Forest Management Research Division

Title of the Project:- म.प्र. राज्य वन विकास अभिकरण द्वारा विभिन्न वन विकास अभिकरणों में वित्तीय वर्ष 2015-2016 (द्वितीय मूल्यांकन) एवं 2016-17 (प्रथम मूल्यांकन) के वर्षा ऋतु में हुए वृक्षारोपण कार्यों का अनुश्रवण मूल्यांकन एवं प्रोजेक्ट इम्पेक्ट असिसमेंट (पी.आई.ए.) के संबंध।

Why this Project:-

National Afforestation Programme (NAP), a flagship afforestation programme under the aegis of National Afforestation and Eco-development Board (NAEB), Ministry of Environment and Forests, Government of India, is currently under implementation on a massive scale plantation throughout the country by district level forest development agencies (FDAs), an institution carved on the lines of district rural development agency with a view to institutionalizing participatory principles in forest management practices. The programme aims at: regeneration and eco-development of degraded forests; increase in the availability of fuel wood, fodder and grasses; increasing production of NTFPs; and, rehabilitation and reclamation of problem sites like alkaline saline soils, deserts, coastal areas, etc. NAP envisages peoples' participation and generation of employment especially for forest dependent communities. The overall objective of the programme is ecological restoration and environmental conservation through peoples' participation in conformity with the objectives as laid down in the National Forest Policy of 1988. Capacity building and skill development of rural communities engaged in afforestation and forest protection activities are among the key components of the programme.

Different forest divisions were selected to run the scheme for the achievement of the above objectives and to devolve forest protection, management and development functions to decentralized institutions of Joint Forest Management Committee (JFMC) at the village level, and Forest Development Agency (FDA).

As explained earlier, the object of this National project of India is about collection of information regarding Eco-development, degraded forests and other components as explained earlier, now this programme is taken in hand by Forest Development Authorities of different districts in India. Therefore to evaluate the different works, this project is being taken by State Forest Research Institute, Jabalpur (M.P.)

Research Methodology:-

The evaluation work was carried out in 36FDAs for the year 2015-16 and 32 FDAs for the year 2016-17. The sites selected for evaluation under various FDAs were visited by various monitoring and evaluation teams from the State Forest Research Institute, Jabalpur during the month of June 2020 to July 2020.

Systematic random sampling method was adopted for monitoring and evaluation by selecting more than 30% of the total area treated under various FDAs in the year 2016-17, whereas in the year 2015-16 the 100% evaluation of all the given sites has been done. Grading of various afforestation activities and quality of works was done on a scale of 1-10. Parameters for the evaluation of plantation on site selected, percentage of survival, health of plantation, maintenance, protection measures including fire, grazing, watch & ward, encroachment, illicit felling, record keeping, verification/supervision, involvement of people , species selection.

The afforestation models included were Aided Natural Regeneration (ANR), Artificial Regeneration (AR), Silvipasture Development (SPD), Medicinal plant (MP) and Bamboo Plantations (BP). The major activities included planting, soil moisture conservation works and entry point activities, as per project proposals of respective FDAs.

Study Design:-

To estimate the plantation under the scheme three sample plots were laid out in each plantation site. These three sample plot were occularly selected in good, moderate and low survival condition of plantation. Inside the sample plot plant survival and growth were enumerated.

Objectives of Research:-

1. Monitoring and Evaluation of FDAs.
2. Project Impact Assessment.

Activities Undertaken:-

1. Preparation of field staff evaluation format of plantation sites.
2. Range level Proforma.
3. Proforma for EPA works.
4. PIA works to be filled by interview of committee members, villagers, field staff & ocular observations.
5. Proforma for "Evaluation format for first concurrent evaluation of forest development agency projects sanctioned under National Afforestation Programme (NAP) scheme" .

Cost of the Project:- Rs. 41.14 Lakhs

Expected Outcome of Research:-

1. Estimation of growth including height of tree species in different forest divisions.
2. Estimation of survival percentage of tree species in different forest divisions.
3. Socio economic information
4. Reports were prepared on the basis of the information received as per format as well as physical & other verification and discussion with staff and people.
5. Project Impact Assessment on Villagers awareness, employment during execution and implementing forestry works, income as wages, effect on agricultural crop production and fodder production, soil & water conservation, regeneration status, presence of wild animals, water level, Documents verification, plantation journal, name of the nursery from where the seed and plants were received etc. (30 Final reports of the Year 2015-16 and 31 Final reports of the year 2016-17 were prepared and submitted to funding agency APCCF (GIM/ FDA) .

Grading of FDA project on scale of 1 to 10 (Plantation year 2015-16 and 2016-17)

S. No.	FDA 2015-16	Grade	FDA 2016-17	Grade
1	Badwaha	7.2, Very good	Badwani	7.2, Very good
2	Badwani	6.9, Very good	Burhanpur	5.07, Very good
3	Burhanpur	5.2, Very good	Damoh	6.7, Very good
4	Chhatarpur	5.5, Very good	Datiya	6.5, Very good
5	Datiya	6.8, Very good	Dewas	7.8, Very good
6	Dewas	7.3, Very good	East Chhindwara	6.0, Very good
7	East Chhindwara	4.7, Good	Hoshangabad	7.5, Very good
8	East Mandla	5.7, Very good	Khargone	7.6, Very good
9	Hoshangabad	5.8, Very good	Mandsaur	5.6, Very good
10	Indore	6.4, Very good	Narsinghpur	7.4, Very good
11	Jabalpur	6.8, Very good	North Balaghat	7.7, Very good
12	Khandwa	5.5, Very good	North Panna	5.0, Very good
13	Khargone	7.1, Very good	North Sagar	7.1, Very good
14	North Betul	6.2, Very good	North Seoni	6.8, Very good
15	North Sagar	6.9, Very good	North Shahdol	6.9, Very good
16	North Shahdol	7.4, Very good	Rajgarh	5.4, Very good
17	Satna	6.9, Very good	Rewa	7.5, Very good
18	Sehore	5.4, Very good	Satna	7.0, Very good
19	Sendhwa	7.5, Very good	Sheopur	6.8, Very good
20	Sidhi	7.2, Very good	Shivpuri	6.0, Very good
21	Singrauli	6.7, Very good	Singrauli	7.5, Very good
22	South Betul	6.0, Very good	South Betul	6.3, Very good
23	South Chhindwara	6.6, Very good	South Chhindwara	6.6, Very good
24	South Panna	6.2, Very good	South Panna	6.4, Very good
25	South Sagar	6.9, Very good	South Sagar	6.6, Very good
26	Umariya	7.5, Very good	South Seoni	6.9, Very good
27	Vidisha	6.3, Very good	South Shahdol	6.8, Very good
28	West Betul	6.4, Very good	Tikamgarh	4.5, good
29	West Chhindwara	5.7, Very good	Umariya	7.5, Very good
30	West Mandla	6.1, Very good	West Betul	7.7, Very good
31			West Chhindwara	5.6, Very good

6. Estimated plant growth, of the plantations in different divisions and photographs of plantation site also taken with Geo-cordinate to verify it.

7. Estimated survival percentage, in different divisions, and photographs of plantation site also taken with Geo-cordinate to verify it.

8. Socio economic information (microplanning, entry point activities, meeting register, cash book, pass book, audit , people participation, soil water conservation,male female in JFMc, fuel , fodder, grass etc) .

9. Quantitative analysis, Qualitative analysis, Project profile, Physical target, physical achievement, Financial target, financial achievement etc.

10. Project Impact Assessment on Villagers awareness, employment during execution and implementing forestry works, income as wages, effect on agricultural crop production and fodder production, soil & water conservation, regeneration status, presence of wild animals, water level, Documents verification, plantation journal, name of the nursery by which the seed and plants received etc.

The ultimate outcome of the monitoring and evaluation is to assess the availability of ground water by soil and water conservation measures, the extent to which the water bodies have got recharged and any qualitative and quantitative increase of fodder production thereby improving the livelihood opportunities of village communities of forest division area. Regeneration and eco-development of degraded forests, increase in the availability of fuel wood and grasses, increasing production of NTFPs. NAP encourages peoples' participation and generation of employment especially for forest dependent communities. Due to this programme the ecological restoration and environmental conservation through peoples' participation has been achieved. Capacity building and skill development also increased in rural areas.

FDA work of Umariya (plantation year 2015-16) ANR model

FDA work of Datiya (2016-17) - ANR model