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### **SELECTED PHOTOGRAPHS**

### *Executive Summary*

The Final Evaluation of the projects sanctioned to the Department of Forests, Environment & Wild Life, Govt. of Sikkim, during the ninth plan period for “Non-Timber Forest Produce (NTFP) and Medicinal Plants (MP) Scheme, was undertaken during November 4-11, 2004, as per the convenience of the Department. The evaluation team visited all the four NTFP ranges (Sikkim: North, South, East and, West) where project had been implemented.

Out of total 294 sites treated, a sample of 80 sites, were selected for an in-depth evaluation i.e. about 27% of the total area covered. The total sample area constituted about 34% of total area of 4,804 ha. planted in the state under the project. The sites evaluated included all types of plantations i.e. (i) Mixed medicinal plantation; (ii) Bamboo plantations; and, (iii) NTFP plantation including medicinal plants. The evaluation study has been indicative but conclusive in nature. The exercise has been conducted through a triangular approach adopting the tools of: -

- Secondary research; Enumeration / RRA (Rapid Rural Appraisal); Evaluators field observation about quality of work and its success / failure.
- The data input has been collected from all the four NTFP ranges and, above three sources with appropriate tools and, enumeration procedure mentioned in the Chapter-2. The probing exercise attempted further the viewpoints of cross-section of stakeholders on different aspects ranging from relevance of the project to implementation methodology, community participation and socio-economic effectiveness of the project.

The department through: Project-I to Project-IV, has treated 294 sites spread over four ranges of state during the Ninth Five Year Plan starting from 1997-98 to 2001-2002. These have been treated as per prescribed norms i.e., in accordance with the guidelines of NAEB, MoE&F, Gol, covering an area of about 4,804 ha. of area with total capital out lay of Rs. 618.79 Lakhs.

The financial target and achievements have been as per plans. While under taking quantitative analysis, it was revealed that the total area coverage during the period under reference has been indicated at 4,804 ha, whereas total area classification, reports indicate coverage of 4,625 ha. comprising: Bamboo plantations (1,915 ha.); Mixed Plantations with MFP & MPs (1,510 ha.); and, regeneration of perennial plantations of H&MP (1,200ha.)<sup>1</sup>. The State department has perhaps taken up additional area of 175 ha. within the same funding. This is of course a very positive effort on the part of project implementation unit. However, *the Forest Dept. may look into such difference in reporting to avoid confusion in future.*

The people's participation has been reasonably good in the project ranges. The department has already completed 103 micro-plans through participatory rural

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<sup>1</sup> As given in the Chapter-3: Table 3.03 below.

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appraisal in 24 villages. One village has even, 7 to 8 sites treated and hence the PRA has been conducted on JFM village level and one micro-plan has inputs for more than 2-3 sites. The expenditure incurred on the preparation of micro-plan has been Rs. 11.47 Lakhs i.e. 2% of total project outlay during the 9<sup>th</sup> Five Year Plan period.

Under the entry point activities (EPA), the department has covered 60 villages in all the four ranges with an amount of Rs.28.40 lakhs. The major activities undertaken under this component are: improvement of water harvesting centre; improvement of existing water bodies; repairing of irrigation channel; repairing of community assets etc.

The Joint Forest Management Institution in Sikkim has been named as Forest Protection Committees (FPCs). The project in hand has been implemented in 103 villages through JFM concept by covering 4947 families. These comprise Women (16.14 %), Schedule Casts (3.06 %), Schedule Tribes (40.86%) and, others (39.94%). The villagers brought under JFM were facilitated with village fund. *However, on completion of the project none of these VFCs have any fund left in their accounts.*

While examining JFM meetings, the records explicitly reveal that only one general body meeting and executive's body meeting each have taken place every year. The VFCs along with the Forest Department have prepared 103 micro-plan which all have been duly discussed, ratified and agreed by the VFCs.

All together 201 staff has been trained in different aspects of JFM, afforestation, PRA, protection, micro-plan preparation etc. The training was also extended to the community participants. Strength of 3,095 community members was trained in different aspects of forestry, JFM and other related fields. Normally forest officers themselves have conducted the trainings at different level. No external organization has been involved in the training. However, department need to be encourage outside training, especially to the neighboring states (as seeing is believing). This would not only encourage staff but also help them to have an exposure. Such encouraging acts could improve the project output.

The monitoring and evaluation reveal that besides internal monitoring, senior officers of the state for most of the project sites have given % age of survival reports of the plantations. An M&E had also been conducted by an external agency. However, the findings of both these evaluations have been almost similar.

The present evaluation reveals that the selected area sites have been accurate as per NAEB guidelines and as per the local terrain and soil conditions. The treatment sites have mostly been selected by both i.e. the community as well as the Forest Department authorities together. Efforts have been made to avoid plantations on rock sheets and areas with steep slopes. None of the areas visited by evaluators showed access to cattle and any other kind of biotic pressure.

The project has adopted three broad categories of species i.e. bamboo, tree species of medicinal plants and NTFPs and perennial medicinal plants of shrubs varieties. Around 108 species selected are all-native to the place and also found wildy in the area. The species are of economic value likely to fetch good market value both in short -term and the long-term. The species such as *Jatamansi*, *Kutki*, *Pakhen Bed*, *Ban Lasun*, *Chiraita* etc. are perennial crops able to generate income the very next year but has not been exploited due to Sikkim State Govts. ban imposed on harvesting of them at the moment.

Similarly, about six different local species of bamboo are capable of generating employment through their use in local crafts etc. The other NTFP species are capable of bearing fruits, barks, leaves of medicinal value with species like *Nakima* is widely used for pickle making and anti-diabetics. The species have been selected through community consensus and in general the community has chosen those species, which are used by them in their day-to-day life. Thus the species selected conform to both the NAEB guidelines as well as their socio-economic utility.

If survival rate of plantations were to be talked comparatively, the northern zone has recoded the best survival rate followed by, east, south and west. The southern and western zone in particular have shown comparatively lower survival due to drought conditions and also frequent hailstorm in these areas. The range-wise overall survivals of 84 (out of 294) sites reveal overall 76 % survival rate comprising of: North (82 %), South (73 %), East (80 %) and, West (64 %). Though the survivals have been estimated against comparison of pits created during the plantation. However, as maintenance measure gap filling have been considerably done and hence the existing number of plants surviving exceeds the prescription. On some of the sites the survival rate outnumber the prescribed number of plants. In view of this, the survival rate in case of Sikkim has not much of relevance as almost all the plantations accommodate more number of pants than prescribed.

The assets created have shown excellent survival but the sustainability; particularly in the high altitude areas are in question. The project authorities hence must concentrate on maintenance of the species planted in the higher altitude areas, which may not attain a good growth unless strict maintenance measures and, some technical intervention are adopted to make them sustainable.

In all the sites visited by the evaluators the communities have opined that they have decided the choices of species in consultation with the forest officials. All these species have been selected as per local need. For example:

- The species like *nakima* yields high value fruits for local vegetable needs and also pickle making.
- Similarly, the species of bamboos are widely used by the communities for basket making and designer decoratives.
- Medicinal plants and herbs are commonly used for local disease and hence are highly preferred by the community.

The interventions made are certainly going to result in huge production of marketable forest produce. Income generation is the central point of this project. The department has not made any arrangement for marketing of produce. The crops will be harvestable by next year and may be in lack of marketing arrangements the expected level of income does not emerge. It is critical for the state government to make such arrangements through a market study, buy back arrangements and institutionalization of a marketing network.

The NTFP and the medicinal plants planted in the project are of high economic importance. The Forest Department along with FPCs has rightly chosen the high value species such as *kutki*, *chiraita*, *bhui-champa* etc., which are capable of fetching higher market price. These perennial medicinal plants might have already generated income to the community and the Government but the State Govt. has imposed a ban on extraction of these plants from any source in the state, harvesting could not be done and thus no income.

The qualitative analysis issues like: Awareness Quotient, Community Involvement in Interventions, Protection and Maintenance, Maintenance of Records, Plantation Journals, Project Reporting Activities, Project Constraints / Limitations, Suggestions for Improvements have been dealt at length under Chapter-4, which may be referred to for future guidance.

- Evaluation findings summarized as overall grading of the project in the following table: -

<b>GRADING OF PROJECT ON A SCALE OF 1 TO 10</b>
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<b>QUANTATIVE ASPECTS</b>	PHYSICAL	9
	FINANCIAL	9.5

<b>QUALITATIVE ASPECTS</b>	SURVIVAL	7.6
	HEALTH OF PLANTATION	7.0
	MAINTENANCE	6.0
	SUSTAINABILITY	7.0

<b>JOINT FOREST MANAGEMENT</b>	DEGREE OF PEOPLES PARTICIPATION	8.0
	SATISFACTION ACHIEVED	8.5
	BENEFITS BY LOCAL POPULATION	5

<b>OVERALL GRADING OF THE PROJECT</b>	<b>OUTSTANDING (8-10)</b>	<b>VERY GOOD (5- &lt;8)</b>	<b>GOOD (3-&lt;5)</b>	<b>POOR (&lt;3)</b>
	<b>8.5</b>			