

# Forest Issues from Colonial State Control to post Independent India: A Study on Some Policy Issues on Forest Management (With Special Reference to Odisha)

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## **Abstract**

*When man, perhaps, conceived the idea to survive it was the forests that provide shelter, food, water, and all required basic substance to live, grow and develop. With the growth of modern civilisation declining forests and increasing environmental polluting elements in the world the importance of forests realised by the human beings living across the world. It provides most valuable services, like the lungs, soaking up polluting particles, carbon sequestration by forests is a boon to mankind who is adding tonnes of carbon to the atmosphere, reducing noise decibels by intercepting sounds, helping to maintain hydrological cycle, and supports world's 80 per cent terrestrial bio-diversity. Forests also had been providing most necessary goods and services for survival of wildlife as well as forest dwelling communities. The whole economic cycle of forest dependent communities revolves around the forest condition. So, for the forests survival, the management approaches saw a paradigm shift from control by government to making partner to local stake holders to protect, conserve, manage and share the benefits accrued. Reforms introduced in the management of forest resources, particularly institutional arrangements through amendments of existing law or enactment of new legislative measures commensurate with policy perspectives, the paper tries to capture the changes in forest management vis-a-vis forest cover in Independent India with a special reference to Odisha.*

**Key words:** JFM, VSS, FC, FRA, EDC.

## **Introduction:**

Forests are nature's gift to this planet as it provides very substance for sustenance of various creatures including survival and development of human Civilisation. It plays a leading role in maintaining bio-diversity and ecology. Survival of human being is unimaginable without forests. The most important function of forest is it supplies the oxygen component of air which is very much needed for survival of the living beings. It provides most valuable services, like the lungs, soaking up polluting particles, carbon sequestration by forests is a boon to mankind who is adding tonnes of carbon to the atmosphere, reducing noise decibels by intercepting sounds, helping to maintain hydrological cycle, and supports world's 80 per cent terrestrial bio-diversity. Forests also had been providing most necessary goods and services for survival of wildlife as well as forest dwelling communities. The whole economic cycle of forest dependent communities revolves around the forest condition. The source of agriculture implements, containing shelter making materials, fodder for animals, food items like fruits, roots, leaves, nuts, tubers, flowers, bamboo bush (Karadi) etc and fountain water for consumption, forest provides almost all needs of forest dwelling communities and other dependants.

The environmental importance of forests is not confined to a particular country as its benefits relating to Socio-economic and ecological services accrued to the other nations beyond its boundaries. The cosmopolitan

characteristics of forests, water bodies including surface water or ground water, and other resources provided by nature, if inappropriately exploited or used its adverse affect also felt by other Nations.

The Brazil declaration in June 1992, by the United Nations Conference on Environment and Development (UNCED), on conservation of all types of forests across the World gained its importance in the International policy forum on priority basis as the Planet is facing wrath of Nature. The traditional approach of limiting the functions of forests to a particular Nation is no more significant, as the cosmopolitan features of forests like oceans and other natural resources with similar characteristics. The importance of forests in preserving biodiversity, sequestration of carbon, providing all most all needs of forest dwelling communities and its economic contribution has been largely viewed as indispensable for survival of the planet. Hence, ecological issues considered inseparable from economic issues (Ullsten, 1991).

The term "environmentally sustainable economic development", more commonly known as "sustainable development", coined by the World Commission on Environment and Development (WCED), *our common future* is considered as a mechanism to sensitize each and every communities dwelling across the World. In this report, sustainable development is defined as "economic development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (WCED, 1987).

Forests have been providing life-support system to diverse plants, animals and renewals of its ecosystem severally destroyed and "sustainable development" lost its importance resulted in "mosaic structure of natural forests in tropical" (Lamb, 1990) and "temperate" (Suffling, Lihou and Morand, 1988) regions is a "reflection of past disturbances attributed to natural causes".

Forest resources have been supporting the livelihood concern of forest dependent/ dwelling communities, like scheduled tribes (STs) and scheduled castes (SCs). The daily subsistence needs of poor people fully or partly secured from forest resources. The contribution of sustainable forest management to developing economies as diverse as it provides food security, housing, income and employment for the poor people who inhabits in and around the forest vicinity. The onset of British colonial rule in India upset the harmonious regime that existed and fabric of symbiotic relationship between the forests and fringe communities by way of enacting acts to implementing legal coercive methods to restrain the age old unrestrained rights over forests. The marginalised communities dwelling in and around the forests no more free to utilise forests to earn livelihood as per their own will and desire.

Joint Forest management (JFM) is an important institutional mechanism introduced and implemented in Odisha, involve people from grass root level to protect local natural resources i.e. forests and improve ecology and economy of state in general and local people in particular. One of the most vital point insert in the National Forest Policy, 1988 is to involve local people to protect, conserve and manage the forests assign to them. The JFM resolution, 1988 has limited benefits to members of protection committees in lieu of their protection responsibilities i.e. member households genuine requirement of timber and non timber forest produces free of royalty. Whereas in Odisha the JFM resolution 1993 issued an offer of "50% share in any major/ final harvest and 100% of intermediate products to forest protection committee", popularly known as Vana Sarankshana Samiti (VSS) in Odisha. The policy objective of JFM is to improve the physical quality of life of poor and deprived section of people who had been dwelling in and around forest vicinity and utilise their traditional knowledge to protect and grow forest to sustain environment while meeting local forest produce requirement of people to improve their resource base to improve their living standard on sustainable basis. The collaboration of forest department with local community is aimed at to bring sustainable development for people, by offering those benefits and government by growing forest crown density.

### **The Study Objectives**

The study has try to (I) analyse various policy issues relating to forest and people in Odisha, (II) to examine the status of forest in Odisha, (III) to assess the JFM issues and progress in Odisha.

### **Community Participation in Forest Management:**

Forests play a very crucial role in supporting the livelihood concern of forest dependent/dwelling communities, particularly disadvantaged sections like scheduled tribes (STs) and scheduled castes (SCs). Many poor people depend fully or partly on forest resources for their daily subsistence needs. The contribution of sustainable forest management to developing economies as diverse as it provides food security, housing, income and employment for the poor people who inhabits in and around the forest vicinity.

With the passage of time, tribal communities who have been living in harmony with forests for generations marginalised their role and in advent of assertion of “Rule of Law” limited their participation in forest management is dependent on the “benevolence of the regulatory regime”. The natural renewal process unable to cater the need of community anymore, therefore, a plan-programme by the government needs to be intervened. Through the JFM initiative, the paradigm shift of the State approach from user’s centred approach to multi-stakeholder, community based approach to address the conflicts over natural resources conservation and utilisation resulting destruction (Guha, 1989, Peluso 1992, 1993, Neumann 1992). These studies pointed out a harsh State, bent on exploitation of nature and labour. The notion of the sovereign power of state can exert its will over marginalised section of communities has come under serious scrutiny (Chhatre 2003a,2003b, Peluso and Vandergeest 2001, Seberwal 1999, Sivaramakrishnan 1999, Yang 1989). Some studies conducted by Agrawal 1999, Agrawal and Gibson 2001, Baker 2005, Jeffery and Sundar 1999, Sivaramkrishnan 1999 on access to resources by community and state have found that “is negotiated or contested with in and beyond the community”.

Garrett Hardin (1968), "the tragedy of the commons" reflects the lacunae of common property management and subsequently, Ostrom’s approach to manage common pool resources suggesting the way to escape from such situations. Her postulates revolve around the target to mitigate the problems of common pool resources through governing the polycentric institutional arrangements. Ostrom, 1998 viewed that the user of community property are “trapped in an inexorable process from which they cannot extract themselves”. So, regulation measures should be initiated and imposed on them by the external authorities. Elinor Ostroms in her book “Governing the Commons” deals with so-called common-pool resources (CPR) to focus the institutions dealing with CPRs, their structural efficiency and governance and management of CPRs from the perspective of collective action (Ostrom, 1997, 2007, 2009).

Various studies found positive impact of community involvement and participation on sustainable development of protected forest areas (Bahuguna, Luthra & Rathore, 1994, Lay 1996, Sadler 1990, Wells & Brandon 1995, Wight 1993). Some other studies pointed towards conducting in-depth research studies to address the problems of community people on issues relating to forest management. Various studies and reports by Arnold 1991, Blackburn 1993, Chaplin 1989, Gadgil 1992, Rastogi 1995, Sharma 1995, had been indicated success of forests management due to community participation. The United Nations Food and Agriculture Organisation has not only advocated for the people oriented forest management system but also strongly recommended that the a forest policies of all the countries should ensure the participations of communities at the decision making , implementation of activities and sharing of benefits.

The Concept of JFM was given a shape through a government resolution of June 1990, wherein detailed guidelines were issued, to ensure people’s participation in forest management. The salient feature of guidelines includes:

No ownership or lease rights to beneficiaries over forest lands.

Access to forest lands and usufructuary benefits .Beneficiaries are entitled to usufructs like grasses and non-timber forest produces (NTFPs).They will be entitled to share in sale proceeds only on successful protection of forests.No grazing will be allowed in forest land protected by the villagers. They can collect grass without cost to promote stall feeding.

The benefits of people's participation available to only village communities and debarred commercial and other interests.

No agriculture will be permitted on forest land.

JFM activities should be under an approved working scheme.

### Forest Policy and laws:

Forests were treated as provider of livelihood requirement and command respect of people living in and around of it. Since time immemorial forest dwellers had been managed their natural habitat and gathered their day to day livelihood requirements from the forest. They had their own set of tradition and customs, which contributed immensely for harmonious existence of forests and people. During Pre-British period forest was managed by tribal villagers. There was no restriction on them and had enjoyed absolute freedom. The British turned this social management into a matter of state after they had administrative control over large part of India, it had looked towards forests to gain access to natural resources including forest resources for the sake of 'development' and 'scientific management'. Squeezing the age old right over forests by fringe communities to enrich Exchequer, by exploiting natural forest resources provide ample scope for commercial expansion and protection of imperial interest of British Empire.

During the period of British Rule in India, in 1856 the then Governor General Dalhousie for first time, appointed a German botanist Dietrich Brandis as Inspector General of Forests to the Government of India. Dalhousie suggested that the teak and timber should be declared as state property and be strictly regulated the trade in teak. As a result of which the Forest Department first came into being in 1862. Under Dietrich Brandis, the forest Department was organized and the first Forest Act was enacted. Armed with the legal sanction through enactment of 'the Forest Act' 1864 imposed and regulated the forest exploitation, management and preservation, and severely restricted the natural inherited rights of forest dwellers collection of forest produce in around the forests in favour of the "public benefit". Its application was limited to the forests under the control of government and had not any control over forests under private ownership. So, the British India had to face stiff resistance from the tribals, forest inhabitants and local communities who were viewed it as interference by Alien administration on their traditional rights. As a result tribal uprising against the colonial rule to assert their rights put the Colonial Government in many troubles. But the Colonial government established its ownership of forests through indiscriminate acquisitions. But, the process of alienating forests from fringe communities further worsen the condition of already marginalised sections of society.

In 1875, a new Forest Act was enacted, classified forest into: (1) Reserved forests, exclusively for the use of Forest Department (except certain concessions like gathering of the fruit of the trees and cutting of the grass, on payment of small dues), (2) Protected Forests, managed by the forest department but the people of surrounding villages had certain rights with them. (3) Village forests are communal property of the villagers. Claims over land and forest produce were to be notified to record, after demanded by village people, The Act came into force in 1878 and settlement of forests was started around 1880. The new forest regulations, embodied in the British policy formally initiated in 1894, negated the tribal conviction that the forest belongs to them. The first policy statement of British India in 1894 considered forest communities as "intruders" and "aliens" over the state property and forest lands were transformed mere sources of revenue for the British Government (Rangarajan, 1996). Equipped with the legal power to maintain strict state control over forest utilization, the 1878 act provided the underpinnings for the 'scientific' management of forests to develop compact blocks of forest for commercial timber production.

There were several factors contributed for consistent surplus from forest department includes demand for forest produces such as fuel wood, furniture, timber for building doors/windows and other equipments by urban people. While supply was facilitated by the improved communications which the railway network brought about (Tucker, 1979). The Act define '**Land at the Disposal of the Government**' includes all unoccupied land, whether assessed or un-assessed; but does not include land the property of landholders as defined by section 1 of Act VIII of 1865, Madras (namely) all persons holding under a sanad-milkiyat-i-

istimrar, all other Zamidars, shortriyamdars, jagirdars, inamdars, and all persons or farming the land revenue under governments; also all holders of land under raiyatwar settlements, or in any way subject to the payment of land revenue direct to Government and all the registered holders of land in proprietary right. 'Forest produce' according to the Act was includes the following things when found in , or brought from, a forest(that is to say):- minerals (including limestone or laterite), surface soil, trees, timber, plants, grass, peat, canes, creepers, reeds, fibres, leaves, moss, flowers, fruits, seeds, roots, galls spices, juice, catechu, bark, caoutchouc, gum, wood oil, resin, varnish, lac, charcoal, honey and wax, skins, tusks, bones, horns (The Madras Forest Act No. V of 1882).

The Indian Forest Act, 1927 passed to increase government control over the forest lands and regulate people's right over forest and produce based on the principle of '*res nullius*' which implied that any property which does not have a documented legal owner can be appropriated by the government.. Taken together, all the rights of the tribal people in the forest were called 'nistari', which means to be free (in this case exemption of tax).The Act was built upon the premise that the State was the owner and custodian of all forest resources, and tribal communities were transformed in to subservient communities who were recipients of NTFP as a concession rather than their natural right. Execution of the Acts and rules by forest officials with the high-handed treatment and unjust exaction on the part of forest officials made Von Furer-haimendorf (1982) to comment that, "thus arose a conflict between the traditional tribal ownership and the state's claim to the entire forest wealth"(p-80). Again keeping tribal plight in view he had pointed out that: "Alienation of tribal lands cannot be prevented without depriving non-tribal landowners of the chance to enlarge their holdings, a curb on exploitation by moneylenders interferes with the activities of local businessmen, and any attempt to eradicate corrupt practices of minor officials diminishes the income such persons are accustomed to derive from dealings with ignorant and illiterate tribal."(P- 48).

The Indian Forest Act, 1927, under section 80 described Management of forests, the joint property of Government and other persons.—

If the Government and any person be jointly interested in any forest or waste-land, a in the whole or any part of the produce thereof, the State Government may either—

Undertake the management of such forest, waste-land or produce, accounting to such person for his interest in the same; or

Issue such regulations for the management of the forest, waste-land or produce by the person as jointly interested as it deems necessary for the management thereof and the interests of all parties therein.

## Post-Independence Forest Policy

After Indian independence, there was some rethinking on the issue of forest policy. The National Forest Policy was issued as a Government of India Resolution in 1952. In this policy, the rights and privileges have been converted into mere concessions such as:

to take the water for agricultural purposes; to take small timbers for making agricultural implements; to remove the stones for the agricultural purpose; to graze the domestic animals in forest grasslands under passes; to hunt for small game which are normally eaten by the tribals to collect fuel on head loads; to collect the minor forest produces (MFPs)/non-timber forest produces(NTFPs) and sell to the forest departments; and to perform slash and burn cultivation where they are permitted.

The National Commission on Agriculture (NCA) in 1976 recommended the classification of forests into; a) protected forests-forests on hill slopes and other localities vulnerable to erosion and degradation; b) productive forests- the commercial forests for the production of timber for national economy; and c) social forests- on wastelands for satisfying the rural communities. The NCA recommended the drastic reduction of people's right on forests and also suggested stop of free supply of forest products to tribals and controlled by the forest departments. The 'social forestry' scheme all forestry activities had to be taken in private lands and

non-governmental forest lands through agro-forestry, farm forestry and extension forestry. “Free supply of forest produce to rural population and their rights and privileges have brought destruction to the forests and so it is necessary to reverse the process. The rural people have not contributed much towards the maintenance or regeneration of the forests. Having overexploited the resources, they can not in all fairness expect that somebody else will take the trouble of providing them with forest produce free of charge (NCA, 1976 Pp-354-355)”. The failure or inadequate implementation of 1952 Forest Policy summarized by NCA (1976) is these words, “As administration of forests vests entirely with the states, they are the ultimate authority to implement a policy decision. The provisions of the policy have not been fully implemented by them for various reasons. No systematic programme is drawn up to extend existing tree-lands and establish new ones on lands belonging to defence, railways, public works departments, universities and colleges and other local authorities etc.

Relinquishment of forest land continued to occur for various purposes, and the notion that forestry might be permitted on sufferance on residual land not required for any other purpose continued to hold sway. No concerted efforts were made to bring the recommended 60 per cent of the area under forests in mountainous tracts liable to erosion and 20 per cent in the plains... Hardly any of the principle on forest grazing was implemented.” It is invited ire of some intellectuals. Inaccessible habitats of tribes became considered as hub of development due to rapid technological advancement, and acquisition of required area of land with out much difficulty. The Land Acquisition Act, 1894 (and amended in 1984) is indiscriminately invoked to alienate tribal’s land in the name of public interest. Multi-purpose dams, afforestation, refugee settlement, highway projects, biosphere reserves, national parks in forest areas displace forest dwelling people in general and tribe people in particular. For the greater good of the Indian people, few tribals should have to make sacrifices in terms of surrendering their survival bases and accept the development projects as ‘fait accompli’.

### **The revised draft also stresses the fallowing activities**

The people oriented policy which calls an immediate moratorium on tree felling in hilly areas and this to remain effect till all degraded forests are effectively rehabilitated. (ii) The problem of forest conservation and protection not to be separated from the life style of tribals. The approach must shift from dependence on law and bureaucracy to dependence on the conscious and voluntary participation of the masses. This presupposes education of masses as well as re-education of forest employees. (iii) The avarice of the forest contractor and purchaser-Agent system in nationalised items of minor forest produce to be recognised and dealt with firmly. (iv) Meeting day to day needs of forest dwellers, tribals and villagers living in adjoining areas of the forest to be given priority. (v) Programmes for development of forest villages to be prepared on priority basis by ensuring tenure rights on land under their cultivation. (vi) Family oriented programmes may be identified in forestry sector to improve the economic condition of the rural population.

There are several factors responsible for loss of forests includes rising population pressure, diversion of forest land to non-forest use, rehabilitation of displaced persons, industrialization, grazing of livestock, swidden on shifting cultivation, commercial exploitation of forests etc. For instance Spurgeon observed “while commercial logging does remove the best trees, the greatest harm to the forests is caused by the practice of shifting agriculture. This practice annually destroys 10 million hectares of high forest and causes steady decline in the fertility of the land... In the past the soil’s fertility returned to abandoned areas over a period of 25 to 30 years, as a result of natural processes. But as population pressures increased, the cultivators returned to their abandoned sites much sooner, and the period of natural bush fallow was progressively shortened (Spurgeon, David 1982, P-11).In Odisha 1.41 lakh tribal families resort to shifting cultivation. This practice is bone of contention between tribe and others. The age-old bond between forest and tribal economies is in debilitated state. Forests continued to be the cherished home for many generations of tribals and provide all their requirements. In past as their requirements were very limited isolated economy was based on barter and with out depending much on monetized economies. The conservation of a forest is inevitably involves the regulation

of rights and the restriction of the traditional privileges of local stakeholders depending upon the importance of forest to national interest, however, irksome such restraint may be to the local residents.

In mean time the subject of forests was included in the State list as per the VIIth Schedule of the Constitution of India since the year 1935. In 1935, The British Parliament based on the Government of India Act of 1935 created Provincial Legislature but by virtue of which a dual system of Government came in to operation. The subject of forest was included in the provincial list under the Act. But it was changed in the year 1976 whereby the subject of forest was transferred to the Concurrent list through the 42<sup>nd</sup> Amendment to the Constitution of India. But by this change the powers of the State were reduced and those of the Centre were enhanced over the 'Forests'. The Government of India promulgated the Forest Conservation Ordinance in the year 1980 prohibiting the State Government from allowing the use of any forest land for any other purpose without the prior approval of the Central Government. The Ordinance was listed and converted in to an Act in the same year (No.69 of 1980).

Forest policies and other policies should be consistent with each other, and where there are any conflicts of interest, these must be resolved with out any delay. Forest policy is a vital component of land use policy, in the absence of which it is difficult to develop a sensible forest policy. Forest policy has also very crucial role where 'development' *vis- a-vis* 'environment' issues juxtapose to each other. Forest policy must develop as coherent whole instead of as a series of appendages to these other policies. Forest policy formation is a continuing process. Policy must be adjusted in the light of changing circumstances, taking into consideration of importance of various needs of society on priority basis. The disappointing results of forest conservation policies have forced the government to shift the focus away from state-centred policies of conservation toward solutions by involving local people. The resource degradation not only deteriorates the world ecology and environment at the global scenario but has challenged the livelihood security of forest dependent marginalised communities. With out integrating local community interest with sustainable natural resources management, it is difficult to achieve the desired goal to protect and promote natural resource base in any locality.

The shift in the policy approaches towards resource management from state to resurgence of community to centre stage in development due to apart from state's failure in achieving desirable resource management outcomes there are some other specific reasons for the worldwide shift are: (a) Local communities with their day to day interaction with natural resources and as they directly affected as the state of natural resources better or worse off due to improvement or degraded condition, exclusion of these communities from resource management is not always a desirable strategy. (b) Minimisation of conflicts between community and government officials is possible by making them partner to resources management (Kothari et al, 1989)(c) Indigenous knowledge of resources dependent communities may be harnessed in a better way by involving them to secure good results. (d) There is a possibility of reduction in the cost of natural resources management by the way of local people's cooperation and involvement in natural resource management, (Kothari et al, 1989) (e) Implementation of various development schemes without community participation, it is difficult to judge and justify what people wants and priority can be determined easily through democratic manner by involving community. (f) Community management is considered as suitable alternative to achieve better protection, conservation, equitable distribution of outcome of natural resource management than nationalisation and privatisation by various scholars (Ostrom, 1990, Das, 2008, Panda and Das, 2009).

#### FOREST STATUS:-

According to the 13<sup>th</sup> India State of the Forest Report 2013, the actual forest cover of Odisha was reported 50,347 square kilo metre, which constituted 32.23 per cent of total geographical area of the state. In terms of forest canopy density classes, the state has 7,042 sq.km forests with crown density above 70 percent & 21298 sq.km with crown density in the range of 40-70 percent & 22007 sq.km with crown density of 10-40per cent,

tree cover outside forest assessed separately 4,435 sq.km. Very dense forest(VDF) above 70per cent constitute 13.99 per cent , moderately dense forest(MDF) between 40-70per cent crown density constitute 13.99 percent open forest with crown density between the range of 10-40% constitute 13.0% total outside forest 2.85% scrub and non-forest area of the total geographical area of Orissa. But the state has recorded forest area of 58,136 sq.km which includes 26,329 sq.km (42.71%) reserve forests, 15,525 sq.km (26.70%) of protected forests and 16,282 sq.km (28.01%) of un-classed forest. The total forest area recorded was 37.34% of its total geographical area but actual forest cover which constitutes 32.23% revealed that 5.11% of forest area to total geographical area wiped out from the surface of our soil.

## Forests in Odisha

In order to examine the forest status in Odisha the actual forest area and area under forest by departmental records to be presented in a systematic manner for the better understanding of the readers. The total forest area in Odisha, as per Departmental records reveals that in 1981, was 59963.30 square kilometres has been reduced to 56059.52 square kilometres in 1996. During the period 3903.78 square kilometres of forest areas has been diverted/decreased. What is alarming is that the findings of satellite survey undertaken by the Government of India, Ministry of Forest and Environment, which reported in various years compiled for better explanation. The report has classified forest according to density is as (i) dense forest: forests having more than 40 per cent crown density also termed as closed forests, (ii) open forests: forests with crown density of 10 to 40 per cent, and (iii) Mangrove area in our country/state.

**Table-1**  
**Forest cover in India in Odisha (in Sq.Km)**

Assess ment year	India			Odisha		
	Geographi cal Area(Sq.K m)	Forest Cover (Sq.Km)	Percentage of geographica l area	Geographical Area(Sq.Km)	Forest Cover (Sq.Km)	Percentage of geographical area
1	2	3	4	5	6	7
1989	3287263	640134	19.47	155707	53163	34.14
1991	3287263	639182	19.44	155707	47137	30.27
1993	3287263	640107	19.47	155707	47145	30.28
1995	3287263	639600	19.46	155707	47107	30.25
1997	3287263	633397	19.27	155707	46941	30.15
1999	3287263	637293	19.39	155707	47033	31.10
2001	3287263	678333	20.64	155707	48366	31.10
2003	3287263	677816	20.64	155707	48353	31.06
2005	3287263	690171	20.60	155707	48755	31.07
2009	3287263	692394	21.02	155707	48855	31.38
2011	3287263	692027	21.05	155707	48903	31.45
2013	3287263	697898	21.23	155707	50347	32.23
2015	3287263	701673	21.35	155707	50460	32.41
2017	3287469	708273	21.54	155707	51345	32.98

Source: Statistical Abstract of Odisha, 2012, p-260 and FSI of different Years.

The above table containing data on actual forest cover as per the satellite imagery survey conducted by the Forest Survey of India (FSI) in its publication of India State of Forest Report (ISFR) during 1989 to 2013 and forest cover as a percentage of total geographical area (TGA). In India forest cover percentage to total geographical area (TGA) has been fluctuating from 19.27 in 1997 to 21.23 in 2013. During the period, In case



of Odisha the percentage of forest cover was highest in 1989 i.e 34.14 whereas lowest in the year 1997 (30.15%). Though the situation of forest cover is better in Odisha as compared to the National scenario still it is lagging behind the prescribed limit of 33 percent FC except in the year 1989. The situation has been improving in Odisha, though marginally, from the year 2003 in Odisha and in India since the year 2005.

The FSI in its ISFR has classified forest according to density is as (i) dense forest or closed forest referring to the forests having more than 40 per cent crown density also termed as closed forests, (ii) open forests: forests with crown density of 10 to 40 per cent, and (iii) Mangrove area in our country/state up to the assessment year 2003. The area in which the canopy density is less than 10 per cent has been classified as scrubs But, FSI, 2003 and onwards the reports contain more detailed forest status by classifying forests in to very dense, moderately dense, open and mangrove is more realistic to analyse condition of forests in our state due to availability of much more improved technique. The FSI defined 'Very Dense Forest'(VDF) the forests where crown density is above 70 per cent, 'Moderately Dense Forest' (MDF) with crown density ranging from 40-70 per cent, 'Open Forest'(OF) with crown density ranging from 10-40 per cent and tree outside forest (TOF), concepts were introduced for the purpose of better forest management and planning for development. The dense forest area constituted varies from 57 percent to 61per cent approximately during the data analysis period. But the data collected on the basis of VDF and MDF represented in above table reveals increase in per cent of VDF up to 2011 (12.06%) which declined marginally in the year 2013 to 11.96 per cent. Similarly increase in the per cent of open forest is not at all a good sign from the point of view of environmental condition. Declining the per cent of scrubs around 2 per cent in 1989 to 1.26 per cent during 2013 is a good indicator in the sense that the area having less than 10 percent of canopy cover reduced due to improvement in the crown density of such areas.

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**Table-2**  
**Forest cover in Odisha as per different Satellite survey.(Area in Sq.Kms.)**

Year	Closed/ Dense	Very Dense	Moderat ely Dense	Open	Mangro ve	Total	Reference Period
NRSA,1983	37320 (77.13)			10829 (22.38)	234 (0.49)	48383 (100.00)	1972-75
FAO,1981.	34350 (61.41)			20850 (38.54)		55890 (100.00)	1975-77
NRSA,1983	28812 (73.08)			10386 (26.34)	277 (0.58)	39425 (100.00)	1980-82
FSI,1987.	28573 (53.75)			24391 (45.88)	199 (0.37)	53163 (100.00)	1981-83
FSI,1989	27561 (58.46)			19384 (41.12)	192 (0.41)	47137 (100.00)	1985-87
FSI,1991	27349 (57.94)			19661 (41.65)	195 (0.41)	47145 (100.00)	1987-89
1993	27151 (57.58)			19799 (41.99)	195 (0.41)	47145 (100.00)	1989-91
1995	27163			19749	195	47107	1991-93

	(57.66)			(41.92)	(0.41)	(100.00)	
1997	26101 (55.60)			20629 (43.95)	211 (0.45)	46941 (100.00)	1993-95
1999	26073 (55.44)			20745 (44.11)	215 (0.45)	47033 (100.00)	1996-98
2001	27972 (57.27)			20866 (42.73)	-	48838 (100.00)	2000
2003	28170 (58.24)	288 (0.60)	27,882 (57.65)	20,196 (41.75)		48,366 (100.00)	2002
2005	28,194 (58.28)	538 (1.11)	27,656 (57.17)	20,180 (41.72)		48,374 (100.00)	2004
2009	28,467 (58.27)	7,073 (14.48)	21,394 (43.79)	20,388 (41.73)		48,855 (100.00)	2006
2011	28,426 (58.53)	7,060 (14.44)	21,366 (43.69)	20,477 (41.87)		48,903 (100.00)	2008-09
2013	28,340 (56.29)	7042 (13.99)	21298 (42.30)	22007 (43.71)		50347 (100.00)	2010-12
2015	28,455 (56.39)	6985 (13.84)	21470 (42.55)	22005 (43.61)		50460 (100.00)	
FC within RFA		6082	15603	12431		34016 (76.5)	
2017	28337 (55.19)	6967 (13.57)	21370 (41.62)	23008 (44.81)		51345 (100.00)	
FC within RFA						34116	

Source: Statistical Abstract of Odisha, 2012, and FSI of different Years.

N.B: Figures in parentheses represent per cent to respective total.

From the above table it is vividly clear that the open forests constitute more than 40 per cent indicate loss of plants and species degrading the physical quality of forests. There is good sign of increasing very dense forest per cent to total forest area. But what is more concern is that there is no visible improvement in the per cent composition of open forests in Odisha. Hence, there is immediate need to put more attention to improve the physical quality of forests. In order to improve the natural forest resources, people's participation and involvement to further improve their economic condition is basic necessary. JFM should invest its efforts to ensure improvement in the density of forests by rehabilitation of such open forests, to restore such precious natural wealth for use of future generation.

**Table-3**  
**Forest Area in Records and actual as per Satellite Survey/FSI Reports, Odisha**  
**(in Square Kilometres)**

Year	As per Odisha Government Records	Forest Cover as per Satellite survey/FSI Reports	Difference	% of Forest area as per FSI to recorded forest area.
1989	59963.30	53163	-6800.30	88.66
1991	58052.38	47137	-10915.38	81.20
1993	57183.57	47145	-10038.57	85.45
1995	57183.75	47107	-10076.75	82.38

1997	56059.52	46941	-9118.52	83.73
1999	58135.47	47033	-11102.47	80.90
2001	58135.47	48838	-9297.47	84.01
2003	58135.47	48366	-9769.47	83.20
2005	58135.47	48374	-9761.47	83.21
2009	58135.47	48855	-9280.47	84.04
2011	58135.47	48903	-9232.47	84.12
2013	58135.47	50347	-7788.47	86.60
2015	58136	50460	-7676	86.80
2017	58136	51345	-6791	88.32

Source: Statistical Abstract of Odisha, 2012, p-260 and FSI of different Years.

From the above table it can be said that there is loss of around 12 to 20 per cent of actual forests. Such shortage is due to loss of vegetation cover or diversion without proper sanction of the Government. Such a shortage should be properly investigated and monitored to restore it. The ill effects of forest loss are many, which includes (a) Increasing pollution, (b) rising temperature, (c) harming bio-diversity, (d) forests act as a carbon sinks and this benefit will be lost due to deforestation and environmental problems may be aggravated in many ways, (e) dwindling oxygen level, (f) loss of surface soil (g) serious adverse impact on hydrological cycle and (f) threatening forest dwellers livelihood base.

### **Progress of JFM in Odisha through formation of VSS**

Since time immemorial, the forest has sustained bio-diversity and help to build human civilisation. Human beings had been fully depended for all their needs on forests from the beginning of civilisation. With the advancement of civilisation, people cleared forests for setting up of villages, human habitats and agriculture purposes. Increase in population and raising standards of living results in more demands for forest products hence fast depletion of forests. The very serious threat for forests is caused by human civilisation which had the root of its sustenance. The basic truth is that human being going to axe the root of the tree with out realising the consequences of its loss which may extinct the whole civilisation one day. The over exploitation of natural resources will invite the perilous results that may not leave any living being in this planet to survive. By ignoring the importance of forests for survival of every living being, we are going to make our planet at stake. The high risk of devastation will not be far away if, we are not spread the message among all that the bio-sphere reserve is highly essential for human survival and all should contribute something for sustaining forests, which had contributed immensely for development of our civilisation.

Hardin's thesis on 'tragedy of commons' has powerful impact on Scholars to put their efforts on evolving a solution to the problems of overuse of common pool of natural resources which results in degradation of the resource. The thesis concludes that co-users of a common pool resource are trapped in a situation in which in the absence of any regulated access to the resource, each rational user is motivated to consume more and more units of resource system till the resource is completely degraded. Thus collective and unregulated use of common pool resource will finally lead to over use and degradation of the resource, and individual rationality of each user will not favour any coordinated action to regulate the use of the resource. So, many scholars offered different solutions for nationalisation, rational use of resources, and management by involving local communities etc.

After realising that mere government efforts can not protect or manage forests properly, without involving local people/ village community in this work the State Government started taking steps in this direction. The first step to involve local village community in protection of forests was initiated with the

Resolution No OF (Pron) -47/88/17240 FFAH, dated 1<sup>st</sup> August 1988 of Government of Odisha in Forest, Fisheries and Animal Husbandry Department(FFAH) . As per the Resolution the villagers were assigned some specific roles in the protection of reserved forests adjoining their villages and in return were granted certain concessions in the matter of meeting their bonafide requirement of fire wood and small timbers under section 24 of the Odisha Forest Act, 1972. As per the Resolution the concerned Divisional Forest Officer (DFO) shall assign peripheral reserved forests to adjoining villages and constitute a forest protection committee (FPC) for each assigned village. The villagers through the FPC will furnish an undertaking to the concerned DFO for proper upkeep and maintenance of the assigned reserved forest areas. Further, Resolution No- 1OF (Pron)-47/88-23638 dated 2<sup>nd</sup> October 1988 of Government of Odisha in FFAH Department inserted that FPC should be constituted in consultation with local villagers and the non-official members of the FPC should be selected by convening a meeting of the concerned villagers. These resolutions were superseded by the Resolution No. 1OF(Pron)-4/90/29525/FFAH dated 11-12-1990 of Government of Odisha ,FFAH Department, added protected forests also to be assigned to adjoining villages and FPC shall include women and persons belonging to SCs, STs and landless categories. To make forest protection more effective and transparent Government of Odisha, Forest and Environment Department in its Resolution No. 16700-1OF(Pran) 20/93F&E dated 3.7.1993 dealt in an exhaustive manner the involvement of local community in protection of adjoining forests, formation of VSS, their executive committees, duties and responsibilities of VSS and executive committee as well as their constitution , functions and also provided for constitution of a State Level Steering Committee chaired by Forest Minister to monitor and guide the implementation of this scheme/resolution.

## The Implementation of JFM in Odisha

Constitution of VSS as per Resolution of July 1993:

As per the reports received from the DFOs (Territorial), total 1060 VSS have been formed and they are assigned 93895 ha. Degraded forest area.(2) FPCs: In the meeting of State Level Steering Committee constituted vide the Resolution of July 1993 it was decided that the existing FPCs constituted prior to this may be allowed to function as such till they are reconstitute as VSS. There were 5435 FPCs assigned 959401 hectares, out of them 1227 committees were actively participating in protection of forest areas of 180900ha. (3) there are some 640 unregistered groups protecting a forest area of 89864 hectares In the state like Yubak Sangha.(4) As per the Government of Odisha, Forest and Environment department Resolution No. 1OF (Pron) 1/94-22716/ F&E (Policy and Law) dated 7.12. 1994 all the village woodlots and Social Forestry Block Plantations raised under SIDA assisted Social Forestry Project (SFP) during 1984-1994 after being notified as village forest will come under the purview of JFM. Some of the village forest committees formed under SFP protecting adjoining forests along with village woodlot also consider as JFM. There were 9055 village forest committees (VFCs) protecting 121460 hectares out of them 5683 were active VFCs protecting an area of 78646 Ha.(Ori-Forest, Jan-Mar,1997,Conservator of Forests, Development Circle, Cuttack, Odisha ).

Forests represent a complex economic resource. In addition to their timber value they are also valuable as an amenity resource, as a store of biodiversity, as a carbon store and in reducing the severity of floods. Where these non-timber values are significant, the socially optimal forest rotation between planting and harvesting may diverge from private optimal rotation pursued by JFM/VSS. If we cast our glance to 8<sup>th</sup> World forestry Congress held in 1978 in Djakarta, Indonesia had a topic of discussion on ‘Forestry for the people’ was mile stone in suggesting paradigm change in perception of forest governance by involving people in forest management. The World Commission on Environment and Development in its report ‘Our Common Future, 1987 subscribed the earlier views with more emphasise. The Earth Summit in 1992 in Brazil defined Sustainable Development is “development that meets the needs of the present without comprising the ability of the future generations to meet their own needs”. Sustainable Development (SD) in environmental economics is considered as achieving equity both within generations and (intragenerational equity) and across generations (intergenerational equity). So Asheim puts it “Sustainable Development is a requirement to our generation to

manage the resource base such that the average quality of life we ensure ourselves can potentially be shared by all future generations” (Asheim, 1991). The sustainable development discussion has demonstrated that development is dependent on the conservation of the environment, and that conservation is dependent on development. The link or integration of conservation and development were first recognised by the World Conservation Strategy in 1980 (Grub,M et al, 1995). Forest protection activities are directly influenced by the protection-linked direct incentives. Direct incentives from protection of forests create more interest among stakeholders than indirect incentives. Non-destructive forest based economic activities like NTFP collection on a commercial basis like tussar, lac, mushroom culture, collection of medicinal plants, raw materials for local handicrafts/cottage industry or household needs provide more direct incentives to protect forests.

The participatory approach to management of forest resources is commonly referred as JFM. It may be defined as follows:

“Joint Forest Management is the sharing of products, responsibilities, control and the decision making authority over forest lands, between forest departments and local user groups based on a formal agreement. The primary purpose of JFM is to give users a stake in forest benefits and role in planning and management for the improvement of forest conditions and productivity by actively pursuing forest protection and conservation. A second goal is to support an equitable distribution of forest products.”

There are number of studies conducted by different agencies in India or outside. The Society for Promotion of Wastelands Development has summarised Bibliography on JFM in 1995, the Tata Energy Research Institute (TERI) 1992 Published reports on Joint Forest Management Series, Poffenberger, M and McGean edited Village Voices, Forest Choices. Indian Experience with Joint Forest Management.,OUP. The World Bank Forest Sector Report indicates the contribution that JFM makes to the development of village institutions, people’s participation and alleviation of poverty. There are three important dimensions of JFM discourse that includes (i) social and institutional issues,(ii) technical parameters and, (iii) economic factors. A review of existing literature has showed that social and institutional arrangements have been described in detail in wide sites, but there has been little systematic discussion of technical forest management. Quantitative analysis of the financial and economic returns to JFM and incentives for communities to participate is also lacking.

There are different JFM models implemented in Odisha, but the important models are covered by, Forest Development Agency (FDA), Revised Long Term Action Plan (RLTAP), Odisha Forestry Sector Development Project (OFSDP) and Universalisation of JFM (UJFM) or support to VSS.

## **JFM Resolution, 2011**

Keeping in view the shortcomings of the earlier resolution the Government of Odisha Resolution No.IF-Affn.17/2011-16524/F&E dated the 9<sup>th</sup> September, 2011 seriously want to get rid of such conflicts to achieve vibrant JFM in Odisha. The Odisha Village Forest rules, 1985, The NFP, 1988, the Govt of Odisha in Forest & Environment Department issued a resolution on 3.7.1993 are all contributing for the progress of JFM in Odisha. The resolution reads “Forests are one of the complex eco-systems of our planet. The role of forest conservation of environment and economic prosperity of mankind is well established. Economic growth and environment protection are inextricably linked. For surviving on the earth human beings will have to live in harmony with nature...”. Further the resolution recognises the voluntary effort to protect forests as “Participatory forest management in JFM mode is an evolving concept encompassing ecological socio-cultural and economic dimensions. People have played an important role in protection and regeneration of forests in Odisha. Villagers have either formed V.S.Ss as per JFM resolution or CFM groups outside the existing JFM framework. It is desirable that associations of people, whether formed under Govt resolutions, or by peoples’ initiative, with the forest conservations the principal and core objective, are allowed to function smoothly.”

Panchayat Extension to Scheduled Areas (PESA) Act, 1996, which is applicable to scheduled areas, lays down as follows “Every Gram Sabha shall be competent to safeguard and preserve the tradition and customs of the people, their cultural identity, community resources and the customary mode of dispute resolution; Every Gram Sabha shall approve the plans, programmes projects for social and economic development before such plans, programmes and projects are taken up for implementation by the Panchayat at the village level and be responsible for the identification or selection of persons as beneficiaries under the poverty alleviation and other programmes.” This Act vests the ownership of MFP on Gram Panchayats in Scheduled areas. The decision of Government of Odisha to do away with the monopolies in collection and trading in 69 items of MFP is in consonance with the spirit of PESA Act.

The community forest resource has been defined under the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 (popularly known as Forest Right Act). As per the said Act, community forest resource means customary common forest land within the traditional and customary boundary of the village and seasonal use of the landscape in case of pastoral communities etc. The MFP has been defined under the FRA which includes all non-timber forest produce of plant origin such as bamboo, brushwood, stumps, cane, tassar, cocoons, honey, wax, lac, tendu or kenduleaf, medicinal plants and herbs, roots, tubers and the like. It may be mentioned here in case of kenduleaf, the current policy of Government is to discharge certain responsibilities with a view to protecting the livelihood of forest-dependent communities while providing management inputs to facilitate a scale of operation required for adequate value realisation and sustainable management process.

### **Selection of Area:**

The forests of the state to be covered under this Resolution shall be grouped into the two categories; (a) Reserved Forests, Protected Forests, Village Forests, Revenue Forests are not covered under protected area. (b) Protected Area (National Park Sanctuaries) excluding Core Area, and the Mangrove Wetland. The committee constituted for the first category of forests will be known as Vana Surakshya Samiti (VSS) while the Committee constituted for the second category will be known as Eco-development Committee (EDC).

While deciding the extent of area to be assigned, the Palli Sabha shall consult the Forest Range Officer concerned and take into account the area customarily being protected and used by the community, the number of adjacent villages, their claims, if any, and users’ regime. In case a group of villages decide to constitute one VSS jointly, they may do so. The local forester will provide the technical input and facilitate the process of identification of the forest area to be assigned to the committee.

In case any change is required in the extent of forest area assigned to the existing VSS formed under the JFM Resolution, 2008, the same can be done in consultation with the village community and the local forest department officials not below the rank of a Forest Range Officer.

### **Constitution of VSS/EDC.**

Ordinarily there will be one VSS/EDC for a single village. One VSS may also cover more than one village or there may be more than one committee in a village especially large in size. All adults of the village will be members of the VSS/EDC. They may pay enrolment fee determined by the General Body (GB) of VSS/EDC. The Palli Sabha shall send its resolution to the Range Officer concerned regarding constitution of VSS/EDC for his record and communication to the Divisional Forest Officer (DFO) concerned for registration at the Division level.

## Constitution of the Executive Committee (EC)

The Palli Sabha shall elect the Chairperson, the Vice-Chairperson (one of them must be a women), the secretary, the Treasurer and a minimum of 11 members to constitute EC and 50% of them shall be women. The number of SC & ST members in the EC shall be in proportion to their membership in VSS/EDC. There should also be representation from the group of community, who do not have any livelihood support other than depending on the forests. The Ex-officio members in EC are ward member/ members; local forest guard will work for 3 years at a time. The Range Officer concerned will act as the Returning Officer for conducting the election of EC. The Returning Officer bestowed with the responsibility of ensuring representation as per the provisions of the Resolution, 2011.

## Usufruct Sharing

The VSS/EDC shall be entitled to the usufructuary benefits from the assigned forests as under:

Usufructs like fallen leaves, fodder grasses, thatch grass, broom grass, fencing material, brushwood, fallen lops, tops and twigs to be used as fuel shall be available to the members free of cost.

All intermediate yields in the shape of small wood, poles, firewood etc as may be obtained as a result of silvicultural operation and bamboo harvested in VSS/EDC assigned area shall be made available to the VSS/EDC members in a manner as may be decided by EC. If sold at a price, the funds so obtained shall be deposited in the VSS/EDC account.

In case of Kendu leaves and specified forest produce other than bamboo, if any, the VSS will have the right to collect the same from the assigned forest but these items will be disposed of as per the prevailing provisions of the government and practices.

While maintaining the forest cover in perpetuity, if any major harvest or final felling occurs in the assigned forest, the same shall be taken up by the forest department as per the prescription of the working plan. In case of natural calamities, harvesting of wind-fallen trees shall be treated as final harvest. Priority will be given to members of the VSS/EDC for salvaging and harvesting work. Valuation of the produce so obtained shall be done and information shared with the VSS/EDC and the produce will be sold /disposed of by the forest department or by agents of the forest department. The VSS/EDC will receive 50% share of the sale price after deduction of proportionate harvesting cost and this will be deposited in the "VSS account". The VSS may also opt for 50% of the forest produce so harvested if it is for their bonafide domestic use and they agree to pay the proportionate cost of harvesting.

In case of village woodlots created and maintained by the VSS/EDC on non-forest land, all usufructs including interim and rotational harvests shall go to the VSS/EDC.

The resolution on JFM has been revised from time to time keeping emerging situations in view. In 2005, there were about 9778 JFM committees managing about 14 per cent of forest area. Nearly 17 million families were including 0.7 million families belonging to scheduled tribe communities were involved in this programme. By the end of 2009-10, 11,511 VSS and 379 Eco-Development Committees (EDC) have been formed in the state for protecting and regenerating forest areas. All families of 10,334 villages where VSS and EDC have been formed are their members (Economic Survey, 2010-11, GOO, P-92).

**Table-4.**

**JFM in Odisha from 1997-2010( As on March)**

Year	No. of VSS formed	Annual Growth Rate Baseyear-1999	Area Assigned (in Hectares)	Annual Growth Rate Baseyear-1999	Families involved	Average area/ family (in Hectares)
1	2	3	4	5	6	7
	FPC-5435		959401			

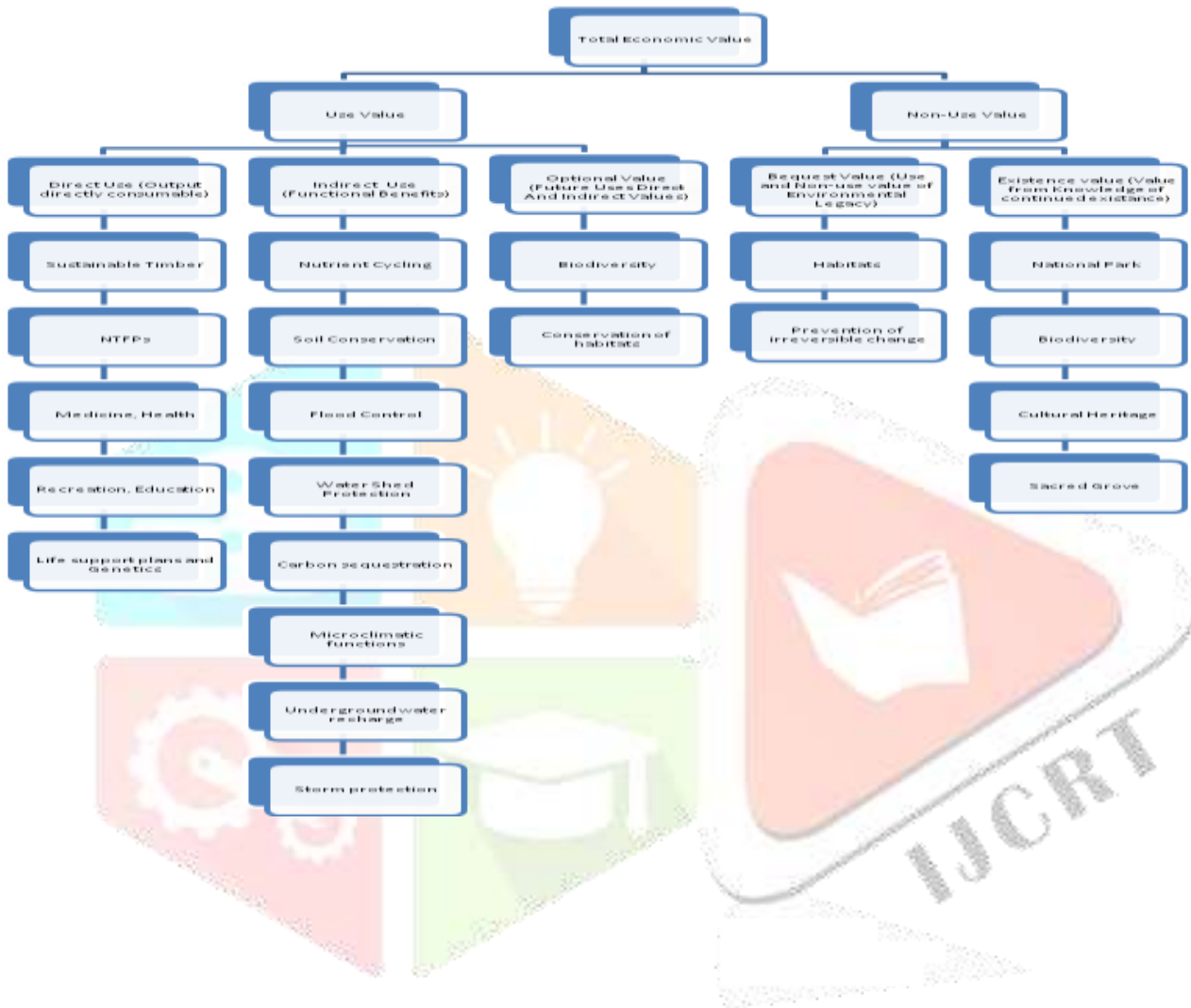
	VFC-9055		121460			
	Unreg.Gp-640		89864			
1999	6768	100.00	645176	100.00	-	
2000	6782	100.21	647520	100.36	-	
2001	6805	100.55	650896	100.89	-	
2002	6820	100.77	652257	101.10	-	
2003	6912	102.13	662012	102.61	-	
2004	7358	108.72	803897	124.60	-	
2005	9371	138.46	817788	126.75	10,98,065	0.745
2006	9677	142.98	880187	136.43	11,82,702	0.744
2007	10140	149.82	916000	141.98	12,00,000	0.763
2008	10647	157.31	972900	150.80	13,75,540	0.707
2009	11362	167.88	1036817	160.70	15,54,681	0.667
	EDC-371					
2010	11725	173.24	1103230	171.00	16,12,119	0.684
	EDC-398					
2011	12071	178.35	1143775	177.28	16,39,266	0.698
	EDC-398					
2012	12244	180.91	1130914.9	175.29	14,75,783	0.766
	EDC-469					
2013	12385	182.99	1150346.4	178.30	14,94,335	0.770
	EDC-479					
2014	12479	184.38	1166877.739	180.86	15,27,474	0.764
	EDC-504					

Source: O/o PCCF, Odisha, Bhubaneswar.

The above table portrays that the situation of JFM in Odisha has been indicating constant progress of participation of people in forest conservation, management, development, and providing certain equitable benefits to members in return. During the year 1999, there were 6768 numbers of JFM functioning in Odisha which is increased to 1.76 times i.e. 11947 numbers during September 2010. Similarly the numbers of families participated in JFM is also raised from 10.98 lakh in 2005 to 16.40 during September 2010, which is 1.49 times higher during five years. Increased number of families involving in participation of forest management is definitely a better sign of peoples concern about management of local natural resources for their own benefits and at the same time it has positive impact on the society as a whole.



**Diagram:1**  
**Economic Values Attributed To Forests**



**Indicators for assessing Empowerment situation**

Empowerment is defined as the transfer of control over decisions and resources for equity, participations and sustainability. The key elements of empowerment are participation and inclusions, assess to information, organisational capacity development, accountability, access to services, which ultimately leads to sustainable development. Therefore assessment of such programmes carried out by experts to analyse achievements needs certain indicators to be developed and examined. Indicators are the means by which the outcomes of the process can be understood in one form or the other measured or explained. Thus indicators must accurately reflect the changes that have taken place. Keeping this into account , the indicators for assessing JFM impact on empowerment and other changes that ultimately leads towards sustainability of the programme.

**Table-5**  
**Indicators for assessing Empowerment situation.**

Sl.No	Indicators	Verifiers
1	Participation and Inclusion	Representation in Committee by gender, ethnicity and economic classes
		Participation in planning, Implementation and Monitoring
2	Access to Information	Records and Minutes Keeping
		Circulation of Minutes in Local language as well
		Circulation of orders and guidelines
		Knowledge of JFM Processes
3	Organisational Capacity & Development	Familiarities with Gov't Rules and regulations, JFM and related Acts.
		Formation of Committee
		Formulation of Micro-plan
		Financial Management
		Capacity Development
		Institutional linkages and coordination mechanisms
4	Accountability	Involvement of Forest Dept. and other Organisations in JFM related activities
		Awareness of Rights & responsibilities or actions to be carried out
		Information about micro-plan and its activities
		Support from Forest Dept.
5	Access to services	Participation of Committee members in JFM activities
		Income Generating activities
		Implementation of micro-plan
		Employment Opportunities
6	Perceptual Change	Tours and Trainings, Benefit sharing
		Self-esteem, Self-confidence
7	Material Change	Vision for future, Visibilities and Respects
8	Relational Change	Income, Resources, Basic needs and Employment
9	Sustainability:	Decision Making, Participation, Bargaining power, Self-reliance and organisational change.
A	Biological Sustainability	Regeneration (Both present status and potential), Forest Condition ( Stand diversity and density), Supply demand gap of forest products, (especially NISTAR) and Biotic Pressure.
B	Organisational Sustainability	Conflicts and resolution mechanism, Meeting/group discussions/ personal communications, Implementation of Decision and monitoring and evaluation mechanism.
C	Economic Sustainability	Fund generation, Income from forest products, Equity and equality.

Community perception on indicators of empowerment:

Awareness among members about the JFM activities;

Ability to express the views in meeting with out fear and favour;

Participation and inclusions of all in JFM development;

Active participation of people in forest development activities;

Less influence by the Forest Department;

Opportunities and sustained income and generation of employment through JFM;

Capacity to generate own resources for forest development activities;

Availability of information to all to keep transparency;  
Accountability of all Stake holders of JFM;  
Equitable benefit sharing;  
Relationship with other organisations established;  
Creation of assets for village and community development;  
Participatory planning process;  
Perceptual and attitudinal change of community towards forests;  
Increase income and employment after being involved in JFM;  
Reorganisation of voices of poor and down-trodden in JFM activities;  
Increased in self-respect;  
Sustainable management of forest resources;  
Fulfilment of NISTAR.

The above indicators are empower perception of community to measure the change.

### **Shortcomings of JFM:**

JFM represents a change in the state's approach to forest management, but problems of concept of 'economic' benefits to community as against 'subsistence' and practical difficulties in assignment of actual demarcated area to JFM for developing systems to address conflict resolution, dealing with different administrative and forest boundaries, and increasing women's participation may be prominent two sets of issues (Saigal et al, 1996). At the conceptual level the terms 'stake holders' 'Community', 'participation', 'benefit sharing' are involves a lot of ambiguity. Lack of non-clarity of these terms used leads to serious confusion (Jeffery and Sunder,1999). As the bio-physical domain has always been prominent in definitions of problems addressed and in assessments of the forest administrations performance. India's forest policy statements since independence imply almost an obsession with forest quantity. The basic perception that rural people's prime concern was shortage of fuel wood for substance needs, and from this it was assumed that they would be willing and able to manage communal woodlots on public land outside of the areas owned by forest departments.

Benefit sharing mechanism is same in all four JFM models and is being executed as per JFM resolution, 2008. It provides 100 per cent of the intermediate harvest of firewood, poles, small timbers and collection of NTFP items and 50 per cent of final harvest after deduction of proportionate harvesting cost.

The members of different models may be encouraged to impart training to stimulate or motivate people so that they can improve themselves and discharge their work effectively. JFM training revolves around human behaviour which is responsible for group dynamics, including organisational structure, norms, roles, motivations, conflicts and sorting out different contentious issues. The technique on management is important component of JFM training to achieve desired results of forest and community development.

The World Commission on Environment and Development (1987) observed that "we must have true participation of all the society in the decision making and more particularly in the allocation of resources. And why so? Because all of us are perfectly aware that there will never be sufficient resources for everything that we wish, but if the population participates in decision making it will benefit those who need the most and it will express their thought about the allocation of resources and it will give us the certainty that which is being done is the legitimate aspiration of the people".

## The Odisha Forestry Sector Development Project (OFSDP)

The Odisha Forestry Sector Development Project or OFSDP funded by Japan Bank for International Cooperation (JBIC) presently known as Japan International Cooperation Agency (JICA) is the first major externally aided forestry project in the state of Odisha, after the Social Forestry Project funded by SIDA during 1980s. The project was launched during 2006-07 estimated project cost of Rs.6598 million and total duration of the project is seven years, with its twin objectives of restoration of degraded forests and livelihood promotion has moved in direction of heralding changes in capacities of impacted communities and service delivering personnel in field for coping with risks and challenges. In order to achieve the goal the state government constituted Orissa Forestry Sector Development Society as an autonomous organisation, registered under the Registration of Societies Act, in the Forest and Environment department for smooth implementation of the project. Society mode institutional mechanism, first its type in country, meant for facilitated evolution on innovative approaches for project intervention.

The project formulated by taking various key indicators relating to forest degradation and socio-economic condition of the area, which covered 11 forest divisions and three wildlife divisions out of 51 divisions in Odisha. The 14 divisions are situated in 10 administrative districts. The divisions are Angul (Angul), Balliguda (Kandhamal), Bonai (Sundergarh), Deogarh (Deogarh and Angul), Jeypore (Koraput), Keonjhar (Keonjhar), Koraput (Koraput), Parlakhemundi (Gajapati), Phulbani (Kandhamal), Rayagada (Rayagada), Rourkela (Sundergarh), SatkosiaWL (Angul), BalasoreWL (Balasore) and Bhadrak WL (Bhadrak) encompassing total forest area of about 21,600 square kilometres. The total degraded forest in these divisions is about 15,050 square kilometres which is about 70 per cent of the forest area. The project among other objectives aims to bring paradigm shift from conventional forestry to sustainable forest management by (a) refined Assisted Natural Regeneration (ANR) (b) promoting decentralised VSS nurseries and block Plantation, (c) ensuring soil and moisture conservation (SMC), and (d) introducing new planting techniques such as root trainer seedlings, macro-propagation of bamboo, improved seeds etc.

### Benefits to VSS:

Implementation of the project shall result in tangible and intangible benefits to the VSS members, improvements in the condition of the forest, forest based resources, and community empowerment, ultimate benefits which not only VSS members would receive but would be experienced by the members of society at large. Besides these, the project has provisions for supporting community development works (CDW) including entry point activities (EPA) and income generation activities (IGA). The benefit sharing among the members would be based on the principles of equitable distribution among the participating members. However, the benefit sharing criteria and procedure of benefit sharing shall be decided by the General Body of the VSS. The Animator shall ensure that all the members are duly informed the criteria and procedure of benefit sharing.

#### Specific Benefits from the Project

Project envisages formation of at least two SHGs per VSS for the implementation of the selected IGAs. It is important to mention that the amount provided by the project for IGAs shall be deposited in VSS account for lending to SHGs. This amount shall be managed by the VSS as 'revolving fund'.

d. In addition to above, the project also envisages establishment of nurseries, demonstration farms through some selected VSSs/villages.

Other benefits are use of usufructs, sale proceeds sharing among members, have full right to collection, consumption, value addition, and disposal as per the government regulations. The entitlement will be 100 per cent of the usufructs in the first rotation final harvest and 50 per cent for the subsequent rotations, in case of woodlots developed as 'village Forests' under Social forestry project. In the cases of seizure of illegal forest produce in transit, where the members of VSS substantially involved in collection of intelligence, detection,

shall be entitled to incentive on the disposal of seized forest produce vide the Odisha Rewards for Detection of Forest Offences Rules, 2004 after disposal of the seized produce as per Rules.

## Conclusion

Although 'participatory' concept is new one 'community' forest management has a long history in context of Odisha/India. Since last two decades there has been a paradigm shift in policy on forest management from the centralised state managed approach of natural resources governance; to a decentralised participatory or community owned approach in Odisha/India. Co-management of forest by government and local people is becoming acceptable at various levels of governance.

The Forest Act of 1864 was a legal step to regulate the forest exploitation, management and preservation, an attempt to regulate collection of forest produce by forest-dwellers in favour of the "public benefit". Its application was limited to the forests under the control of government and had not any control over forests under private ownership. So, the British India had to face stiff resistance from the tribals, forest inhabitants and local communities who were viewed it as interference by Alien administration on their traditional rights.

In 1875, a new Forest Act was enacted, in which forests were classified into:

(1) Reserved forests, (2) Protected Forest and (3) Village forest to ensure better forest management including preservation, protection and scientific intervention.

The Indian Forest Act, 1927 passed to increase government control over the forest lands and regulate people's right over forest and produce. Taken together, all the rights of the tribal people in the forest were called 'nistari', which means to be free (in this case exemption of tax). The Act was built upon the premise that the State was the owner and custodian of all forest resources, and tribal communities were transformed in to subservient communities who were recipients of NTFP as a concession rather than their natural right.

The National Commission on Agriculture (NCA) in 1976 recommended that "drastic reduction of people's right on forests and also suggested stop of free supply of forest products to tribals and controlled by the forest departments".

The legal formalities as per the Forest (Conservation) Act, 1980 made forest land diversion to non-forest uses according to importance of project proposal cleared and submitted by state government scrutinized by the government of India as per norms and rules of the Act, may agree or reject.

JFM is initiated in Odisha by constituting VSS and undertaking management to achieve development goal of people and forest. Forest protection, conservation, undertaking plantation and regulating use of natural resource, like forest provides a lot of benefits to people and society is acceptable criteria for sustainable forest development. JFM institutions are very well known in the locality for their functions and implementation of various developmental activities.

Benefit to community and targeting to achieve better environment contribute immensely for sustainable development. After independence introduction of forest development approaches and implementation of various forest development programmes with external aid such as social forestry (SFP) and the Odisha Forestry Sector Development Project or OFSDP and internal funds utilisation for compensatory afforestation like Compensatory Afforestation Fund Management and Planning Authority (CAMPA) strive towards a better forest sector through out the years is a significant.

Until the alternatives for earning livelihood are not provided to people, forest conservation will be a difficult task to carry out. Most of the experts are of the view that the state has to play a positive role in forest management, although it must drastically reorient and sensitise itself to peoples' needs and demands. JFM is most grass root level organisation aims at management of natural resources like forest and attain better income and livelihood support for its members with the development forest and environment. If the people involving in the conservation, protection and development of forest resources at the grass root level remain indifferent it is difficult to achieve sustainable development

. Therefore proper and effective steps at right moment of arising problem is need to be addressed to deliver social and economic justice is utmost urgent to save forest. The institution of JFM not only has accrued benefits to local community but by ensuring sustainable development keep our environment and ecology in better condition for rest of the World.

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