF FORESTS-BASED COMMUNITIES IN THE SCHEDULED AREAS OF EAST GODAVARI DISTRICT

Tribal Communities: The mandals of the Scheduled Areas of the district are Addateegala, Rajavommangi, Maredumilli, Devipatnam, Y. Ramavaram, Gangavaram and Rampachodavaram (and after the formation of Telangana State, 4 more mandals Chinturu, Kunavaram, V.R. Puram and Tetapaka). The tribal population of East Godavari district comprises of six tribal groups: Konda Reddy and Konda Doras (shifting cultivators), Koya Dora (cultivators preferring low land area), Konda Kammara (black smiths), Konda Kapu (settled as well as shifting cultivators) and Valmiki (mostly literate, employed as village servants and also practicing petty business). Majority of the tribals in the agency area are Konda Reddy and Koya Dora with a population 41,685 (33.9%) and 30,263 (24.6%) respectively. Other tribes are Konda Dora (8.8%), Konda Kapu (13.1%), Kammara (13%) and Valmiki (6.6%). In the tribal hierarchy, Konda Reddy is considered to be a superior tribe followed by Koya Dora and Konda Kapu. Valmiki is considered as lower tribe in their hierarchy. The notable feature is that all tribes participate in ceremonials irrespective of high and low status.

Culture: Historically, three factors linked these hill-communities together: first, a largely self-sufficient economy based on shifting cultivation; second, the shared religious beliefs; and third, the overarching muttadari system. Even today, we can observe that strong feelings of community are prevalent, particularly at the clan and village level, and are manifest in several tribal practices. For example, it is a common practice to share the produce of certain trees in the village and to have mutual cooperation in the clearing of new land and harvesting crops.

Economy: The economy in the Scheduled Areas is agro-forest based. Though the tribals mainly subsist on agriculture of one type or another, the forest plays a vital role in their economy. Shifting cultivation is still being practiced. With increased crop cycles and



declining fallow period in shifting cultivation practices in recent decades the impact of traditional agricultural practice is more severe on the forests. Livestock is another major source of livelihoods in the forest fringe villages, which in turn depend extensively on the forest for various inputs. People rear both bovine and ruminant livestock and forests and other local common land are the major source of grass and tree fodder. Open grazing in the forest is the conventional rearing practices for forest fringe communities.

Thus, the forest provides a variety of food, shelter and medicines, besides Minor Forest Produce (MFP) for both domestic and commercial use. These include adda leaves, tamarind, soap nut, nux

vomica, gum, hill brooms, etc. Even the settled cultivators also partly subsist by collecting edible roots and tubers, fruits and hunting.¹¹

Regarding the relationship of tribals with the forest, the Committee on Forests and Tribal in India (1982) stated that “they are not only forest dwellers but also for centuries they have evolved a way of life which, on the one hand, is woven around forest ecology and forest resources, on the other hand, ensures that the forest is protected against the degradation by man and nature” by evolving their own conservative systems. These traditional systems of conservation of resources were ensured through restrictions on using the economically useful species. These not only included a long fallow period in the rotation of shifting cultivation but also selective retention of valuable trees while felling for cultivation. Hence, there cannot be any development of forest without development of the forest-dwelling tribal communities.

KEY POLICY ISSUES OF FORESTS AND TRIBAL COMMUNITIES IN EAST GODAVARI DISTRICT

Deforestation: Extraction of Timber, Forest Based Industries

In the early 1970s the Forest Department began extracting timber from trees of all kinds from the interior and from semi-accessible areas in three of six ranges. Private contractors were allowed to work freely resulting in illicit felling even outside the allotted area. The coupes of the bamboo working circle sold to private contractors, were also subjected to over exploitation and unsystematic working affected the bamboo growth adversely. Over exploitation of bamboo forests had led to several areas being rendered incapable of regeneration. The thick

and rich growth cover along the banks of the Godavari was felled to cure Virginia tobacco. After 1975 the Forest Department established three logging divisions in Rajahmundry. By 1985, these divisions felled all tree growth leaving no forest worth felling (the 50,000 strong labour force in forest operations has now reduced to about 5000). The forest department established a sawmill in 1964 with an annual requirement of 10,000 cum., of wood and other forest-based industries were depended for wood on Rampa forests.¹²



The major forest-based industries in the district of East Godavari are Andhra Pradesh Paper Mills, Godavari Plywood Industry, Matchwood Industry (4 units), Private Saw Mills (123 units) and other commercial units like sugar, sago factories (60 units), tobacco barns (3556), motor vehicle body building unit and Fisheries Development Corporation. Besides these industries, there are four units of matchwood Industry in the district, which mostly used the species like buruga,

gumpena, garugudu, dudippa, peddamanu and tapasi. The demand for raw material for these industries is about 2000 cum., annually, which comes to an average of 500 cum., per unit, which they are obtaining from the departmental extracted timber that is sold in the public auction. Besides the forest-based industries timber and bamboo were sold in the Forest Department depots at various places. In all there are 125 timber and bamboo depots in the Rajahmundry circle.¹³



Shifting Cultivation: Boon or bane

The major source of food production for the tribals has been shifting cultivation, which is an integral part of the economy in tribal culture. Shifting cultivation practices are linked with the ecological, socio-economic and cultural life of the tribals and are closely connected to their rituals and festivals. Historically, two types of podu (shifting) cultivation are practiced, namely chalaka podu (practiced in the plain areas) and konda podu (confined to hill slopes). An ITDA base-line survey (1990) identified that 48 per cent of among total households in the Scheduled Areas of East Godavari District is engaged in podu cultivation. But as a result of application of forest legislations curtailing the access to forest areas, the fallow periods have been reduced to around 2-3 years, or even less. Now most households have at most two podu patches which are rotated at 2-3 year intervals. The primary emphasis is given to food crops for consumption although pulses and legumes are frequently sold to obtain cash. The general crops grown in podu cultivation are the following, millets and cereals: ragi, sama, kora, maize, bajra, jowar, budama paddy; pulses and legumes: redgram, blackgram, horsegram, greengram and beans; oilseeds: niger and castor, etc.¹⁴

The area under podu is very small, particularly when compared to the area under the control of Forest Department. The latter is mostly used for monocultural plantations, destroying the natural forests. But the Government considers podu cultivation and other activities of tribals on which they depend for survival as among the major reasons for the destruction of forests.


Under the Social Forestry Programme in the 1990s plantations of mango, cashew, orange custard apple, etc., were introduced and implemented by covering 43,424 hectares in all the ITDA areas of Andhra Pradesh. In the Rampa agency area 18,707 hectares were covered under this programme up to 1989-90. And in 1990 under IFAD, 17,250 hectares were proposed for plantations of different fruit trees. However, when the trees began to yield fruit, most of the tribals have been leasing the plantation to non-tribals at the time of flowering or for 2-5 years, who in turn provide loans to tribals for their consumption needs.

People's Rights over Forest Lands and NTFP

The colonial government, especially from the beginning of the 20th century had forcibly usurped the right to the collection of the minor forest produce, which hitherto was enjoyed by the hill tribes. Till the enactments of the PESA and FRA Acts, there were hardly any legislative provisions for the protection of the rights that the tribals had enjoyed for centuries. They were allowed only to gather wood for domestic use and all other rights over the forests were vested in the Forest Department. The Andhra Pradesh Forest Act of 1967 provided for free grazing of animals in all the Reserve Forests except in areas closed for silvicultural reasons and other prohibited areas are allowed. In 1974, tribals were allowed free removal of monsoon grass and removal of thorns for bonafide use, i.e., for fencing agricultural fields. The tribals living in the Reserve Forests were permitted to collect MFP/non-timber forest produce (NTFP) for their domestic use and the Government permitted the Girijan Cooperative Corporation (GCC) for the collection of MFP/NTFP, from the Reserve Forests. However, the real tragedy of the consequences of State monopoly control over forest and people

of Rampa began in 1970, when the forest department felled 5272 hectares of virgin forest to raise eucalyptus, in the name of scientific management. The tribals collect varieties of minor forest produce (MFP)/non-timber forest produce (NTFP), which includes fodder and grasses, raw materials like bamboo, canes and leaves, gums, waxes, dyes and resins and several forms of food including nuts, wild fruits and honey. National Commission on Agriculture (1976) has classified MFP/NTFP as: i) Fibers and flosses ii) Grasses (other than oil producing), bamboo, reeds and canes iii) Oil seeds iv) Dyes v) Gums, resins and oleoresins vi) Leaves. These often play a critical part in the livelihood of the tribals. Most of the MFP/NTFP come from forests although some trees yielding MFP are found on private fields and also provide valuable assets, and subsistence and cash. On a rough estimation it has been revealed that between 10 -15 per cent of income of an average tribal family is obtained from the collection of MFP/NTFP. Tribals acquire the skills of collecting MFP/NTFP from the elder members of their family. They learn to identify the useful species, seasons of availability, the locations and plants in which they are found.





Farmers collect small timber, poles, and other materials from the forest for agricultural implements and fencing the agricultural fields, leaf litter for manure, herbs, and medicinal plants to deal with pests and so on. The agriculture in this region is predominantly subsistence and crop production highly vulnerable weather conditions and wildlife attack.

The production of grain is insufficient to sustain a family throughout the year. In the lean period, however they live exclusively on forest produce. Variety of fruits, berries, cucumber, raw mushrooms, roots, leaves, etc., are consumed. Rats, mice, squirrels, birds, lizards, etc., were roasted and consumed. From January to June, when the fields are cleared, they depend upon toddy. Further tribals depend on forests not only for timbers for their houses and other implements but also for herbs for various diseases that are common in the agency area. The Rampa area is known for varieties of MFP/NTFP on which tribals almost exclusively depended in the past for their cash requirements. However, the availability of food and MFP as well as herbs have declined due to the clear felling and plantation works of the Forest Department.¹⁶ Under the FRA by 2016, in Andhra Pradesh, 1,50,345 individual forest rights claims were filed for forest land amounting to 1.35 lakh hectares. Of these, 83,874 claims for an area of 80 thousand hectares were recognized constituting 59 per cent of the total

claimed land. Claims are often rejected at sub-divisional or district levels without hearing the claimant and this is in violation of the FRA Rules. Officials also often seek documentary evidence, rejecting other evidences which are admissible by the law. The hearing of any appeal should be held at village level where the claimed land is situated, and after following the proclamation procedure. But this procedure is not being followed for hearings. Even the claimants are not communicated about the rejection of their claims which would have enabled them to take further legal recourse.

The FRA recognizes three broad sets of rights over forests: Individual Forest Rights (IFRs), Community Forests Rights (CFRs) and Community Forest Resources Rights (CFRRs). The CFRs are ensured under the FRA under Section 3(1), which include access and dispose of minor forest produce, fishing rights and other products of water bodies, grazing, and tenures of habitat and habitation rights of PVTGs etc. The Government of AP has not yet recognized the CFRRs and several CFRs like the habitat and habitation rights of Particularly Vulnerable Tribal Groups.

Also, tribals are being affected both in the forest areas chosen for diversion for non-forest purposes and also for creation of compensatory afforestation in either forest or other category of lands. As per the provisions of Forest Conservation Act 1980, no forest land shall be converted for non-forest purposes without a prior approval from the central government. The CAMPA Act, 2016 was enacted to create an appropriate institutional mechanism of funds to deposit the costs of Compensatory Afforestation (CA), Net Present Value (NPV), etc., in lieu of diversion of



forests. This Act supports industrial interests in forest areas and dilutes the Forest Rights Recognition Act 2006, which was enacted to remedy historic injustice and recognize their rights over forest land and community forest resources for remedying historic injustice done to Adivasis and other traditional forest dwellers.¹⁹ Diversion of forest land without recognizing the forest land rights of tribals for State induced development projects is another dimension of problem. For instance, in 2010 the Ministry of Environment and Forest (MoE&F), Government of India, gave final clearance for

diversion of 3,731 hectares of forest lands for the Polavaram Project without recognition of forest rights under FRA. The community forest rights and resources rights are yet to be recognised in the submergence villages. The State Government seems to be denying community rights of the claimants to facilitate construction of dams, mining, and other infrastructure projects. The consent of Gram Sabha as well as the Mandal Praja Parishad under the State Amendment PESA Act is essential to go ahead with the project proposals in the Schedule areas of the State.²⁰



Forests and Climate Change

Deforestation and forest degradation are a major cause of global carbon dioxide emissions, but sustainably managed forests are important carbon sinks. Protecting forests, improving forest management and establishing new forests all increase the climate-mitigation benefits of forests. Carbon stocks in harvested wood products in use can also be increased.

Thus, forests have a central role to play as the world confronts the challenges of climate change, food shortages and improved livelihoods for a growing population. If predictions prove correct, the world will need to shelter, feed, cloth and provide livelihoods for another two billion people by 2050.

This presents a staggering challenge, particularly “as human activities are estimated to have caused approximately

1.0°C of global warming above pre-industrial levels, with a likely range of 0.8°C to 1.2°C. Global warming is likely to reach 1.5°C between 2030 and 2052 if it continues to increase at the current rate”. This will impact water availability, agriculture, and severe weather events. By 2025, two-thirds of all nations will confront water supply stress, and 2.4 billion people will live in countries unable to provide sufficient water for basic health, agriculture, and commercial needs.

For centuries, forests have served as a kind of natural safety net for communities during times of famine or other events that impact agricultural and food production. Forests feed people and the animals on which they might depend for trade or meals when crops fail.

At the same time, many of the world's remaining forests are under increasing threat because of human activities and climate



change. Although the pace of deforestation has slowed in some regions, the world still loses about 14.5 million hectares of forests each year. In parts of the Amazon rainforest, rising temperatures and changing rainfall patterns are connected with the increased risk of catastrophic dieback with dangerous local, regional and global consequences. In the Congo Basin, a recent analysis of deforestation trends published by the World Bank, highlights the intense pressure that agricultural expansion, mineral exploitation, growing energy needs and an improved transportation network will pose to the integrity of this vast rainforest area.²¹

Under the United Nations Framework Convention on Climate Change (UNFCCC), REDD+ is a financial instrument to incentivize conservation and sustainable management of forest and thereby reduce GHG emissions from deforestation and forest degradation. It aims at compensating the forest owners in developing countries for conserving the forests by putting a value on the forest carbon stocks. The idea of REDD+ is based on two basic premises. Firstly, the countries conserving forests forgo the

economic gain of harvesting them as well as the benefits from alternative land use and hence need to be compensated for the same. Secondly, costs involved in conservation and sustainable management of forests needs to be shared by other countries too as the forests provide a range of offsite ecosystem services that benefits all. Given the livelihood linkage of forests in many developing countries, forest conservation imposes several direct and indirect costs. Hence, any financial mechanism to compensate some of these costs by developed countries would encourage sustainable management of forest in developing countries.

Decentralized forest management through devolution of power to local communities is one of the important components of the sustainable management of forest under REDD+ regime. Besides this, REDD+ can also improve the livelihoods of forest-dependent communities by adding value to the collected forest produce by putting monetary value to the enhanced carbon stocks in the forest that could incentivize forest conservation and management.²³





Forest and Sustainable Development Goals (SDGs)

In the Millennium Development Goals (MDGs), forests featured only under MDG 7 as one of the indicators for reversing the loss of environmental resources and did not recognize the multi-functionality of forests and their full contributions to all three dimensions of sustainable development.

However, the Sustainable Development Goal 15 ('Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification and halt & reverse land degradation and halt biodiversity loss') includes two targets specifically related to forests. Target 15.2 is the main one: by 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests, and increase afforestation and reforestation by x% globally together with one 'means of implementation' of Goal 15; Target 15.b: mobilize significantly resources from all sources and at all levels to finance sustainable forest management and provide adequate incentives to developing countries to advance sustainable forest management, including for conservation and reforestation. Target 15.1, on ecosystems, also contains a reference to forests: by 2020 ensure conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements.

Of course, many of the other goals and targets in the SDGs are potentially relevant to forests, directly or indirectly, including, for example, those covering agriculture, industrialization, economic growth, cities, sustainable production and consumption, climate change, governance, finance and trade.

Forests contribute to opportunities for sustainable development: wild edibles from forests and trees



outside forests contribute to food security by providing nutritious food supplements all year round, including during periods of hardship. In many parts of the world, fuelwood is the main source of energy for cooking. Forests generate employment in remote rural areas and are the basis of small enterprises, many of which are run by women and generate income that is invested in improving livelihoods, including the education of children. Wood is a renewable resource, and forests mitigate climate change, contributing to low carbon economies. Forests provide medicines and contribute to human health and a healthy environment. Their ecosystem services, including

climate regulation, soil stabilization, regulation of water flows and biodiversity, as well as their role as a gene pool for agricultural crops and home of pollinators, play an important role in support of sustainable agriculture. Sustainable management of the world's forests aims at enhancing all these multiple forest functions and improving the provision of goods and services.²⁴

Hence, the Sustainable Development Goals should reflect the recognition of these positive contributions to realizing the full potential of forests to sustainable development.

Forest and Community Resilience

The need to pursue community resilience is a key factor in the sustainability of forest-dependent communities in the context of the impacts of climate change. However, forest-dependent communities are complex and dynamic entities that are constantly exposed to social and ecological forces of change to which they must adapt in order to be sustainable. Also, forest management policies affect different communities differently, depending on their individual characteristics and circumstances.

The process of community response to change is a multi-level phenomenon that occurs not only through collective action at the community level but also through autonomous responses at lower levels, such as individuals, households and groups.²⁵

When we look at the community resilience in the context of a forest ecosystem, we have also to consider the homesteads along with the forests. The trees of homestead forests provide food, fodder, medicinal herbs, building materials, as well as income and employment in agro forestry, horticulture, vegetable gardens, fisheries and livestock production.

The Social Forestry Scheme of AP in the early 1990s was perhaps intended to build community resilience through participatory management of natural resources. However, the programme was not very successful as not enough community lands were available for plantation; communities were distrustful of the Government and in many cases refused to participate for fear of their limited common lands being taken over by the State; and benefits went mainly to big farmers. The programme did, however, provide some space for positive action amongst some local communities, supporting NGOs and interested Government officials. Local communities, who managed their village forests as per their customary rights found the Joint Forest Management (JFM) promoted by the Government unacceptable, since it tended to erode decision-making at community level and introduce a situation where the Forest Department played an overpowering role in decisions relating to their forests.

RECOMMENDATIONS: THE WAY FORWARD



Community Resilience

- Support initiatives of planting and protecting productive but extreme climate tolerant species to maximize homestead and community forest resources and enhance adaptive and resilience capacity of community people to shocks and slow onset changes
- Encourage communities to restore degraded forests lands by domesticating various economically important forest species: broom grass (*Thysanolaena maxima*), nara mamidi (*Litsea glutinosa*) and gum karaya (*Sterculia urens*)
- Protect and conserve medicinal plants (especially the endangered); domesticate wild edible tubers; sustainably harvesting and process wild non-edible oilseeds
- Replace unsustainable extraction of timber, fuel wood, MFP/NTFP with mechanisms sustainable harvesting of the forest produce
- Encourage alternative livelihood opportunities and energy sources like biogas, solar energy and improved cook stoves
- Promote greater involvement of the local communities in the management of forest and devolution of decision-making in the access and ownership
- Encourage documentation of natural resources being conserved and managed by local communities



Conclusion

We have seen how the livelihoods of the communities living close to forest and within the forest are symbiotically linked to the forest ecosystem. They depend on the forest for a variety of forest products for food, fodder, agriculture, housing and an array of marketable minor forest produces. However, the modern demands of development, which focuses more on economic growth has adverse implications on the forest cover. The forests are also subject to several other pressures like over grazing, shifting cultivation and vulnerabilities to forest fires, etc.

The colonial forest policies progressively deprived the forest dwellers of their traditional rights and paved the way for the diversion of natural resources from the subsistence economy to market-oriented production. After Independence, the State has upheld its monopoly over forest ownership, which has adversely affected the livelihoods opportunities of forest dwellers (especially tribals), and their subsistence economy and created a wedge in the traditional forest-tribal relationship.

Till the enactments of the PESA and FRA Acts, there were hardly any legislative provisions for the protection of the rights that the tribals. Under community pressure, there has been a number of policies, legislations, guidelines and programmes that have acknowledged

the rights of the forest dwellers over the forest resource. But the colonial imbalance in terms of ownership continues unabated in one form or the other.

The role of forests as carbon sinks that can mitigate the impacts of climate change has been scientifically recognized. The implementation of REDD+ will benefit through conservation of forest ecosystem, in turn improving their livelihood and simultaneously increasing the forest cover of the country. The SDGs in general and SDG 15 in particular and the targets set offer a global agenda for sustainable development, where forests play a major role as they contribute to food security, employment, health and ecosystem services.

The need to pursue community resilience is a key factor in the sustainability of forest-dependent communities in the context of the impacts of climate change. However, forest-dependent communities are complex and dynamic entities that are constantly exposed to social and ecological forces of change to which they must adapt in order to be sustainable. Also, forest management policies affect different communities differently, depending on their individual characteristics and circumstances.



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Laya is an NGO based in Visakhapatnam, Andhra Pradesh. Laya's journey for over 25 years aims at empowering the adivasi communities through a range of initiatives that demonstrate an alternate paradigm to development which is inclusive, equitable and sustainable. Laya functions as the secretariat of INECC.

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