

VISION 2020

Contents: -

Sl. No.	Subject	Page No.
1	Introduction	
2	Vision Statement	
3	Goal	
4	Strategy	
5	Tools of Management of Goals	
6	Work Programme	
7	Conclusion	
8	Cost Table (Annexure 1 to 6)	
9	Jharkhand Forestry Project (Annexure -7)	
10	W Watershed Management (Annexure -8)	
11	Greening India (Annexure -9)	
12	NABARD Project (Annexure -10)	
13	Distribution of Recorded forest area in States/UTS (Annexure -11)	
14	Comparative Account of Forest Cover of States/UTS in 1997 and 1999 Assessment. (Annexure -12)	
15	Extent of Dense Forest, open Forest & Mangrove in States/UTS (Annexure -13)	
16	Forest Cover and Per Capita Availability in different regions/countries. (Annexure -14)	

THE VISION 2020

INTRODUCTION:

The State of Jharkhand comprises of the Chhotanagpur Plateau Region which is a part of the Deccan Biogeographic province. It is hilly, undulating and characterized by tropical forests and tribal settlements. Out of 7.97 million hectares of land, the forest area comprises about 2.36 million hectares (29.61%) However, the distribution of forest cover is not uniform throughout the State. The districts of West Singhbhum, Palamu, Garhwa, Latehar, Chatra, Hazaribagh, Giridih have more than 30% of their area under forest cover. The districts of East Singhbhum, Saraikela, Ranchi, Gumla, Simdega, Koderma, have forest cover between 20% to 30% of their land area. Other districts like Dhanbad, Dumka, Pakur, Sahebganj, Godda, Deoghar, Jamtara, Lohardagn, Bokaro have less than 20% of their area under forest cover.

**FOREST IS GREEN GOLD, PLANT AND PROTECT
MORE TREES TO PROTECT YOUR FUTURE.**

When we compare our forest with the national average, following is the scenario.

Sl.NO.	Subject	National Average	Jharkhand
1	Recorded forest area	23.28% of geographical area	29.61% of geographical area
2	Actual forest cover	22.55% of geographical area	27.04% of geographical area
3	Open forests	7.76% of geographical area	13.28% of geographical area
4	Dense forests	11.48% of geographical area	13.86% of geographical area
5	Average volume per ha.	76.4 M	37.5 M
6	Per capita forest (in km)	0.08 Ha	0.1 Ha.

The above table indicates that recorded forest cover of Jharkhand is above national average but below the limit prescribed by the national forest policy. Secondly, average volume per ha. Is far below the national average i.e. the productivity of forest is low.

The forest land of the State is home to the best Sal forests of the country along with a no. of other tree species like Asan, Gamhar, Bija Sal, Karam, Salai, Khair, Semal, Mahuwa etc and myriad of faunal life like Indian Elephant, Tiger, Leopard, Bison, Wolf, Bear, Langur, Wild dog, Sambhar, Cheetal, Nilgai, Hyaena etc. Over the years, ballooning of human and cattle population resulting in-intense biotic pressure, indifference of local communities and inadequate and inappropriate regulatory measures have led to the degradation of large tracts of forests in the State. This has resulted in large-scale depletion and deterioration of natural resources thereby disturbing the stability of livelihood situation. The problem had assumed alarming proportions as the estimations and surveys indicate a degraded forest cover of around 12000 sq km. The situation calls for urgent remedial steps, but institutional attempts at restoring such forests to their optimum productivity levels have been seriously hampered by two factors-one, lack of serious and organized efforts to promote community organizations (Cos) and involve them in forest management and two grossly inadequate investment in forestry sector.

With a population of nearly 25 million (according to the figures of the last census), per capita forest area in the state is around 0.1 ha. Almost 16 million people are estimated to inhabit more than 10,000 villages situated in and around forests and dependent on these forests for their wood and energy requirements. Besides, a substantial section of this population depends on wood-based as well as non-wood resources, like coal, from these forests for subsistence livelihood. The dynamics of forest-forest dweller relationship, therefore, demands a shift in focus, with greater stress to be given on programs which offer sustainable employment/livelihood alternatives to forest dependent survival.

Effective and efficient decentralized management of forest resources through village level institutions will not only allow the state's rural and tribal people to meet their basic need, it will augment their incomes, thus alleviating poverty, and assure future generations of a green and healthy Jharkhand. It would also ensure protection of environment since the degradation of forests gives rise to serious problems such as floods, famine and drought.

To achieve these goals and ensuring the long term sustained development, the vision statement of the forest and Environment Department, Jharkhand is as follows:-

**“GREEN JHARKHAND, CLEAN JHARKHAND
RICH JHARKHAND, STRONG JHARKHAND”**

Commensurate with the vision the five goals to be achieved by forest department are:-

- 1) Protection of Forests.
- 2) Wildlife Preservation.
- 3) Afforestation of blank areas & wastelands
- 4) Social and Extension Forestry,
- 5) Soil Conservation and Watershed Management.
- 6) Empowerment of people

Strategy:- To achieve above goals following is the strategy the department.

(1) INTENSIFICATION OF FOREST MANAGEMENT

- i. Management of forests on the basis of comprehensive management (working) plan with adequate linkage with micro plan.
- ii. Further expansion and institutionalization of Joint Forest Management System.
- iii. Shift towards selection system.
- iv. Ploughing back significant proportion of income in forest development
- v. Comprehensive grazing policy.
- vi. Focus on poverty alleviation.

(2) EFFECTIVE PROTECTION OF FOREST RESOURCES

- i. Consolidation of forest boundaries.
- ii. Strengthening fire detection and management system
- iii. Forest protection with active involvement of local communities.
- iv. Rehabilitation of degraded forests.
- v. Plantation of Bamboos.
- vi. Plantation of Medicinal plants.
- vii. Plantation of NTFP spp.

- viii. Strengthening protected area network.
- ix. Eco-tourism.
- x. Ecodevelopment in PA's.
- xi. Soil and water conservation
- xii. Preservation of sacred groves.

(3) FOREST EXTENSION

- i. Providing economically viable site-specific models on clonal plantation and supporting massive plantation on private lands.
- ii. Expansion of social forestry activities on community land, road side/canal bank, etc.
- iii. Establishment of well equipped Forestry Extension center with modern nursery in different climatic zones of the State.
- iv. Popularizing Urban and Recreation Forestry.
- v. Providing site specific clones of commercial species.

(4) CAPACITY BUILDING

- i. Monitoring of Forest Resources with GIS and DIP.
 - Forest cover
 - Growing stock
 - Bio-diversity
 - Impact of JFM
- ii. Developing and installation of management information system.
- iii. Formulation and implementation of HRD Plan.
- iv. Establishing need based research system with nationally coordinated projects on
 - Planting stock improvement
 - Bio-diversity assessment and monitoring
 - Eco-restoration of degraded forest
 - Preparation, collection, storage and processing of NWFP
- v. Providing budgetary support.

**FORESTS PROTECT SOILS, CONSERVE WATER AND AMELIORATE
MICROCLIMATE**

TOOLS FOR MEASUREMENT OF GOALS

Following are measuring tools for the goals set by department: -

1) Protection of Forests.

- Assessment of tree damage and loss of forest area through regular Sub-beat inspection.
- Monitoring of forest cover with the help of satellite imagery and ground truthing.

2) Wildlife Protection:- Regular census of wildlife animals with special emphasis on species at the top of ecological pyramid like Tiger, Elephant etc.

3) Afforestation:-

- Survival percentage of Plants.
- Percentage increase in tree cover with the help of satellite imagery.

4) Social and Extension Forestry:-

- No. of Private nurseries established.
- Monitoring of no. of seedlings surviving through sampling method.
- Increase in forest cover through satellite imagery.
- Income from plantation to farmers.

5) Soil conservation and Watershed Management:-

- No. of water harvesting structures built.
- No. of villages covered.
- Area treated under watershed Project.
- Monitoring of water table.
- Trend of Siltation.

6) Empowerment of People:

- No. of JFM committees
- No. of JFM committees having FDA and Forest Development funds.
- No. of Micro plan prepared & being implemented.

**TREE MEANS WATER
WATER MEANS LIFE**

WORKPROGRAMME

(1) INTENSIFICATION OF FOREST MANAGEMENT:-

(i) Management of forest on the basis of working plan.

Forests of the state are managed on the basis of Working Plans. There are 28 territorial and wildlife divisions in Jharkhand. The current working plans deal mainly with the regulations of yield from the existing natural forests. The present state of forest information is unsatisfactory in terms of availability, coverage, consistency and reliability. Information on private and non-forest sources of forests products, processing sector, markets, costs and prices and analytical details like average productivity, input/output ratios and elasticities are almost non-existent. Present capability in this area is also weak. This has led to ad-hoc planning as well as funding. There is an urgent need for improving the forestry information base with clear definition of scope, sources and acceptable standards of accuracy and efficiency in order to strengthen the forestry planning process as well as implementation.

Revision of working plans by traditional method takes too much time and it becomes difficult to regularly monitor the forest cover. It is now possible to map and monitor the forest cover, plantation, watershed development, harvesting and bio-diversity with the help Geographic Information System. Keeping in mind the usefulness of modern technology a small GIS Cell in the forest Head Quarter at Ranchi has been established. It is proposed to strengthen this cell and also to establish regional centers at Chaibasa, Hazaribagh, Daltonganj and Dumka. The post of two working plan officers, one at Ranchi and other at Dumka is proposed by redeployment of officers. It is proposed to digitize all the forest maps and revise all the working plans. Adequate infrastructural facilities would be provided to working plan offices.

(ii) Expansion and Institutionalization of Joint Forest Management system.

Government of Jharkhand has formulated a most comprehensive JFM resolution in sept-2001. JFM resolution clearly mention that receipt from harvesting would be utilized for forest and village development. In case of protected forest 90% of net revenue will be given to the VFMP and for reserve forest, national park and sanctuaries the amount of financial resources to be given to VEDC would be decided by working plan.

In the state of Jharkhand 1379 VFMP were constituted till 2000-01 which are protecting 4300 sq km of forests. Up to 2005-06, 10903 VFMPs/VEDC were constituted covering 21860 sq km. of forest area.

It is also proposed to give legal powers to VFMP/VEDC. Indian forest act 1927 and Jharkhand Panchayat Raj act 2001 will suitably amended.

(iii) Shift Towards Selection System:

The traditional forestry practices involved clear felling in forests for revenue generation. This has led to degradation of forests as due to heavy biotic pressure regeneration is not coming up properly. So it is proposed that selection felling would be prescribed in future working plans. This will maintain the forest cover and at the same time resources will be generated for forest and village development.

(iv) **Ploughing back receipt from harvesting.**

It has not possible to get enough fund for the implementation of working plan prescriptions. To salvage the situation it has been decided by the Govt. that receipts from harvesting would be ploughed back for forestry operations as prescribed by the working plan and also for village development. One such effort has been made by formulating Saranda Development and eco-development JFM resolution of 2001 gives details of ploughing back mechanism.

(v) **Comprehensive grazing policy.**

The grazing should be related to the carrying capacity of forests. But most of our forests are over grazed. The situation is further aggravated in times of floods and drought when the forest are thrown open for tree grazing almost every year. The print of cattle pressure is borne by fringe forest areas where the grazing intensity is far beyond carrying capacity. As if the damage caused by the grazing is not enough, the forests are subjected to lopping by cattle owners.

A multi-pronged strategy such as rotational grazing is needed to achieve the goal of restricting grazing in forest areas to carrying capacity. It is proposed to formulate a policy on fodder production and grazing.

(vi) **Proverty Alleviation.**

A major reason of forest degradation is dependence of the local people livelihood grazing in forest beyond its carrying capacity. To protect & increase forest cover it is essential that forestry programme should aim at generating employment in rural areas. Forestry helps alleviate poverty through the creation of both on-farm and off-farm employment and income. People will be involved and employed in a chain of activities such as seed collection, nursery operations, seedling sales, planting and maintenance of trees/plantations, tending infrastructure development, logging and transportation, harvesting of NWFPs, primary and downstream processing of varying scales and end use activities (e.g. constructions) Many of the forestry activities would be organized through JFM committees to benefit rural women and the landless.

While tree growing and agro forestry enterprises will provide additional on-farm income, forest based small scale and cottage level enterprises will generate off-farm income, in rural areas. Technology in most cases are simple and investment is low. Training would be imparted for forest based cottage industries such as leaf-plate making, rope making, horticulture, lac cultivation, sericulture, bidi making etc. Overall emphasis would be to decrease dependence on forests by creating alternate source of employment. Fund efficient devices would also be introduced.

(2) EFFECTIVE PROTECTION OF FOREST RESOURCES:-

(i) Consolidation of forest Boundaries.

An important and legally authorized function of forest department is to protect and safeguard forest boundaries. However, forest boundaries are not properly demarcated or maintained. Due to non-existence of clearly-demarcated boundaries forest encroachment

are common. Survey and demarcation of forest boundaries have suffered due to financial stringency. It is proposed to survey boundaries have suffered due to financial stringency. It is proposed to survey and fix boundary pillars during the next 8 years around all the forests of the state.

(ii) **Strengthening of Fire Detection and Management System.**

An integrated project has been formulated to protect the forests from fire, it is proposed to establish wireless network through out the forests areas. All range, beats, and important places would be linked to VHF sets. Mobility in forest will be increased by proving vehicles to the divisions. VFMP/VEDC would also be involved in the work. Fire lines would be created and maintained.

(iii) **Forest Protection with Active Involvement of Local Communities.**

All the forests will be covered by VFMP/VEDC. They will be actively associated in the conservation, protection and development of forests.

(iv) **Rehabilitation of degraded forests**

It is known to us that about 50% of our forests are degraded. It is proposed to rehabilitate more than 500000 ha. Of degraded forests with the help of VFMP/VEDC. Efforts would be made to plant indigenous species of villager's choice. This activity will increase employment opportunities and availability of forest products.

(v) **Bamboo Plantation.**

Bamboo is poor man's timber. Its plantations being done on a large scale. It is proposed to cover more than 70,000 ha. Under this scheme. Production of bamboo in currently 10,000 tones/year. It would be increased to at least 33000 tones/year. Bamboo based cottage industries would be established in the rural areas.

(vi) **Plantation of Medicinal Plants.**

Plantation of Medicinal plants on private land is also encouraged. For this purpose 20 nurseries are being established by the department. The number of nurseries of medicinal plants would be increased during the project period. These nurseries will serve as demonstration and training center for the local people. They will be trained in planting techniques and market linkages would be provided to them through local NGO.

(vii) **Plantation of NTFP.**

It is also proposed to plant about 30000 ha. Forest land with NTFP species to increase the income from forest areas.

(viii) **Strengthening of Protected area Network.**

Biodiversity is the very foundation of biological productivity with unlimited economic and life saving values. Biodiversity consists of diversity among the wealth of species, diversity within species (variety, genetic variability) and ecosystem diversity. The tropical forest where the splendor of forest life has evolved through endless operation of warm, wet climate is a veritable store house of genetic wealth and variety. To conserve and protect the bio-diversity one national park and 11 sanctuaries have been notified in the state. There is one biological park for ex-situ conservation of animals and plants. It is

proposed to constitute Bio-reserve in Saranda, a fossil park at Rajmahal and 5 Bio-diversity parks at Ranchi, Hazaribagh, Dumka, Medininagar and Chaibasa. Studies on Studies on wetlands such as Uduwa take in sahebganj would also be carried out. The schemes which will be implemented in protected areas are habitat improvement, corridor management, reducing man animal conflict, creating anti-poaching squads, water harvesting structures, developing veterinary care, Salt lick, doing research training and publicity work. Special emphasis will be given to improvement of elephant's and tiger's habitat in the state.

(ix) **Eco-tourism.**

Forests can provide financial benefits to the state and local communities from recreation and tourism. Well-managed conservation areas can be a source of revenue in addition to covering public cost of providing there services. There are several possibilities of jointly making ecological and economic gains in forestry without one unduly compromising the other. Some potential activities include.

- Wildlife farming (e.g. Deer, crocodile)
- Domestication of plants.
- Eco-tourism.
- Intellectual property rights and biodiversity patents.
- Etho-botanical explorations and bioprospecting.
- Provision of facilitates for filed research.

It is proposed to encourage eco-tourism in betla, Netarhat, Saranda, Hazaribagh sanctuary, Koderma, Tilaiya, Topchachi, Parasnath, Trikut Pahar(Deoghar) Udhwa and Rajmahal fossil park during the project period. Infra-structure faciltites will be strengthened to encourage eco-tourism. VFMPC/VEDC members would be trained to act as eco-guides and manage eco-tourism. Activities.

(x) **Eco-development in PAs.**

It ha been noted that even PA's of threatened and critical ecosystem are affected by encroachment and other forms of human interference, partly due to apathy of people. Good environmental care can only emerge through informed decisions making with local level involvement. The eco-development approach is meant to reduce and deflect human pressure away from the PA's by promoting symbiotic relationship between forest dwelling communities and forest resources. The purpose is to provide sustainable alternatives to the destructive uses of forest resources to local people by improving productivity and use of their lands in or surrounding the PA's and enlisting their co-operation for protecting the integrity of the PA's.

It is proposed to implement eco-development schemes on large scale in all the PA's.

(xi) **Soil and Water Conservation.**

The role of forests in soil and water conservation is well understood. The land and water relationship is particularly important in mountains watersheds and steep terrains.

A soil conservation cum afforestation scheme is being implemented by the department for major degraded areas. In additions to this every plantation scheme has a small component of soil conservation. Soil and water conservation works will also be done under watershed schemes.

(xii) **Preservation of Sacred Groves.**

Tribal life is associated with forests. There are many sacred groves called in forest areas. It is proposed to conserve and develop those areas during the project period. This will go a long way in motivating local community for forest protection. JFM committees will be encouraged to participate actively in nature related festivals e.g. sarahul, Karma etc.

(3) **FOREST EXTENTION.**

Historically, the roles of the public and private sectors in forestry have undergone considerable changes. During the early part of the century the reserve and protected forests were under the control of British India. The remaining forests belong to the feudal classes and landlords. After independence their private forests were taken over by the government. However millions of farmers/small holders grow trees in their farm and house holds to produce wood and other products for their use. The NCA report of 1970 recognized social forestry a traditional rural activity. Social forestry project assisted by SIDA was implemented in Jharkhand from 1985 to 1992. Plantations were raised in wasteland, degraded forests, private marginal lands and agricultural farms. The continuing deforestation and degradation of forests and consequent ban on green felling to support bio-diversity conservation made it impossible to produce an adequate quantity of industrial timber and fuelwood.

Forest area of the state is 29.61% of geographical area where as per NFP 33% area should be under forest cover. This means about 3000 sq km. non-forest land is to be afforested through social and extension forestry.

It is proposed to established hi-tech nurseries in private sector. Massive afforestation drive would be launched through greening India and watershed projects to afforest 3000 sq km of non –forestland. Plantations are being raised along roads. Vacant spaces in urban areas also covered by plants. Hi-tech nurseries are being established for proving improved planting stock. Permanent nurseries have been established in more than 60% blocks for providing seedlings of fruits and timber species of economic importance. All the blocks would be covered under project period. A brief description of Greening India Project is given on annexure-9.

(4) **CAPACITY BUILDINGS :-**

i.Monitoring of Forest resources with GIS and DIP.

Monitoring and evaluation are two closely linked steps of an activity meant to promote accountability for achieving expected results form a policy, plan, project or activity. Monitoring and evaluation should be carried out at all these levels as continuous process, for providing corrective measure. At the activity level performance evaluation can identify inadequacies. At present there is no adequate or effective system of performance evaluations. In the past the department had an elaborate system of control registers/farms

reporting requirements and inspections. The control made chronological records of amongst other things, all happening in administrative areas (e.g. fire records in forest range or division) major undertaking (e.g. plantation registers, nursery registers) and management units (e.g. compartment history, reserve register). There was a system of periodic reports on a number of aspects, which got compiled and published annually as annual administrative reports. There was a system of detailed field and office inspections. Also implementation of working plan was to be closely watched and guided. But now this earlier system has fallen apart and has practically ceased to exist.

With increase in size and volume of forestry activities, without commensurate facilities and means there was no enthusiasm to establish an alternative and effective system of controls.

For proper monitoring and evaluations of forestry activities it is proposed to use modern tools such as Geographic Information System (GIS) and Digital Image Processing (DIP). With the help of these tools regular monitoring of forest cover, growing stock, Bio-diversity and impact of JFM will be done.

ii. Development and installation of management information system.

It is also proposed to develop Management Information System (MIS) for the department. This will help in better planning and monitoring of forest activities.

iii. Formulation of HRD plan.

HRD is a key factor in successful planning implementation and monitoring of development programmes and projects. A motivated and skilled work force is essential to ensure efficient functioning. While motivation is influenced by material and non-material incentives. Skill is a function of education and training. It is proposed to formulate HRD Plan for the department. We have three training schools in the state. The training school at Ranchi would be upgraded to state Forest Academy so that training can be imparted to meet the new challenges facing the forestry sector.

Forestry is a scientific discipline and a profession. Continuous and sustainable development of forestry would depend on research inputs in crucial areas, solving problems and expanding horizons of knowledge. It is proposed to establish high-tech nurseries during the project period.

Root trainers would be used in the nurseries grafting of aovla, am, litchi, ber, guava would be taken up on large scale. Plus trees of different species would be marked and seeds of those trees will be used for propagation. Bamboo productivity would be increased with the aid of tissue-cultured plants, to be supplied by IFP, Ranchi. It is also proposed to increase bamboo productivity by using vegetative propagation from selected clumps. Nursery technique for NTFP species would be standardized. Silvicultural research would be taken up for increasing productivity from natural forests. Agro-forestry models would be developed. Plantation models from which cash-flow will start within a year, would be developed. Biodiversity register would be prepared and regular monitoring with the help of modern tools would be done. Research would be initiated on preparation collection value-addition, storage and processing of NWFP. Other institutions such as IFP, BAU, ILRI, ITRI will be associated with this type of research.

iv. Budget Support.

For carrying out different activities adequate budgetary support is needed. Govt. of Jharkhand has earmarked about 3% its budget for the forestry sector, FDA's have been constituted in all 28 territorial and wildlife divisions so that GOI funds may be utilized effectively. Annexure 1 to 6 deals with State and central sector investments during the project period. A ten year Jharkhand forestry Project has been posed to World Bank. The Project Preparations Phase (2years) and First Phase (5year) are under active consideration of World Bank. A synopsis of the proposal is on annexure-7. It is also proposed that funds for those watersheds in which forest area is more than 50% may be routed through the forest department. A brief description of watershed project is given on annexure-8. Private investment will be encouragement in extension forestry NABARD would be approached to finance schemes under RIDF-III.(annexure-10)

**SURAVIAL OF MAN DEPENDS UPON
SURVIAL OF
PLANTS AND ANIMALS**

JHARKHAND FORESTRY PROJECT PROPOSAL FOR DONOR FUNDING OF THE FIRST PHASE

1. BACKGROUND

1.1 The Ministry of Forests and Environment (JFD), Government of Jharkhand (GOJ) is seeking assistance from the World Bank, in consultation with the Government of India (GOI), for further strengthening and sharpening the poverty focus of its participatory forest management (PFM) initiative. This proposal outlines the proposed Jharkhand Forestry Project and the request for World Bank assistance.

1.2 Jharkhand's forests comprise 2.3 million ha or approximately 3.6% of India's total forest cover and almost 30% of Jharkhand's total land area. Jharkhand is home to some of the best sal (*Shorea robusta*) forests in Asia. However, over the years, intense biotic pressure, neglect by local people and inadequate and inappropriate regulatory measures have led to the degradation of large tracts of forests in the state. Recent surveys show that the closed, open and scrub forests cover an area of 1.1, 1.0 and 0.16 million ha respectively. With a population of nearly 25 million, per capita forest area in the state is around 0.1 ha. Almost 7 million people or about 27% of the population are classified by government as belonging to Scheduled Tribes, most of whom live in and depend upon forest areas. Almost 16 million people are estimated to inhabit more than 10,000 villages situated in and around forests and are dependent on these forests for their wood and energy requirements. A substantial part of this population also depends on wood based as well as non-wood resources from these forests for subsistence livelihood, while close to 70% of the State's rural population lives below the official poverty line. In light of the potential of forest resources, the State government recognizes that *forests contribute to poverty alleviation but cannot eliminate poverty*.

1.3 Government initiative for PFM : The Central and the State governments have taken several policy and programmatic measures to tackle the above issue, most important of which is on participatory forest management (PFM). After the revision of the Indian National Forest Policy in 1988, the Central government's June 1, 1990 circular of MOEF gave a major boost to PFM. The resolution issued by the Government of Bihar in November 1990, and subsequently amplified in August 1993, provided the basis for full-scale implementation of Joint Forest Management through people's involvement. It included provisions regarding the constitution of Village Forest Protection and Management Committees (VFMPCs) and sharing of benefits with the local communities. This resolution completed 10 years in 2000 and this period saw the formation of more than 1,300 VFMPCs in Jharkhand, covering around 4,300 sq km, or around 20% of the total protected Forests (PFs) of the state. Some of 1,300 of these VFMPCs are successors to the 425 Village Forest Committees (VFCs) set up under the SIDA supported Bihar Social Forestry Project (1985-90).

1.4 Recent measures: without any further donor involvement, the Government of Jharkhand recently took steps to develop comprehensive policy and legal frameworks for JFM, which were in tune with the changed environment and addressed the issues arising in the previous decade. This framework reflects the growing conviction among FD opinion

leaders that a regulatory approach is ineffective, that the FD and poor forest dependent villagers share a common interest in the preservation of forests, and that delegation of selected rights responsibilities, and authority to local communities is therefore essential . it took almost a year to develop the new JFM resolution as it involved identification of stake-holder groups; holding seminars, workshop, and group discussions at levels ranging from village to state; gathering information on experiences in other states; collection of feedback from VFMPs of different hues and success levels and, finally, drafting of a new JFM resolution and amendments in different Act . the state government has issued a new government resolution on JFM in September, 2001, Salient features of the 2001 JFM Resolution for Jharkhand include:

- Extension beyond degraded protected forests to include all protected and reserve forest areas, including areas with dense forest cover
- 90% benefit share to VFMPs in all protected forests, as well as a specified benefit share for village Eco development Committees (VEDCs) in all reserve forests (apart from park and sanctuaries), determined on site specific calculation taking into consideration the harvest values and number of adults in the village.
- Carefully defining the legal status and responsibilities of VFMPs and VEDCs in formal agreements and revisions in associated state laws, inclusion of self initiated community organizations, diminished FD intervention in decision making , and participatory formulation of micro-plans for VFMPs and VEDCs which would be based on the basis of new divisional working plans and be subject to state-wide monitoring and evaluation
- Establishment of committee accounts for both the benefit shares and investment expenditures agreed in the micro plan.
- Strengthening the decision making and other involvement of women and vulnerable groups and increased transparency
- Direct links between VFMPs/VEDC and the Gram Sabhas and ownership of NTFP, consistent with the Panchayat Raj (Extension to Schedule Areas) Act, 1996 (PESA) and community option and control of NTFP marketing arrangement and all timber and NTFP harvesting arrangements
- No diversion of forest land for non-forestry purposes without first obtaining the opinion of the concerned VFMP/VEDC, and where a diversion does take place, a sharing with the committee of the royalty charged from the user agency for the forest crop as well as the land .

2. RATIONALE FOR EXTERNAL ASSISTANCE:

Even though the Jharkhand Forest Department has taken considerable steps forward in the field of participatory forest management with its own resources, the desired scale of state intervention is unlikely to be met with its own resources . In particular, the following issues need both urgent attention and external assistance :

- **Human resource development** needed to transform the attitudes, skills and behaviors of forest department staff from a policing and regulatory role to a collaborative and facilitative approach which provides technical support, and thus fills the substantial gap between the recent JFM policy reforms and the capacity to implement these reforms in the field.
- **The allocation of public and private and sector roles** in marketing, nurseries research, JFM facilitation support, and other activities .
- **Management of highly congested forests.** Jharkhand,s forests have had almost on thinning or harvesting during the past decade due to an absence of state funding, lack of clarity in the earlier JFM resolution, and lack of approved forest working plan . these constraints are now diminished with the dramatic increase in Jharkhand’s state plan budget for forestry and the 2001 JFM Resolution. However, considerable assistance is required to update the state forestry resource assessment and the Working Plan of different forest division.
- **Panchayats.** GoJ is seeking to elect village panchayats after a 30 year gap, which would usher in a new of democratic decentralization in the state. This would also bring in the needed synergy between traditional village Government in the Schedule (Tribal) areas. Attention to panchayats is evident in the 2001 JFM resolution and the proposed restructuring of JFD, but the newness of panchayat system is likely to limit design options of some of the forestry programs.
- **Poverty impacts:** The JFD is committed to alleviating rural poverty through forest development . To this end it is planning to address the following issues in order to increase returns to the poor and the most marginalized sections of the rural community, especially to such artisanal and other forest dependent groups which typically remain excluded from the village political structure due to their lower status in traditional social hierarchy. The capacity of JFD in this regard is limited, and therefore it needs assistance on each of these issues:
 - Formulation and implementation of pro-poor forest marketing policies, strategies, and arrangements which effectively maximize returns from forest products to local forest dependent communities (and from farm forestry to poor farmers) on an environmentally and fiscally sustainable basis, and address existing constraints in collection, pricing, transport, information access, and safety of timber and NTFPs.
 - Improving physical and financial returns on investments in forest resources through productivity increases, improved protection, lower costs, timely fund flow, and improved incentive frameworks for cost-effective decision making and sound fiscal management.
 - Undertaking poverty impact assessment and monitoring of forestry programs, and re-design of these programs to reflect the priorities of the chronically poor (as opposed to transitory poor).
 - Understanding management of grazing in forests by local grazers, and managing forest resources by matching local needs and forest potential.

- Enhancing biodiversity conservation inside and outside protected Areas.
- Identification and inclusion of vulnerable groups in management decisions and benefit sharing, even in such poor communities which appear homogeneous and equal because of a Schedule Tribe village population .
- Strengthening institutions for conflict management and among all stakeholders, as needed to address the needs and aspirations of the real poor.
- Developing and putting in place transparency and other arrangements to reduce rent- seeking behavior and foster good governance and trust in JFD.

3. THE PROPOSED PROJECT.

3.1 the objective of the project would be to reduce rural poverty through improved forest ecosystem management with community participation. This objective distinguishes this project from any previous common pool resource management project in the State and forestry projects in other states of India.

3.2 The project concentrates on participatory forest management, transforming ambitious policy reforms into field level results. The ingredients include establishing an enabling environment for community forest management; strengthening community institution, developing and putting in place mechanisms to ensure that woman and vulnerable group (e.g. landless, widows, female headed households, primitive and other disadvantaged scheduled tribes scheduled castes, other poorest etc.) benefit, expanding the natural resource base under participatory forest management, and improving returns to communities from this resource base. There would be three main funds to the village forest/eco-development committees: one for leveraging non-project rural development support, one for leveraging non-project rural development support, one for vulnerable groups, and one for natural resource management in forest areas. In this manner the three project components are identified as :

- (a) Enabling environment for PFM: Strengthening the policy, legal, and organizational framework for participatory forest management. It would have four sub-components:
 - i. Policy, planning and legal environment for PFM
 - ii. Human resource development (HRD) and Human resource management (HRM) for PFM.
 - iii. Support structures and information for service delivery
 - iv. Program administration.
- (b) Community institutions: Strengthening community institutions including mechanisms to ensure benefits to women and vulnerable groups. It would have two sub-components:
 - i. Participatory planning and monitoring, and leveraging of non-project support
 - ii. Mechanisms to ensure that women and vulnerable groups benefit from PFM and

- (c) Forest resource development: Expanding the natural resource base and returns to local communities. It would have two sub- components.
 - i. Forest development
 - ii. Forest technology improvement

The scope and phasing of the project would be driven by lessons learned from Feasibility studies and initial piloting and careful consideration of the poverty focus and requirements for high quality implementation.

3.3 Project content and focus. The content of the project would be driven by the explicit focus on community-based forest management to improve livelihoods in a proactive and process-oriented approach . Rather than confronting the issues concerning the entire forestry sector in the State, the project would focus on those aspects directly related to the sector objective of reducing poverty and improving rural livelihoods. Some issues, such as the pressures and threats to forests from development and pressures and threats to primitive trials, require broad multicultural interventions and will be beyond the scope of the project to resolve on its own, although project would include some measures to help address these issues on a limited scale . The proposed project would concentrate on participation of forest-dependent communities with special attention to women and vulnerable group and restoring the safety-net functions of forest for the poorest; the role of the public sector in management of other land-based resource on communal and marginal agricultural land;a further evolution in the relationship between the JFD and local communities; and improvement in the productivity of forest resources (thought improved silviculture, planting stock improvement and water management will be supported in the areas of project action. However conservation objectives that can only be pursued within designated protected areas will fall outside the scope of the proposed project.

3.4 Phasing and costs: In view of the sharp poverty focus of the project and the limited social development capacity available with JFD in this regard, it is proposed to implement the project in two phases:

The **first phase** of the project spanning 24 months would support routing preparation such as the completion of an environmental and social assessment and compilation of a project implementation plan. It would also enable human resource development and extensive field level piloting and action research to demonstrate the feasibility of proposed project procedures and guidelines, to develop operational experience with World Bank practices (e.g procurement , reimbursement, etc.), and to improve the final design based on lessons learned.

The **second phase** would be the main project phase and would be of 5 years duration. However, the specific timing of project appraisal would be driven by the availability of a high quality project design that would be developed during the first phase of the project . This two stage phasing of the project would help ensure well qualified human resource capacity for JFM expansion and the completion of essential policy reform, thus helping to prevent failures that might undermine

collaboration and trust, and jeopardize the entire long-term program . The estimates of the costs are:

First phase :US\$ 6 million, comprising of US\$ 2 millions PPF advance and US\$ 4 millions in retroactive financing

Second phase: Total project cost (including previous costs) would be US\$ 50 millions, with a possible break- up of: (a) Enabling environment for PFM- US\$ 15 million (b) Community Instructions – US\$ 10 melons, and (c) Forest resource development –US\$ 25 millions. The total World Bank assistance for the project would be of the turned of US\$ 40 millions (80%).

Cost and financing are preliminary estimates and likely to change significantly during implementation of the first phase of the project.

4. FIRST PHASE OF THE PROJECT AND REQUEST FOR FINANCIAL ASSISTANCE

4.1 The phase of the project would include detailed analysis of issues and options, field level piloting, and capacity building. This process emphasizes careful consideration of options for best achieving the project objective and addressing the sect oral issues, and builds upon the experience developed in other states.

4.2 The activities proposed for the first phase includes the following studies, research design, and implementation:

- (a) design and initial implementation of a communication and other conflict management strategy,
- (b) design and pilot field testing of micro planning and other methodologies which produce quality results,
- (c) Key initial policy, organizational, and legal reforms, as well as agreement on a future program, and
- (d) Completion of a project implementation plan meeting all Bank quality standards including social and environmental assessment, safeguard policy consistency, and arrangements for empowerment and social inclusion of woman and vulnerable groups, as well as inter- agency collaboration.

4.3 In addition to above desk studies by the JFD, the first phase of the project would include the following field works:

- (a) Extensive training of all JFD staff, as well as villagers and government and non-government partners.
- (b) Rehabilitation and expansion of an existing training center.
- (c) A small number (28 or so) of field pilots to test and adjust village-level PFM methodology and provide training trainers.
- (d) A large number of (122 or so) of field pilots to test and adjust replication capacity, provide further experimental learning, and a transition to the full scale project.

- (e) Initial design and testing of five modern nurseries
- (f) Basic information technology
- (g) Basic transport essential to the implementation of field pilots.
- (h) Forest resource assessment (e.g., surveys needed to prepare working plans)
- (i) Essential policy reform initiatives
- (j) Office leasing and goods as needed for project management unit, including if appropriate for contracted specialists.

To meet the financial requirements of these activities there is need for assistance from assistance from the World Bank to the tune of US\$6.011 millions for the next 24 month period. Details are annexed herewith (Annexure-1)

JHARKHAND WATERSHED DEVELOPMENT PROJECT

1. INTRODUCTION.

Watershed is understood as a drainage area, a basic hydrological unit, on earth's surface from which run off resulting from precipitation, flows past a single point into a large stream. It is marked by an elevated line that forms a division between two areas drained by separate streams, systems or bodies of water.

Watershed based management has been accepted as the most rational approach because here development is considered not only in term of agricultural land, but it covers a wide and diverse area of activities including Soil and moisture conservation and development of degraded and wastelands.

Though Jharkhand is one of the most richly endowed states in terms of natural resources, the level of development remains palpably low. Declining resources together with the perpetual loss of precious soil and water has led to the reduction of income generating activities and therefore the preponderance of poverty is more accentuated in this state. In spite of massive input towards income and employment generation activities, the level of poverty has defied considerable dent..

2. PROJECT CONCEPTS

The major part of Jharkhand, about 29.61 percent of the total land area, comprises of forests and forest land. Also, a large number of population, especially STs and SCs reside in villages, under whose boundaries substantial land area is notified forest land. Further, a large chunk of land in the State comes under the wasteland category. (Ref. Annex-1) Therefore, the development of forest land and wasteland in non forest area is the main issue of concern.

The development of the above aid areas under watershed approach shall definitely improve the soil and moisture regime of the treated areas and thus be instrumental in the socio-economic development of the area under this project. The representative activities that would be taken up are as follows :-

- (a) Creation of soil and water conservation structures within forest land.
- (b) Afforestation over forest lands.
- (c) Silvicultural operations in the forest land.
- (d) Treatment of non forest Govt lands (common land) which are wasteland, through afforestation, pasture development, creation of soil and moisture development structures etc.
- (e) Involving villagers to ensure the treatment of private wastelands through afforestation etc. under Social Forestry.

The cardinal principle of the implementation of the project would be to ensure the active participation of local villagers. Right from the exact identification of the various activities to be undertaken under the project. The VFMPs shall be associated with the project in more effective and active way. It will be mandatory upon the execution agencies to get the approval of VFMP, regarding various activities to be undertaken in

the project. Further, the proper maintenance of the infrastructure created would be emphasized upon so that the sustainability of the programme is achieved.

3. PROJECT AREA –

The project envisages watershed development in six districts of Jharkhand namely Ranchi, Hazaribagh, Latehar, Giridih, Dumka and Saraikela on a pilot basis. In these districts, 10 watersheds each would be selected in the first year and a detailed work programme would be charted out for each watershed. In the next year, another 10 watersheds each in the selected districts would be selected for treatment. The period of treatment of these watersheds would be five years. The selection of watersheds would be made on the basis of the following criteria.

- (a) The contiguity factor- The watersheds should preferably be contiguous.
- (b) The watershed should have more than 50% of notified forest land.
- (c) The location of the project area should be such that the majority of the beneficiaries are tribal people.

4. PROJECT PERIOD :- 2003 to 2006-07

5. INFRASTRUCTURE :-

The project would be implemented under the overall supervision of the Executive Director, State Wasteland Development Board, Jharkhand. The operational units in the selected districts are being listed as below:-

1	Ranchi Distt	Ranchi East Forest Division Ranchi Social Forestry Division Ranchi Afforestation Division Forest Research Division
2	Latehar Distt.	Latehar Division Latehar Social Forestry Division Palamu Afforestation Division Forest Research Division
3	Saraikela Distt.	Chaibasa North Forest Division Chaibasa Social Forestry Division Singhbhum Afforestation Division Research and Evaluation Division
4	Hazaribagh Distt	Hazaribagh East Forest Division Hazaribagh West Forest Division Chaibasa Social Forestry Division Singhbhum Afforestation Division Hazaribagh Social Forestry Division
5	Giridih Distt	Giridih Forest Division Giridih Afforestation Division Hazaribagh East Forest Division Hazaribagh Afforestation Division
6	Dumka Distt	Dumka Forest Division Dumka Social Forestry Division Forest Resources Survey Division

6. SOURCE OF FUNDING

The funds for the execution of the project would be made available by the Ministry of Rural Development, Govt of India directly to the ED, Wasteland Dev Board, Jharkhand who shall have the overall responsibility for implementation of the Project.

7. PHYSICAL AND FINANCIAL TARGETS :-

The const norms for the watershed development is the same as prescribed under the guidelines issued by the Department of land resources, Ministry of Rural Development, Govt of India for IWDP. The rate approved by Govt of India in Rs. 6000/- hac for Watershed Development Project under IWDP. The average area of a typical watershed is 500 ha. The physical and financial targets are being tabulated as below :-

Work head	Year 2002-03 Phy (ha)	Financial (lakhs)	Year 2003-04 Phy (ha)	Financial (lakhs)	Year 2004-05 Phy (ha)	Financial (lakhs)	Year 2005-06 Phy (ha)	Financial (lakhs)	Year 2006-07 Phy (ha)	Financial (lakhs)
Adv. work	30,000	630	30,000	630						
Completed Work			30,000	630	30,000	630				
Maint. Work					30,000	180	60,000	360	60,000	360

N.B. : The above mentioned targets are slated to be achieved by six operational units at the level of Divisional Forest Officers. The Project may be revised and additional areas could be taken up for treatment in the selected districts.

Objectives of the Scheme:-

Annexure- 9 Greening India

The new scheme Greening India “ has been launched by NAEB with a view to achieve the goal of National Forest policy 1988. It is intended to institutionalize mass production of good quality planting material that would met the economic & environmental requirements. The scheme aims at treating non-forest lands on priority basis.

The total geographical area of Jharkhand is 79714sq kms. The total forest area is 23605 sq km, which is 29.61% of the geographical area . To increase the forest cover up to 33% as per National Forest policy 1988, about 3000 sq kms non forest area will have to be afforested. At the same time there is a need to improve the stocking of existing forest cover. Once the non forest wastelands are rehabilitated the pressure on forest land will automatically decrease. The extent of wasteland available in different districts is given on annex-1.

It is proposed to take up Santhal Pargana & area consisting of six districts of Dumka, Deoghar, Jamtara, Godda, Pakur & Sahebganj in the first phase under this scheme. Awareness generation programme will be taken up in these six districts on priority basis. Wasteland maps would be selected after conduction survey. High tech nursery would be established by Forest Department. It is proposed to collect seeds of selected species from plus trees. Root trainers would be used for production of quality plating material. High quality seeds or saplings would be provided by hi-tech nursery. Satellite nurseries would be established by farmers, individuals, educational institutions on non governmental organizations. Demarcation planting would be done on farmer’s land or revenue land. Objectives of the Scheme:-

The main objectives of the scheme are :-

- (i) to create an enabling environment for tree planting.
- (ii) to make available quality planting material
- (iii) to create awareness amongst people for tree planting and use of quality planting material.
- (iv) to develop and facilitate linkages between production systems and user groups.
- (v) to increase tree cover in the State by concentrating on non-forest lands.

Project Area :-

Santhal Pargana Revenue Division consisting of six districts of Dumka, Deoghar, Jamtara, Godda, Pakur & Sahebganj.

Project duration :-

Five years (2002-03 to 2006-07)

It is proposed to take up following activities during this year

- (i) Awareness generation amongst target groups, constituting VFMPC, imparting training to them, providing literature in local language on package and practices of economically and socially important plant species with cost benefit analysis. Electronic media will be effectively used to disseminate economics, environmental

- and social importance of trees/plants. Illustrated guide would be prepared for establishing hi-tech and satellite nurseries.
- (ii) Estimation survey to ascertain extent of availability of non forest land, the kind of species and their quantity required will be carried out by the forest department.
 - (iii) Number of location of hi-tech and satellite nurseries would be assessed.
 - (iv) Plus trees of different species would be identified.

Second year 2003-04

Following activities are proposed in the second year :-

- (i) One hi-tech nursery would be established at the surveyed place. This nursery will provide genetic quality material to satellite nurseries. This will also serve as an information center for plantation techniques and marketing potential of different species.
- (ii) It is proposed to establish 4 satellite nurseries on private land. For this farmers will be motivated and trained. Technical know-how would be given by forest department.
- (iii) Demo plantations would be raised on 400 hectares of private and revenue lands. These plantations would also be used for imparting training to local people.

Third year 2004-05

One hi-tech nursery, 8 satellite nursery and demo plantation on 700 hectares of private and revenue lands would be done.

Forth year 2005-06

It is proposed to establish 8 satellite nurseries and raise demo plantations over 700 hectares of private & revenue land.

Fifth year 2006-07 :-

Evaluation of the scheme by independent agency would be done. Independent evaluator would be done.

**PROJECT ON CONSOLIDATION OF JFM WITH NABARD ASSISTANCE UNDER
RIDF-VII**

Present Scenario :-

The total geographical area of the State is 79714 sq km. The total forests, is about 23605 sq. km. Which is 29.61% of the geographical area. Schedule Tribe population is about 29.61% of the total population. There are strong co relation between location of tribal people, forest and state's concentrated poverty areas. With the greatest economic dependence on forest resources, it is not surprising that tribalis possess the most extensive knowledge of state forests, as well as the strongest motivation to ensure continuity of these eco system.

Forest the key element of the terrestrial ecology system, are a complete renewable resource base as well as habitat of myriads of life forms. However, lack of adequate financial inputs in the past for a long time has adversely affected sustainable development of forest and conservation of biodiversity. The damage done in the past regarding weakening of departmental infrastructure, dwindling forest cover, degradation of forest, suffering of wildlife leading to ever increasing main element conflict, fire grazing etc. require immediate investment in the forestry sector, due to remoteness and poor road communication, as well as forested character of the tract, there is not much conventional economic activities in these areas. Due to traditional agricultural practices and non-availability of irrigational facilities the agriculture is mostly rain fed, crop yield, is low and a single crop is is cultivated in most of the area. AS the soil are very much vulnerable erosion, a sizeable portion of surface soil nutrients get lost every rainy season resulting into the poor soil fertility. Most of the VFMPC suffer from inadequate supply of drinking water, improper sanitation and adequate infrastructure facilities. 2

Health care and educational facilities also suffer for want of proper building for primary schools and health centers. Most of the area lack power supply also.

Project objectives :-

The proposed project is having following aims and objectives :-

- (1) Conservator of existing forest resources and development of degraded forest area to check soil erosion, improve water ragtime, restore green cover and increase forest productivity.
- (2) Soil and moisture conservation.
- (3) Reduce dependence of forest dwellers on forest by creating employment and generating alternate economic activities.
- (4) To develop infrastructure in these remote forest fringe villages.
- (5) Capacity building.
- (6) Awareness generation for environmental protection.

Project Areas :-

It is proposed to implement this project in all the 22 districts of the state. The project will be taken up and implemented in selected eight five VFMP/VEDC clusters. VFMP/VEDC clusters would be selected on the basis of socio-economic status of VFMP/VEDC members as well as the basis infrastructure facilities available in the villages. It is proposed to take up 340 VFMP/VEDC during the project period. District wise abstract of the VFMP/VEDC clusters is given on annexure-1.

Project period:- 3 years (2002-03 to 2004-05)