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FINAL EVALUATION
OF
NATIONAL SOCIAL FORESTRY PROJECT

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EXECUTIVE SUMMARY

A joint World Bank-USAID team reviewed the National Social Forestry Project (386-0495) in October 1990 to determine the progress made since the Midterm Evaluation in 1988. The information gained from this evaluation serves two purposes. For the World Bank, which will continue project assistance for two years, the review was its regular, twice-yearly supervision. For A.I.D., which is terminating formal project support in December 1990, this review measures project progress and identifies opportunities for providing needed support through alternative funding to ensure sustainable project results.

Purpose of the A.I.D. Program Evaluated

The overall objective of this jointly-funded project is "to raise incomes and employment among the rural poor by increasing production of small timber, fuelwood, fodder, and other forest products. An important collateral goal, served by achievement of the main goal, is to arrest erosion of the natural environment caused by deforestation." To meet these objectives in a sustainable way, the $330 million project was designed to strengthen public and private institutions in the states of Gujarat, Himachal Pradesh, Rajasthan, and Uttar Pradesh in coordination with the Ministry of Environment and Forest of the Government of India(GOI).

Purpose of the Evaluation and Methodology Used

Responding to the needs of the two international donors, this evaluation is a final review for A.I.D. and an interim review for the World Bank in order

1) to determine the extent to which strategies and recommendations from the Project's Midterm Review and subsequent evaluation/supervision missions of the World Bank and USAID have been implemented
2) to assess the progress towards achieving project targets and specific objectives
3) to identify critical areas where additional inputs are required over the next two years to ensure sustainable project development.

The Evaluation team divided into two cross-disciplinary groups comprised of members of both organizations to make field visits: one team visited Gujarat and Rajasthan; the second, Himachal Pradesh and Uttar Pradesh. The team employed the World Bank's field supervision methodology and placed primary emphasis on updating information since the previous World Bank/A.I.D. review in March 1990. The teams met Forestry Department Officers; visited field sites to view a range of on-going activities; talked with farmers, women and NGO representatives; and had a wrap-up session with project implementing agencies in each state. The primary products of this exercise are i) the Evaluation and State Synthesis Report and ii) Aide Memoires for each of the four states which include detailed observations and recommendations, and iii)technical reports that discuss various aspects of project implementation.

Findings and Conclusions

Good foundations have been laid in both field and capacity building activities. The tempo of past field activities has been good and overall targets have been satisfactorily met. Technology is being refined and starting to be adopted in some places, and analytical studies in marketing and seedling pricing are addressing policy issues. The level of physical activities must be maintained while incorporating public participation and policy changes in order to sustain the gains made thus far.

While tree planting should receive continued support, institutional capacity building activities need further strengthening through training, research and technical assistance over the next two years to enhance the prospect of project sustainability. Gujarat and Uttar Pradesh have established successful state-level organizations, but Himachal Pradesh and Rajasthan have yet to accomplish such organization. Although the concept of local participation in decision-making has been introduced, local people are seldom involved in plannning; miocroplanning as a tool for ensuring greater participation has not yet been effectively utilized. The accomplishments under NSFP are substantial; any negative focus in this evaluation is meant to provide guidance for the coming two years of the report.

The Tree Planting Programs, or field activities, include Private Forestry, Public Forestry, and Experimental Programs. Establishment of decentralized nurseries and distribution of seedlings have met or exceeded goals established for Private Forestry. Although the recommended pricing policy of average cost plus margin for profit and risk-taking has not yet been adopted, incremental steps toward this goal have begun. One of the major concerns identified by the team is that the area of plantings is not as large as implied by the number of seedlings distributed; available reports for Phase 1(World Bank, 1980-84) in Gujarat and Rajasthan show that the

survival rate is as low as 30-36%. The team also feels that the Project has focused on seedling survival to the exclusion of seedling growth after survival. A final concern is that farmers are not commited to plantings after the first harvest of mature trees. The GOI must implement policy changes that permit market economies to act so that planting and harvesting trees is profitable.

Public Forestry efforts have established a foundation for microplanning, but the evaluation found that the local population does not participate in any of the components of the decision-making process. Gujarat has successfully distributed the benefits of the final harvest and has established a plan for regeneration of communal woodlots, but no such plans or funds exist in other states. India's complex political, economic and caste systems at the local level complicate implementation of the "blueprint" process; planning must be tailored to each community.

Experimental Programs have experienced mixed success. Both tree tenure and tree patta programs have had uneven results; only Uttar Pradesh is continuing both programs during the next two years. Species typically used in the tree patta program in wasteland areas must be identified and improved. Private wasteland planting has been moderately successful, but no plans are evident for replanting after the first rotation.

Institutional Development includes four areas: State Level Organization and Management; Research and Studies; Planning, Monitoring, and Evaluation; and Technical Assistance, Training, and Extension. State level organization efforts have had mixed success. Both Gujarat and Uttar Pradesh have effectively established separate social forestry wings with independent lines of control and clear chains-of-command. Neither Himachal Pradesh nor Rajasthan, the two states in question at the Mid Term Review, have yet reorganized, but they have added additional field personnel or specified divisions that do social forestry activities.

NSFP has succeeded in establishing the foundations for research programs in all states with commendable progress, but work remains before desired results are accomplished. Particular attention should be given to social science research to ensure more successful microplanning activities. All research programs need to be systematized to ensure adequate breadth and depth of coverage as well as transfer of technology.

Considerable progress has been made in monitoring and evaluation activities, and two specific recommendations of the Midterm Review were completed. The Operational Guide has been useful in establishing reports that are consistent among the states; however, some flexibility must be built into the system to allow for unique state level needs. The most serious problem remaining is inflexible data processing which needs to be remedied by updated equipment, software, and training. Technical assistance and training for field personnel has been particularly successful in the biological and technical areas, but has not addressed social concerns. Expanded social science training in the state Forestry Departments should lead to improved user participation.

Recommendations

Much has been accomplished under the NSFP. The tempo of the physical activities must continue while more strongly incorporating public participation and policy changes to ensure sustainability. The recommendations from the Evaluation and Four State Synthesis Reports are primarily for implementation by the four state governments and by the GOI. The World Bank, as sole remaining direct donor, is responsible for funding, oversight, and coordination of the National Social Forestry Project until its termination in 1993. A.I.D. is listed as having responsibility only for the purpose of identifying where it might provide professional services/related support for training, research and technical assistance through other funding mechanisms.

CHAPTER 1 : BACKGROUND

Introduction

The following provides background information related to the Evaluation and Four State Synthesis Reports. The three sections cover:

- o Purpose of the evaluation
- o Description of the National Social Forestry Project and Evaluation Methodology
- o Methodology

Some definitions are helpful at this point because of the jargon of two institutions working jointly on the evaluation. Readers will see the words "evaluation" and "Supervision" throughout this report. They are considered broadly synonymous and used interchangeably in the text of this report, however, in reality the distinction is important. For the World Bank, this was a regular 6 month supervision to estimate project progress since the last supervision in the early part of 1990 and make recommendations for the 2 year extension of the project. For USAID, this was a broader evaluation of overall progress since the Midterm Evaluation (carried out in 1988). Of lesser importance is the distinction between "mission" and "team". Both refer to the group of experts who worked on the supervision/evaluation under common Terms of Reference.

Purpose of the Evaluation

The evaluation of the National Social Forestry Project (NSFP) has three basic purposes:

1) Determine the extent to which strategies and recommendations from the Project's Midterm Review (MTR) and subsequent evaluation/supervision missions of the World Bank and USAID have been implemented.

2) Asssess the progress towards achieving project targets and specific objectives, and

3) Identify critical areas where additional inputs are required over the next two years to ensure sustainable project development.

Description of the National Social Forestry Project

The World Bank and USAID initiated the National Social Forestry Project in the States of Gujarat, Himachal Pradesh, Rajasthan, and Uttar Pradesh and with the National Minsitry of

Environment and Forest of the Government of India (GOI) in 1985. The five year cost of the program was estimated at the outset to be $327.8 million with A.I.D. contributing $80 million ($77 million in loan funds; $3 million in grant funds; plus an additional 3.5 million for project administration) and the International Development Association of the World Bank contributing $165 million. The GOI was to contribute $82.8 million.

In general, the NSFP was planned and implemented to provide both goods and services from forests and trees. It has also attempted to provide opportunities to rural populations in the form of employment generation through the establishment and maintenance of nurseries and tree plantings on private and public lands. The original goals of this jointly funded project were "to raise incomes and employment among the rural poor by increasing production of small timber, fuelwood, fodder, and other forest products. An important collateral goal, served by achievement of the main goal, is to arrest erosion of the natural environment caused by deforestation".

Project activities had two major components: Tree Planting activities and Institutional Development. The components under Tree Planting have been: private farm forestry, public forestry on community and government lands, and experimental programs such as providing tree tenure for poor and landless farmers. Institutional Development activities, complementing these, have been a range of organizational, policy, research and studies, technical assistance, training and extension, planning, and monitoring and evaluation activities. These are discussed in more detail in the Evaluation and Four State Synthesis Report. USAID's support for the National Social Forestry Project ends on January 1, 1991. World Bank and GOI support, which was also to end will be extended until March 1993.

Methodology

The Evaluation/Supervision began with a one-half day team planning meeting in Delhi. During this period, members of the combined World Bank and USAID team reviewed the background for the assignment, the scope of work and the suggested methodology for the assignment. The USAID-contracted team members continued this orientation at USAID on the afternoon of the first day.

On the second day, the team divided itself into two groups, with each group visiting two States:

Gujarat and Rajasthan

World Bank:	P. Guhathakurta, Forestry and institutional issues
	V.P.S. Verma, Seedling distribution program issues
	R. Ng, Monitoring and Evaluation
USAID	W. A. Leuschner, Economic issues

Himachal Pradesh and Uttar Pradesh

World Bank:	A. K. Banerjee, Forestry and institutional issues
	A. Contreras, Environmental issues
USAID	J. K. Parker, Social issues

The dates of the field visits were:

Gujarat	October 4- 8, 1990
Uttar Pradesh	October 4- 8, 1990
Rajasthan	October 9-13, 1990
Himachal Pradesh	October 10-13, 1990

The team employed the World Bank's field supervision methodology, placing primary emphasis on updating information since the previous supervision, conducted in March 1990. The teams held meetings in Forestry Department offices, visited field sites, where a range of activities are on-going, met with villagers, and had wrap-up sessions with State officials in each State. Final report writing took place in New Delhi.

The primary outputs of this exercise are the: i) Evaluation and State Synthesis Report; and ii) Aide Memoires for the four States which include more detailed observations and recommendations.

Additionally, team members have written reports which cover the following topics: Monitoring and Evaluation, Decentralized Nurseries, Environmental Concerns, Economic Issues, and Social Aspects of project implementation. The members contracted by USAID were specifically responsible for reports on economic and social aspects of the project's evaluation. Team members based their aide memoires and technical reports on a number of data sources, including:

- Project records and documents, including the 1988 Midterm Review
- Subsequent World Bank/AID supervision mission reports
- Meetings with World Bank and A.I.D. staff
- Meetings with State government officials
- Forestry Department update reports
- Field records and Monitoring and Evaluation and other studies and research reports
- Field site observations
- Discussions and interviews with farmers, panchayat members, NGO representatives, women's groups and others.

The recommendations from the Evaluation and Four State Synthesis Report are primarily for implementation by the four State Governments and by GOI. The World Bank, as sole remaining direct donor, has principal responsibility for funding, oversight, and coordination of the National Social Forestry Project until its termination in 1993. USAID is listed as having responsibility only

for the purpose of identifying where it might provide ancillary inputs for professional services through other funding mechanisms.

Organization of the Report

The report that follows include overall findings and recommendations for 4 States in chapter 2. The aid memoires for 4 States and central support office containing main findings and recommendations for each are presented in chapter 3. The technical analysis of social, economic, environmental aspects of national social forestry and details of decentralized seedling production and monitoring and evaluation are presented in chapter 4.

Annexures 1-3 include a copy of World Bank letter to the Ministry of Environment & Forests, GOI highlighting major recommendations, status of convenants and schedule of disbursement for the project as a whole. Annexures 4-7 include for each state separately some useful tables focusing on physical and financial plan, status of covenants, status rating of activities, key physical indicators (of progress, incremental staff deployment, wood saving devices, construction of buildings, vehicle procurement, training), schedule of disbursement, financial achievements and status of reporting which were required in each aide memoire as per World Bank requirement.

CHAPTER 2 : OVERALL FINDINGS AND RECOMMENDATIONS

Introduction

14. This Evaluation and Four State Synthesis Report includes the following sections:

- o Evaluation of general progress of the National Social Forestry Project (NSFP) since the 1988 Midterm Review
- o Four State Synthesis report of critical policy and technical issues from the October 1990 supervision mission.

General Progress

15. This section contains an evaluation of the general progress made from the Midterm Review of the National Social Forestry Project to date. The mission examined field activities under the heading of Tree Planting Programs and capacity building support activities under the heading of Institutional Development. The general conclusions of this evaluation are that good foundations have been established in both field and institutional activities.

16. Progress has been made toward meeting the project's overall goals and objectives. The project's goal was to raise income and employment among the rural poor by increasing production of small timber, fuelwood, fodder and other forest products. A collateral goal was to arrest erosion caused by deforestation. Quantitative assessment of progress towards these goals would take an investigation of much wider and deeper scope than provided by the time and terms of reference for this Evaluation. However, anecdotal evidence does exist that suggest certain trends that should be investigated further. In several places, for example, but particularly Gujarat, evidence showed that income and employment generation were occurring as a result of the National Social Forestry Project. Almost all farmers in Gujarat were establishing plantations primarily for a cash crop rather than for household consumption. Additionally, team members saw small fuelwood deposit areas in towns along the highway (NH 8) which had sprung up in response to farmers having fuelwood to sell. Thus, farmers and fuelwood sellers had income and expanded employment opportunities. In contrast, a draft report on the impacts of the NSFP in Uttar Pradesh suggests that the employment generation impacts of the project have been minimal (See Social Aspects annex section, page 8). The ORG (1990) marketing report states that NSFP species have become lower priced substitutes for older growth, natural forest species previously used in construction and

manufacturing. Thus, fewer of these species need to be cut, and all other things being equal, deforestation very likely has be slowed. Additionally, in many areas, community woodlots have stabilized land or trees have improved the pH of wasteland soils which has generally improved environmental conditions (see Environmental technical report).

17. Progress also has been made toward accomplishing the recommendations of the Midterm Review (see part I, pp. 63-65) to varying degrees. For example, only Gujarat gives a limited number of seedlings to farmers free. In all States seedlings sold to farmers are priced, but in none of the States does the price reflect the cost. Further, some but not all tree felling and transportation restrictions have been liberalized. The tempo of past physical activities has been good and overall targets, as stated in the SAR/PP and modified by the MTR, have been satisfactorily met (also see the individual Aide Memoirs for each State). Other recommendations have not been as fully met. For example, monitoring and evaluation reports are still typically tardy, and few women have been recruited and hired for work in Forestry Department social forestry programs (see Social Aspects technical report).

18. A general conclusion is that, while the program has moved toward the sustainability of field activities, it is not assured at this point. While tree plantings should continue to receive support, institutional activities, including Monitoring and Evaluation (M&E), need additional strengthening through technical assistance, training, extension, and research over the next two years to enhance the possibility for effective and sustainable social forestry efforts in the four States.

19. The following provides a general overview of the progress of that National Social Forestry Project by component. The accomplishments under NSFP are substantial and any negative focus contained herein is meant to provide guidance for the coming two years. It is important to maintain the tempo of physical activities in the future while more strongly incorporating public participation to maintain the assets created heretofore.

A. <u>Tree Planting Programs</u>

20. Tree planting programs include Private Forestry, Public Forestry, and Experimental Programs.

21. <u>Private Forestry</u>: Adequate progress has been made in seedling distribution and establishment of decentralized private nurseries. Tables in each State Aide Memoire indicate that many targets have been met or exceeded. Additional, available studies (e.g., in Gujarat) show that seedlings are well distributed among marginal, small and large farmers.

22. An average cost plus margin for profit and risk pricing policy for seedlings distributed by Forest Departments (FD) has not been

adopted in spite of repeated recommendations to do so. However, the allowable number of free seedlings given in Gujarat has been decreased, and seedlings are priced (albeit, at a concessional rate). The World Bank is making changes in seedling pricing as a condition for extension of the NSFP (See Economic Issues technical report).

23. Monitoring and Evaluation (M&E) reports on nursery surveys for the current period were not available at this writing, therefore it is difficult to evaluate the number of sustainable plantings established by farmers receiving seedlings. However, one indicator comes an Evaluation Report from Phase I in Gujarat. This report showed that state-wide roughly one third of seedling recipients had moved, died or were otherwise untraceable and that the mean seedling survival rate was only 36 %. Another indicator comes from the Rajasthan Aide Memoire (attached) These two indicators do not provide firm evidence for the entire project areas, however they do suggest that the area of plantings is not as large as that implied by the number of seedlings distributed. Another issue is that seedling survival has been focussed upon almost to the exclusion of seedling growth after survival. It is important to know whether trees are growing to their full potential after planting.

24. No evident plan for sustaining the program of plantings after their harvest at maturity at the end of the first rotation. In Gujarat, markets for wood exist and farmers are growing trees as a cash crop. Further, several of the States are in the process of liberalizing their tree felling and transportation rules (see Aide Memoirs). These conditions all provide incentives for farmers to regenerate plantations upon final harvest. However, they are not sufficient to guarantee that the farmer, acting as an independent person, will not convert the harvest land to another use or allow it to become wasteland. A similar situation exists in the southern U.S. among the non-industrial small private forest landowners, many of whom are not regenerating their harvested woodlands to full stocking.

25. Alternative technical options are being evaluated by the States at on-station research sites (see section on Research and Studies below), but demonstration areas and on-farm research activities remain to be emphasized in the project's last two years.

26. Public Forestry: The foundation for microplanning or variations on that theme (e.g., Integrated Resource Management Plans) has been introduced but widespread, meaningful people's participation in planing and management is generally lacking on Public Lands where Forestry Departments have maintained management responsibility. Gujarat forestry professionals and technicians visit individual households, but foresters in other States rely mainly on panchayat level input at best. Village Development or Community Forestry Committees have typically not functioned well in the few places where they are found. The roles of women and NGOs need to be identified and tapped wherever possible for improved

participation at the community level (See technical report on Social Aspects of Project Implementation). Microplans do typically include planned intermediate benefit flows, type of harvest cut, or regeneration technique source(s) of funds. These will have to be added to micro- and other planning to increase the likelihood of benefit distribution and sustainability (see Economic Issues technical report on microplanning).

27. Benefit distribution, to the extent that it has occurred to date, has had varied levels of success in achieving the NSFP's equity objectives. Most Forestry Departments (FD's) state that benefits are available to all. However, clear definition of benefit distribution has been lacking during the microplanning process in many cases, and the complexities of India's political, economic, and caste systems at the local level complicate any ideas that a "blueprint" process for benefit distribution might be instituted (see technical report on Social Aspects). This is an additional reason for promoting microplanning efforts that provide both a process and a forum for open discussion that can help clarify definitions for benefit distribution at each locale. Final harvest benefits are typically well-distributed in Gujarat but are less well-distributed elsewhere (See Economic Issues technical report section on benefit distribution/Community woodlots).

28. A promising trend for regeneration of Communal Woodlots may be found in Gujarat. There, twenty-five percent of Communal Woodlot sales are earmarked for forestry purposes and deposited in a joint bank account under the names of the panchayat and the forest officer. Thus, funds, which cannot be used for any other purpose than forestry, will be available to the panchayat over time. It is believed that this will increase the probability that the Community Woodlot will be regenerated with the use of these funds.

29. Experimental Programs: Tree tenure programs have proven unsuccessful in those States where they have been tried and have been stopped except in Uttar Pradesh. More in-depth investigation is required to determine the causes of failure to date, but some seem readily evident. The tree patta programs have focused primarily on the landless and most marginal farmers. Trees, as a crop, are more risky for these groups than for any others. The land on which these schemes have been attempted are typically the worst available and needed inputs such as water are usually unavailable. Species for these wastelands areas need to be identified, improved and made available with management information and additional inputs. Uttar Pradesh continues to seek to ensure some degree of success in these tree patta programs over the next two years and should be provided support (See Aide Memoire for Uttar Pradesh and Social Aspects technical report).

30. Private wasteland planting which provides a financial incentive to the private landowner has been moderately successful (see tables in each State Aide Memoire). However, there are no plans for sustainability evident beyond the first rotation. Real danger exists that plantings will revert to wasteland upon final

harvest because subsidy payments will no longer be given as an incentive to the individual private landowner for tree planting (See Economic Issues technical report section on benefit distribution--social security/household forestry).

B. Institutional Development

31. Institutional development activities include State Level organization and management; research and studies; planning, monitoring and evaluation; and technical assistance, training, and extension.

32. State Level Organization and Management: Accomplishment is mixed in this program component (see separate Aide Memoirs). Gujarat and Uttar Pradesh have established separate social forestry wings with independent lines of control for social forestry operations and clear chains-of-command to the upper echelons of the state organization. Unfortunately, Himachal Pradesh and Rajasthan, the two States in question at the time of the Midterm Review, have yet to be reorganized. Himachal Pradesh has submitted a reorganization plan but Rajasthan has not. In general, lack of reorganization is handicapping project implementation.

33. Research and Studies: NSFP has succeeded in establishing the foundation for research programs in all States through a variety of institutions (e.g., state research institutes and universities). Commendable progress has been made but work remains before desired results are accomplished. Some alternative agroforestry and silvopastoral models have been established and some growth and yield studies begun, but technology transfer has not been present in all cases. Little, if any, social science research exists in formal research programs. No systematic collection, summarization, and dissemination of information which would be useful in financial and economic analyses for guidelines in adopting new biological alternatives are available (see Economic Issues technical report section on Private Forestry BCA).

34. Research programs have developed piecemeal and are in need of systematization to ensure adequate breadth and depth of coverage. Further, research design and methodology are poor in several instances (see State Aide Memoirs). This is reflected not only in internal studies but also in poor design used in contracted studies (e.g., Uttar Pradesh). A thorough, considered, research review by the USDA Forestry Support Program, or a similar organization, is needed, and technical assistance should be provided to strengthen research capabilities (See Economic Issues technical report section on Research).

35. Planning, Monitoring, and Evaluation: NSFP has succeeded in establishing the foundation for Monitoring and Evaluation (M&E) activities. The Operational Guide (Red Book) is useful in establishing reports which are consistent between States so that interstate comparisons can be made. However, these reports are not always useful for State level management because they may not

contain information about unique State problems with which the State administration must deal daily. Flexibility must now be built into the system to allow for unique State level needs. M&E units also have problems in obtaining timely data submission from other agencies which delays State reports.

36. The sampling designs for farmer and social surveys need re-examination to improve consistency between different types of surveys. Further, the survey reports are rarely written and received in timely manner. Additional hardware, flexible general software, and training in the use of both are needed (see Monitoring and Evaluation technical report).

37. Technical Assistance, Training and Extension: Technical assistance and training for field personnel have been particularly successful in the biological and technical, as compared to the social aspects (see Aide Memoirs and Social Aspects technical report). The program is now becoming more demand- rather than supply-driven. Computer training has been adequate to date, but broader and more advanced training is now needed (see Monitoring and Evaluation technical report). Lack of social training in the Social Forestry Departments is of particular concern, particularly in terms of continued sentization of foresters and technicians about the need for people's participation and in social science techniques to obtaining unbiased, unintimidated participation.

38. Forestry extension particularly needs technical assistance and training. Little evidence exists of a coherent extension program in most of the States (see Aide Memoirs). Most extension and training activities seem to occur in the Social Forestry Department or Wing line organization.

39. This summarizes the general progress of the National Social Forestry Project since the Midterm Review. The next section outlines more specific findings on critical policy and technical issues identified by the Supervision mission as a summary for the GOI of the four State Aide Memoirs.

Four State Synthesis Report of Critical Policy and Technical Issues from this Supervision

40. This is the overview of critical policy and technical issues identified by this Supervision. It deals only with those issues that the mission feels are common to all States and on which GOI has a coordinating role in helping to resolve as the project moves into its two year extension phase. The ten critical issues (elaborated on below) are:

* Organizational issues
* Restrictions on felling and transportation of social forestry trees
* Decentralized people's nurseries and seedling prices
* Technology
* Environmental issues
* People's participation
* Joint Forestry Department/panchayat planning
* Research, extension and training
* Monitoring and evaluation
* Disbursement, budgets and credit extension

The following provides greater details on these issues:

Organization Issues:

41. The program of organizational development for carrying out social forestry (SF) activities varies in the four states. While U.P. and Gujarat have established separate lines of control for SF works, H.P. and Rajasthan have not. The mission urgently recommends that the National Wasteland Development Board (NWDB) take this organizational arrangement up with H.P. and Rajasthan to establish separate lines of control at the time of responding to the prerequisites for the credit extension.

Restrictions on Felling and Transportation of Social Forestry Trees

42. Some of the obstructions to full development of the potential of tree planting on farms are acts and regulations that restrict the felling and transporting of timber raised by the farmers on their private lands. Restrictions vary from state to state but are generally of the following categories:

* Felling of many tree species needs government permission;
* Trees below a certain age (10 years in Himachal Pradesh) or a certain diameter (20 cm proposed in Himachal Pradesh) cannot be felled without permission;
* Trees permitted to be felled are not allowed to be transported without a transit pass issued by the government;
* Areas more than a certain extends (2 ha in Uttar Pradesh) can not be felled without permission.

43. Farmers, more often than not, plant trees for sale to

supplement their farm income. Unless they are sure that they can dispose of the tree product as they want, they would naturally be hesitant to plant. The usual argument by the government that permission is quickly and liberally given is not borne out in comments by growers.

44. The Bank and USAID have requested the state governments and the NWDB to remove these restrictions. While most States have increased the number of "exempt" species, they have not given up restrictions on other species and on transporting of felled trees. The States usually argue that if all species are exempted, then this will encourage people to surreptitiously remove forest trees and farmers to fell all their private trees to gain immediate profit. These arguments are not valid. Firstly, theft of trees has to be controlled in situ and not while they are being transported, thus the restrictions do not serve their true purpose. Secondly, most farmers are as prudent as anyone else to look after their own interest, both over the short term and the long term; without appropriate incentives to cut, farmers simply have no incentive to grow trees.

45. Under the circumstances, the mission recommends that NWDB take the initiative to call upon the States to remove all restrictions on felling and transport of trees grown under Social Forestry. More specifically, the mission recommends: (i) removal of all restrictions on felling of any tree in private land, and (ii) permission for free movement and sale in any part of the country.

Decentralized People's Nurseries (DPN) and Seedling Pricing:

46. In this scheme, the kisans are allowed to grow seedlings on their own land and DPN provides a cost incentive. The kisan may sell seedlings in the market but he cannot do so at as reasonable a price at the various Forestry Department (FD's) which, through their NSFP and other schemes, are giving free seedlings to a certain extent and selling others at a concessional price. The mission, therefore, recommends that the GOI and states should develop a consistent seedling pricing policy which prices seedlings at average cost per seedling sold plus a margin for profit and risk.

Technology

47. Tree products raised under social forestry have now started coming into the market. In fact, in certain places, prices of some products such as poles have come down, indicating that supply is outstripping demand. But taking the whole country into consideration, or even the project area, supply is much less than overall demand. Yet, the fact remains that the large number of seedlings planted could have produced much more output had the technology been appropriate to realize their potential growth.

48. Lower growth rates have been caused due to flaws in technology. In most parts of the project area, rainfall is

unimodal, with most rain falling during the monsoon. The intensity of the rainfall is high so that most of the water is not captured in the soil. This leaves little moisture during the rest of the season for the plant to grow vigorously. Even if the annual rainfall is high, because of higher run off, selection of species has to be restricted to a few hardy ones, such as Eucalyptus, Pine, etc. We could select a lot more species if we could introduce moisture conservation technology. The Bank and USAID have tried to promote soil and moisture conservation practices in the plantation technology. The proposals have been:

* Improvement of seed quality,
* Introduction of contour v. ditch or contour trenches,
* Introduction of local shrubs on contours, and
* Introduction of vetiveria on contour.

49. While a number of technological workshops have been held in the States, and the above mentioned ideas incorporated in the technical manuals, the spread of the technology has been so far decidedly slow.

50. The mission recommends that the NWDB takes up with all the states this important technological issue so that it is adopted as a routine practice.

Environmental Issues:

51. The NSFP design originally did not emphasize environmental objectives, nevertheless both positive and negative impacts may flow from it. Positive impacts include (i) substitution of NSFP trees and tree products for other resources (e.g. commercial timber and dung) and (ii) expanded tree cover which improves soil/moisture conditions. Potential, but unproven, negative impacts include insect and disease risks from using exotics and monocultures and depletion of soil moisture by using Eucalyptus species or other trees. Policy issues affect environmental consequences also. These include restrictions on felling and transporting trees and lack of clear definitions about who bears costs and receives benefits of project activities at the local level. These have discouraged people from making plantings which have recommendations made by the Midterm Review and further recommends, e.g. (i) environmental objectives be integrated into planning; (ii) microplanning activities should focus more on rural development by fostering genuine involvement of local people than on forestry per se.

Peoples' Participation:

52. The original intent of the concept of social forestry was that it was forestry activity designed to identify, encourage, and enable people's participation in the process of forest and tree production and the equitable distribution of the goods and services produced by those forests and trees. This is not just a rhetorical concern. People's participation is essential to the success of social forestry activities over the long term. Except for private

forestry activities, there remains a significant gap in some states in the participation of local people in the National Social Forestry Project.

53. The difficulties of obtaining and maintaining local participation are substantial and all successes are commendable. However, the mission recommends that additional effort be placed on ensuring people's participation in the project. This includes all components and activities (e.g., research, training, extension and planning) of the project. Research efforts, for example, should make an effort to seek out existing knowledge among villagers upon which to build new research designs to improve technologies. Training should include more emphasis on communications skills, conflict resolution, etc. that promote more local participation. Extension efforts should provide for feedback from local people not just dissemination of information to them. Another example is the lack of sufficient consultation with the people in microplanning, which is discussed below.

Joint Forestry Department/Panchayat Planning: Microplanning and Related Technical Assistance:

54. One of the major tools for ensuring greater participation of local people has not been utilized to its full potential, i.e., microplanning or variations on that theme. Foresters have developed numerous local plans for resource utilization and distribution; however, they have, in some states, rarely done so in consultation with the broad based population of the communities for which the plans have been developed. Rather, at best, they have worked with local officials who provide an important set of perspectives about the issues of utilization and distribution of forest, tree, and related natural resources but not the full range of perspectives that diverse groups reflect in the life of a normal village. The mission, therefore, recommends that all social forestry wings (SFW's) make every effort to understand, adapt, and apply the microplanning process or variations (e.g. Integrated Resource Management Plans) of it as defined by the various States.

55. As part of this process, the mission recommends a new emphasis that will focus on the use of technical assistance facilitation teams which will work in several districts with foresters to initiate a more concerted program of microplanning as well as extension to some degree. The facilitators on each team will receive appropriate orientation at the outset of their work on the microplanning process as well as on technologies, practices, local needs, and related issues. One of the two facilitators on each team will be a forester, with considerable experience in forestry, farm forestry, and silvopastoral technologies. This individual will have experience working in or with social forestry programs and will work with individuals in other disciplines and with other skills to ensure that successful microplanning process evolves. The second member of each facilitation team will be a social scientist or individual with proven experience in working on social forestry activities with local people. Both will work with foresters in

"learning while doing" mode to enhance the in-the-field competence of foresters for carrying out the intent of the microplanning process.

Research, Extension, and Training:

56. Research, extension, and training are a set of discrete yet complementary activities that contribute to the overall success of social forestry programs. To date, the research of the States has begun to make contributions to better understanding some of the technologies and practices for improved private and public social forestry activities in their many diverse forms (e.g., silvopastoral, wasteland, tree patta). The mission recommends that research programs under the National Social Forestry Project should: i) be more strategically planned and implemented; ii) conduct more applied field research; iii) be oriented to obtaining activities; and iv) be more linked to training and extension so that new information can flow more quickly to foresters and villagers. The Mission further recommends that technical assistance be provided through USAID's arrangement with the USDA Forest Service Forestry Support Program to provide assistance in research planning, design and management.

57. Extension programs, generally, seem to be ad hoc in nature. While the results of the knowledge and skills of the SFW's are beginning to filter to local people. a more systematic effort needs to be developed to ensure that his knowledge and these skills are applied in the field. The mission recommends that the States submit action plants for their extension programs that include goals, objectives, target audiences, messages, media, and methods of action to accomplish specific objectives and to have the intended impact. Theses plans should also include budget information and identification of responsible agents/agencies and timeliness for implementation. The extension plans should identify and select multiple mechanisms (e.g., agricultural T & V agents, forest extension personnel, NGOs) for extension activities. The plans should also discuss implementation plants for demonstration areas in appropriate districts as well.

58. Training continues to be an important activity during the next two years of the National Social Forestry Project. Well planned and implemented training with appropriate knowledge, skills development and attitude change objectives provide an important opportunity to ensure better performance as well as contribute to the long term sustainability of social forestry activities even after National Social Forestry project activities per se have ended. The mission recommends that existing training programs continue and that additional training activities (as identified in the various field reports) be instituted. The mission generally recommends that a training plan from each State be submitted that outlines objectives, audiences, messages, media, priorities, timeliness and budget. This will ensure that more comprehensive and systematic training activities are implemented during the course of the final years of the project.

Monitoring and Evaluation (M&E):

59. Considerable progress has been made since the Midterm Review and two specific recommendations have been carried out in full. Problems remain, however. These include the Operational Guide. Also, M&E units have no authority to demand timely data submission from other agencies which results in late reports and a needs exists sometime in the future to re-examine the sampling design for farm forestry, village woodlots, and other social forestry activities. The most serious problem is inflexible data processing which is caused by the computer program mandated by the National Wasteland Development Board. The mission recommends that:

* Computing equipment be updated by adding new units;
* Date processing flexibility be increased by purchasing up-to-date general purpose software packages; and
* In-house training and professional support be provided to all officers.

Disbursements, Budgets and Credit Extension:

60. IDA disbursements, as of August 31, 1990, for the project was SDR 79.8 M corresponding to 48% of the credit and 52% of the SAR estimate. The undisbursed IDA credit balance is SDR 86.6 M which, at the current exchange rate, is equivalent to US $ 121.2 M and Rs. 2165 M. Against PP estimated A.I.D. assistance of US $ 80 M, as of September 30, 1990, US $ 47 M or 59% of the total has been expended. The balance US $33 M is currently equivalent to Rs. 825 M. Overall, fund requirements to draw down the IDA credit and USAID assistance at the agreed disbursement level are estimated at Rs. 3290 M. Against the requirement, action plans for the states have provided for a total budgetary support of Rs. 3237 M.

61. For the Central Support Officer of the NWDB, there remains an undisbursed balance of about US $2 M which is equivalent to Rs. 36 M.

62. As of now, USAID would not support the project in the present form from January 1, 1991. But the indications are that they would launch a TA program. The amount involved in the program has not yet been finalized. Assuming that even the TA support falls short of Rs. 825 M, the action plan may have to be revised at the end of first extension.

63. The mission recommends that the credit be extended by two years and three months to make it co-terminus with IFY 1992093 in two steps; in the first step, the extension is recommended by one-year, i.e., up to December 21, 1991 and on the basis of review to be conducted at the end of the first extension, by a year and three months, i.e., up to March 31, 1993. The mission has indicated certain prerequisites for extending the credit for each state; the prerequisites, recommendations and action plans for each state are attached.

Summary of the Four States Synthesis Report

64. The combined World Bank/USAID mission identified ten critical issues in their Four State Synthesis Report made one or more recommendations for each issue. These recommendations are summarized here.

Issue/Recommendation	Synthesis Report Paragraph
Organization	
1. The NWDB take up with H.P. and Rajasthan that they establish separate lines of command for social forestry as a prerequisite to credit extension.	41
Felling & Transportation Restrictions	
2. Removal of all private land felling, transportation and product sale restrictions.	45
Nurseries and Seedling Pricing	
3. The GOI and states develop a consistent seedling pricing policy ar average cost plus profit.	46
Technology	
4. Technology be developed and transferred to improve yields and soil moisture.	50
Environmental	
5. Reaffirmation of Midterm Review recommendations.	51
6. Environmental objectives be integrated into planning.	51
7. Microplanning focus more on rural development than forestry.	51
People's Participation	
8. Additional effort be placed on ensuring participation in all components and activities of the project.	53
Joint Forestry Department/Panchayat Planning	
9. All social forestry wings make every effort to understand, adapt and apply microplanning.	54
10. Two person facilitation teams, a forester and a	55

social scientist, to provide technical assistance in micro-planning.

Research, Extension, & Training

56

11. Research programs be more strategically planned and implemented, contain more applied field research, be oriented to obtain local people's input, and be more linked to training and extension.

57

12. States submit action plans for their extension programs including objectives, audiences, etc.

58

13. Existing training programs should continue and be expanded to include already identified new needs.

58

14. State submit training plans including objectives, audiences, messages, etc.

Monitoring & Evaluation

59

15. Hardware be updated and increased, flexible, general purpose software be purchased, and in-house training be provided.

Disbursements, Budgets, & Credit Extension

63

16. Credit be extended by two years and three months to make them co-terminus with IFY 1992-93 in two steps.

CHAPTER 3 : AIDE MEMOIRES:

STATEWISE FINDINGS AND RECOMMENDATIONS

GUJARAT SUBPROJECT

This chapter presents the main findings and recommendations for 4 states and central support office separately.

1. A joint World Bank/USAID mission comprising Messrs. P. Guhathakurta, R. Ng and V.P.S. Verma of the World Bank and Mr. W. Leuschner, Consultant of the USAID visited Gujarat from October 4 to 8, 1990. In addition to reviewing the implementation progress, the mission considered the GOI/GOG request for a two-year extension of the Closing Date up to December 31, 1992. The mission visited Surat, Vadodara and Bharuch districts and discussed with the GOG, project officials, panchayat members and villagers various aspects of project activities. The mission held a wrap-up meeting with the Forest Secretary, Principal Chief Conservator of Forests and other senior officials at Ahmedabad on October 8. The aide memoire reflects the mission's views only and are subject to agreement by the Bank and USAID's higher management.

Summary of Progress

2. Uptil now, 650994 ha of plantations which is 155% of the SAR/PP estimate have been established. The general standard of plantations is satisfactory with survival estimated at over 60%. The planting activities negatively affected by the three-year drought from the start-up of the project has been largely overcome. Achievements in construction of buildings, and staff mobility are lower than the SAR/PP estimates at 39% each. Similarly, training programs, with the exception of farm forestry has remained between 35% and 77% of the given targets. The fuel saving devices component shows the lowest level of progress (23%).

3. Significant developments include: (a) adoption of microplanning approach in promoting the planting, and its visible impact and accountability; (b) state government withdrawal of existing tree felling restrictions introduced mid-way in the project over all types of social forestry plantations, and issuance of distribution guidelines in respect of products from woodlots on revenue lands; (c) expansion of wood production base to include a large number of species in the later part; (d) incremental rural employment; (e) establishment of more plantations over degraded and wastelands to address large interests of the community and reduce land degradations. The problems include: (a) free supply and introduction of seedling prices; (b) inadequate support of the institutions at the village and (c) necessity of faster introduction of need and site-specific technologies to meet soil and moisture conservation requirements to improve vegetative growth.

PHYSICAL IMPLEMENTATION

4. Budget. Against the SAR/PP estimate of Rs.1296.36 million an amount of Rs.802.80 million has been expended till August 1990 which is 61% the estimate. The tentative estimate for three years (FY 1990-93) of Rs.968.30 million is likely to be raised by the GOR. Overall budget is likely to draw down the available balance IDA Credit, in the event of extension upto March 31, 1991 is agreed to by the Bank. The budgetary constraints faced by the GOG in the first three years of the project due to severe drought in the state have been significantly removed with higher budgetary allocations from the FY 1988-89.

5. Microplanning. Based on the pilot experimentation with the village level participatory planning two years back in Surat district, consistent with the Bank-documented NWDB guideline on the principles of microplanning for need-and site-specific technological development, the project officials have carried out similar exercises over 680 villages all over the state. The mission was impressed with the output. The new approach has created an environment to bring village communities closer to the social forestry staff and opened up the vital opportunity of sustainability. Despite the commendable efforts and the opportunity offered by the microplanning scheme, serious questions remain of cooperation of village communities to assume protection and management responsibility of the generated assets in the villages. The mission felt that microplans should include the complete management plan from planting through intermediate benefit flow to harvest and regeneration. The project officials should, therefore, evaluate the scheme, train its staff at all levels to remove the deficiencies, and continue with efforts to graduate the communities in a short period for seedling production and distribution, protection of the assets created and transfer the skills of management of plantations using appropriate silvicultural options for distribution of products. As the program is significantly different from past strategy and is complex in nature, it will be more prudent to concentrate the efforts in Surat, Bharuch and Panchmahal districts of the state to make the efforts visible and accountable, which can be replicated later over wider areas. Due to area focus, the measure will be well worth in terms of impact. To carry out this task, GOG/CFW may consider to engage two local consultants - a forester and a sociologist as facilitators to assist both the CFW officials and villagers in the next two years.

6. Policy Issues on Sustainability. The current social forestry policy of the state does not emphasise the objective or a program that should be self-sustaining within a given period of time. The situation is also reflected in the nature of progress of development and implemehtation so far. However, the MTR, subsequent missions and the current mission have stressed the need for such a policy to sustain the scheme in the future and to reduce the burden on the state resources. The mission reiterates that government adopts a positive policy in this regard and instruct the project officials as well to formulate appropriate programs. The following aspects contribute to sustainence:

(a) Seedling Pricing. The project legal agreement required a gradual reduction of amount of seedling distributed free of charge to obtain (i) cost recovery, and (ii) encourage private entrepreneurship in seedling production. However, the objective has been attained in a limited way. In a gradual reduction of free supply of seedlings, the covenant prescribed only 200 free seedlings per client and a pricing of 20p/seedling beyond the free limit in 1989 against the present free limit of 400 and the price of 10p. A recent USAID initiated study has indicated that the initial resistance of the beneficiaries to pay for the seedlings has diminished substantially to warrant pricing with immediate effect. While the recommendations of the study will govern formulation of a new policy by the state that may lead to discontinuing subsidy in seedling sale, the GOG should comply with immediate effect the covenant to continue free supply to 200 seedlings per client and price of 20 p per seedling of supply exceeding 200 seedlings.

(b) Village Forest Committees (VFC). In line with what has been elaborated under para 5 and the state policy to involve the community in management of state forests, the GOG should issue orders for establishment of village forest committees for all the districts where comprehensive and intensive

microplanning scheme would be resorted to. The mission believes that without the assistance of VFCs, forests cannot be protected and managed in the long term.

(c) Benefits from Strips and Degraded Forest Areas. The GOG has adopted two separate formulae for distribution of benefits; (i) for village woodlots that include consultation with panchayats and recycling of part of the receipts for revegetation after final harvest and (ii) for strip plantations which is too cumbersome and lacking in necessary incentives for villagers to protect the strips. GOG may consider to treat strips as well as village woodlots as one subjected to the same benefit-sharing system. The present system in RDF has also the drawback of involving forestry staff in perpetuity for protection, management, harvesting and regeneration. This is not consistent with the concept of social forestry. Involvement of the people in management and decisions on benefit sharing would be their incentive to sustain the production from plantations and forests. It is recommended that GOK should issue an order on benefit sharing in respect of RDF.

(d) Removal of 4 ha woodlot limit. A related issue concerns the removal of the 4 ha woodlots limit on availability of communal lands in a village to enable the project officials to pursue a 'saturation' approach for microplanning and woodlot development in a village. The restriction is a disincertive to people and the panchayats to create village woodlots and sustain them.

7. Monitoring and Evaluation. Considerable progress in M&E has been made since the MTR of February 1988. Of the four specific recommendations of the MTR, the first two regarding organisational structure and data collection seem to have been carried out in full. However, more effort is needed on training in computerized data processing and analysis before the data collected on monitoring of project performance can become meaningful as decision inputs for the management of the project.

8. While there are a number of issues that have to be addressed before the goal of a management oriented monitoring and evaluation system can be achieved, given the present condition of M&E Unit in the state, the best option is to first build up strength of the units before tackling the more complicated problems of improving the sampling design.

9. In improving the capabilities of the M&E Unit, the state should (i) upgrade the computing equipment by adding two units of ATs (286 or 386); (ii) purchase modern software packages for handling the survey data viz Dbase 3 +, Lotus 2.2, Harvard Graphics, Microsoft Project 4.0 and Word Processing package; and (iii) provide in-house training of approximately 100 hours for officers in the social forestry works needing access to M&E data. A TOR for a consultancy on training has been prepared and attached to the Technical Annex to assist the state government to identify a suitable consultant.

10. Studies. With the USAID grants, the GOG/CFW has concluded two important studies on marketing opportunities for social forestry produce and seedling pricing. USAID has also completed a multi-state common property resource management study including Gujarat. CFW has also published the Technical Manual on various plantation models and other aspects of plantation technology. GOG should review the recommendations of the first two studies.

CREDIT MANAGEMENT

11. Disbursements IDA disbursements, as of September 30, 1990 for the four states and the CSO/NWDB under the project were SDR 87.5 M corresponding to 52% of the Credit and 55% of the SAR estimate. The undisbursed IDA Credit balance is SDR 78.9 M which at the current exchange rate is equivalent to US$ 110.5 M. Against PP estimated AID assistance of US$ 80 M, as of September 30, 1990, US$ 47.0 M has been disbursed.

12. Credit Closing Date Extension Prerequisites. In light of general satisfactory progress in the project, the mission would like to recommend to the World Bank's higher management the requested extension for two years beyond December 31, 1990. However, in accordance with the Bank's policy it approves one-year extension at a time. The mission would, however, would like to seek from the GOG the following assurances as prerequisites for recommending extension:

(i) a budgetary support of Rs.268.3 M, Rs.340.0 M and Rs.360.0 M for 1990-91, 1991-92 and 1992-93 (upto December 31, 1992) respectively (para 4); and

(ii) compliance with covenant relating to seedling pricing, dealt with under para 6 (a).

13. Accounts and Audit. The financial covenants have been satisfactorily complied with upto 1989-90.

14. Covenants. The status of IDA covenants has been given in Annex. Apart from seedling pricing (para 6a), two other covenants are under partial compliance:

- GUJ. 2.03 M&E. The annual reports, for which the basic data have been collected, overdue since 1987-88.

- GUJ. 3.01C SDR equivalent of Rupees. The issue has been dealt with under para 12.

15. The USAID covenants have been complied with.

16. Procurement. The civil works, and vehicles and furniture procurement are done in the project through LCBs and are in uniformity with SAR provisions.

TECHNICAL DISCUSSION

17. Future Collaboration with USAID. USAID is planning to provide short-term TA by establishing a continuing interactive relationship between the US Forest Service's Support Program and the Central/State Forest Departments in India, to implement the strategy recommended in the MTR to help attain the envisioned project objective of private and public sector capacity development of critical and outstanding project issues outlined in the SAR/PP. The issues include training, studies, research, consultancies, technology and M&E.

18. Management Plan for Plantations. Though these are several well-managed farm forestry plantations established by individual farmers, there are also one lakh hectares of rainfed and 5000 ha of irrigated plantations that do not conform to expected silvicultural

standards of management. This is due to a lack of objective oriented management and possibly, due to lack of decision on the mode of utilisation. The mission, therefore, recommends that a three pronged strategy should be adopted to address the situation:

(a) GOG should amend the guidelines on benefit arrangements on strips and issue a new guideline for the degraded forest land plantations (para 6 c);

(b) CFW should carry out a quick survey on the status of growing stock of all rainfed plantations of 8 years and above and of irrigated plantations 2 years and above to prioritize the needs for silvicultural treatments and frame a plan of operations for 1991 and 1992, by December 31, 1990, and

(c) use all acceptable silvicultural options of pruning, multiple-shoot cutting, lopping, thinning, coppicing etc. and transfer the skills of options to the beneficiary villagers to ensure a regular flow of benefits under the overall guidance of the CFW.

19. Pilot in-situ vegetative conservation technology Though the mission did not have time to visit, the project officials mentioned that they have established two pilot areas in the state using grasses and legumes in a contour vegetation along with trees to test the efficiency of in-situ conservation of soil and moisture through multi-canopy plantation techniques. It was agreed that the measures would be expanded to cover at least 10% of the degraded forest area treatment in 1991 and 15% in 1992.

20. Decentralised Nursery. Since 1986-87 the state is running a program of Decentralised Peoples Nursery (DPN) of the NWDB. The scheme recognized that sustainable production of tree products is inter alia dependent upon privatising decentralised production. The National Land Use and Wastelands Development Council had decided that by 1987-88 seedling production under DPN should be 50% of the total seedling production in the state. However, starting with 60% in 1986-87, the percentage production of seedlings under the DPN has dropped to 34% in 1989-90. The nursery operations, who are free to dispose of the forest seedlings produced by them, find it difficult to do so as the CFW supplies up to 400 seedlings to the farmers free of cost.

21. It is recommended that;

- CFW stops distribution of seedlings in the area where DPNs have been established and if at all necessary arrange supply from departmental nurseries established elsewhere; and

- CFW issues a set of quality control guidelines for various species for the DPN nursery operators.

22. Research. Through departmental efforts, nine small research projects related to fodder growth, spacing in a hybrid Eucalyptus crop, new species introduction of Eucalyptus, use of different hedges for live fencing and growth regulators to induce rooting have been concluded. There is, however, no evidence of their application on a wider scale in the field. Some on-going experiments by the department to be concluded soon include primarily fertilization in various species under rainfed and irrigated conditions.

23. The mission recommends that further research should focus on the following:

(i) On-going mensurational works on growth and yield of five species as individuals and crops; and keeping a reliable record of outputs from plantations to be silviculturally treated in 1991 and 1992 (para 18);

(ii) Laying out seed production areas of some important species viz. hybrid Eucalyptus, Acacia nilotica, Dalbergia sissoo, Prosopis juliflora, P. spicigera, Leucaena leucocephala, and Melia azadirachta, and testing provenances in varied agro-climatic zones; and

(iii) Identifying superior phenotypes of the above species, and testing progeny and provenances in research and fields;

(iv) Extending research findings in the field; and

(v) Requesting a USAID technical review team to thoroughly review the overall research program and recommend the programs direction for the next 5-10 years;

24. The mission would, however, like to stress that all research tasks should be designed statistically for their eventual acceptance. For this, CFW should consult a competent biometrician to have a fresh look at all the research tasks, now on-going and in future.

25. Prerequisites and Recommendations for extension of the Closing Date. The prerequisites and recommendations up to March 31, 1993 and a related financial and physical plan are given at the end. The plan is prepared with a view to enlarge the project scope to stress the current strategy of intensification of participation of the village community at large, address serious land degradation problems in the forest and waste lands, and tackle crucial sustainability aspects of the scheme. The mission would recommend to the Bank's higher management extension of the Credit Closing Date through two steps: first, for one year upto December 31, 1991, and the second, after a review at the end of the first year up to March 31, 1993 making it co-terminus with the 1FY. GOG is needed to communicate its favourable agreement on the prerequisites, recommendations and the plan by November 30, 1990 to process the formalities for extension of the Credit Closing Date with the Bank's higher management.

INDIA

National Social Forestry Project (Credit 1611-IN)
Gujarat Sub-project

Prerequisities for Credit Extension and Mission Recommendations

	Issues	Aide Memoire Paragraph	Action By
	Prerequisites for Credit Extension		
1.	Provide the needed state budgetary support to draw down the balance Credit	4 and 12	GOG
2.	Comply with the covenant on reduction of number of free supply and pricing of seedlings	6 (b) and 12	GOG
	Recommendations		
3.	Review the recommendations of the studies on marketing and seedling pricing policy	10	GOG
4.	Establish Village Forest Committees	6 (b)	GOG/CFW
5.	Issue GOs to amend benefit-sharing from the strips and introduce order on benefit from from the degraded forest area plantations	6 (c)	GOG
6.	Train staff on computer for M&E and use of microplanning procedures	5 and 8	CFW
7.	Concentrate and intensify microplanning in three districts using facilitators	5	CFW
8.	Remove the existing 4 ha limit for woodlots on community lands	6 (d)	GOG
9.	Develop management plans for the plantations for the next two years	17	
10.	Provide USAID TA in identified areas	16	USAID/GOI/GOG
11.	Expand vegetative moisture and soil conservation technology	19	CFW
12.	Concentrate on identified research tasks, and evaluate and design the new tasks in consultation with a bio-metrician	22 and 24	GOG/CFW

RAJASTHAN SUB PROJECT

1. A World Bank and USAID joint mission, comprising Messrs. P. Guhathakurta, Ronald Ng, V.P.S. Verma (World Bank) and William Leuschner (USAID) carried out a review of the project between October 9 and 13, 1990. The mission inspected the field operations in Alwar and Jaipur districts, and had discussions and meetings with the project staff, Panchayat members and villagers, and the Secretary, Principal Chief Conservator of Forests and Director, Social Forestry and officials of the GOR.

2. The Aide Memoire summarises the mission's findings, and prerequisites, recommendations and a financial and physical action plan for a GOI/GOR requested a two-year extension of the project beyond the Current Closing Date on December 31, 1990. The Aide Memoire reflects the mission's views only and are subject to formal confirmation of the higher management of the Bank and USAID.

3. General Progress. Uptil now, the community woodlots (11065 ha) and the Government wastelands plantations (26316 ha) have exceeded the targets set in SAR/PP by 71% and 3% respectively. The schemes on tree/tenure (720 ha) and agro-forestry (75.40 million seedlings) are falling short of SAR/PP estimates by 52% and 72% respectively. The standard of plantations is varied but has shown distinct improvement in survival (above 60%) in the later half of the project. There is increasing evidence of more and better collaboration between the SFW and the Agriculture Department's T&V system for spread of agro-forestry. Recent organisational arrangements have brought unified control of the Social Forestry Director in some areas of the state. GOR order on pricing of seedlings has been made effective from July 1, 1990. The budgetary support has improved since 1989-90 and is likely to be sustained in the coming two years. Microplanning exercises have been tested in few sites; progress is also visible in research within the Department and outside. Compliance with covenants is generally satisfactory.

4. Further actions needed are: (a) more organizational adjustments in the Forest Department to strengthen unified control under SFW; (b) removal of restrictions on fellings and transportation of wood by GOR for commonly grown agro-forestry species; (c) completion of the study on the problems of implementing tree tenure component; (d) augmenting ber cultivation under agro-forestry by SFW and (e) removal of provision of tax on wood under the Rajasthan Land Act, 1985 by GOR.

PHYSICAL IMPLEMENTATION

5. Budget. The project budget has been raised by 63% to Rs.158.0 million in 1990-91 from Rs.976 million in the previous year. The estimated budgets for 1991-92 and 1992-93 (upto 12/92) are Rs.163.5 million and Rs.120.0 million respectively. The estimated budgetary support if maintained is likely to draw down the Credit within the requested two-year extension period. The financial and physical plan has been prepared accordingly.

6. Organisation and Staffing: The mission reiterated its concern about want of unified control of the Director, Social Forestry in several districts where social forestry is the principal activity. It

recommends that the SFW should be strengthened by inducting four more existing non- SF Divisions, viz. Sawai Madhopur, Bhiwani, Udaipur (North) and Alwar which are principally engaged in SF activities using the project funds, under the unified control of the Social Forestry Director with immediate effect. So far, only 18 of the 28 Divisions targeted in the SAR has been established. On the request of the project and GOR officials, the mission agreed to upgrade a post of DFO to the level of the Conservator of Forests as a part of overall reorganisation to oversee the above four Divisions in the project. The mission considered the proposed adjustment as an indispensable commitment of the GOR for effective implementation of the project activities in ten districts of the state in the coming years.

7. Trends in Plantations for Revegetating Degraded Areas. One of the features of plantings in the last three years has been substantial thrust in revegetating erodible state forest lands to address the serious problem of land degradation and meet the larger interests of the community who are dependent on the forest products. The plantations are generally well established and maintained. Aided by favourable monsoons of last two years, some plantations Acacias of some 2500 stems per hectare are showing signs of congestion on the fourth and fifth years because of good crown development.

8. However, selection of sites was not based on community existence or on identified needs. There are also no assurances that products (except grasses on 'cut and carry' basis) would be made available to local communities. The current practice does not conform to the objectives of the project. GOR/SFW may consider to take measures to identify sites with reference to future beneficiaries and remove current restrictions to allow utilization of products from plantations on state forest lands in favour of intended beneficiaries.

9. Linkage with Agriculture's T&V System. SFW has embarked upon a systematic extension program to promote spread of trees on private farm lands though Agriculture Department's T&V system in twenty one districts of the state. The State Agriculture Extension Service invites the designated Forestry Subject Matter Officer to their fortnightly meetings and many SF officials at the junior levels are using extension training facilities of the Agriculture Department and the state-run institutes in Rajasthan, Haryana and Gujarat.

10. However, some of the concerns regarding low survival rates (estimated at about 30%) in farm land plantings, indifferent quality of planting stocks, long time-lag between nursery off-take and field planting, imperfect transport arrangements, long distances of planting areas from nurseries and inadequate technical and promotional messages to the farmers still persist.

11. Therefore, it is necessary for the SFW to remove these concerns for the 1991 plantings and firm up arrangements for a joint-forestry agriculture extension approach in consultation with the Agriculture Department for the 1991 agro-forestry program by December 1990. The mission further recommends that the joint extension approach should be confined to three districts, to be mutually agreed between the SFW and the Agriculture Development, to gain valuable experience for further spread of the program in the future years.

12. Studies. USAID has contracted a study on marketing of SF products. It is expected to completed by December 30, 1990.

13. NWDB/CSO has assigned three studies to the Agricultural Finance Consultants, Delhi who are the designated regional monitoring unit of the NWDB/CSO under the project, on (a) the status of development of social forestry and wastelands development in Rajasthan and Uttar Pradesh; (b) the effect of agro-forestry on agricultural crop production; and (c) the role of voluntary agencies.

The first two studies are likely to be completed by December 1990. The mission had also opportunity to meet a three-member team of the Agricultural Finance Consultants in a day-long field inspection and discussion.

14. The following studies assigned to the SFW are in arrears: (a) seedling pricing and (b) household tenure arrangements. SFW needs to complete them by March 1991.

15. Sustainability related Policy Issues. Several policy questions on sustainability of the project, recommended in the MTR and followed up in subsequent missions now need to be addressed in a time frame by the GOR. Assurances to that effect will be sought from the GOR before recommending an extension of the Credit Closing Date to the Bank's higher management.

(a) Village Forest Committees for Decentralizing Management. Sustainability of the program depends largely on involving the communities in participatory protection and management responsibilities and in making the program an activity handled by the beneficiaries. Current involvement of the Government should be considered promotional and advisory (especially on technical aspects) arriving at making all the activities an integral part of farmers/communities initiative. Microplanning, already introduced experimentally, will be an excellent opportunity to introduce steps for decentralization through participatory planning. The Mission strongly recommends that GOR should issue orders for establishment of Village Forest Committees (VFC) for joint SFW-village planning, execution, resource protection and management, seedling production etc, as the mission believes that without the assistance of VFCs forests and plantations cannot be protected in the long run.

(b) Benefit sharing. The GOR letter by April 22, 1985 to the GOI stated that the guidelines for the management of community forests have been approved by the Government and that an agreement between the panchayats and Forest Department would be drafted. However, there has been inadequate follow-up of the state policy, though the MTR and subsequent missions have urged upon the GOR to issue guidelines for benefit-sharing from all plantings on community land and state forest lands. The mission would expect GOR to act on this aspect expeditiously, as it feels the involvement of people in benefit-sharing would be the incentive to sustain the production from the community and state forest lands.

(c) Removal of restrictions on felling and transportation. GOR may take early decision exempting Acacia nilotica and Dalbergia sissoo from the purview of the Rajasthan Tenancy Act and Rajasthan Forest Produce Transit Rules that call for obtaining prior permission for felling from the revenue authorities and for transportation from the Forest Department. GOR may also act on the request of the April 1990 mission to amend the GO of July 15, 1986 exempting the non-mechanized transportation of wood from the Forest Produce Transit Rules, so to make applicable over the entire districts of Jaipur, Alwar, Bharatpur, Jhinjhunu, Sikar, Nagaur, Jalore and Tonk, and also include other districts where SF program is being implemented to promote spread of private sector plantings in the state. The mission feels that without these measures the farmers interest to plant trees will not be sustained.

(d) Exemption of Tax on Wood. GOR orders on modification of Rajasthan Land Tax Act, 1985, exempting income derived from farm-grown trees are yet to be issued. The mission was assured again of a possible early decision as the Forest Department is in favour of such exemption. The mission felt that as the income from agriculture

is not taxed, any tax on income from farm-grown trees will act as discrientive to the private growers.

16. Training. The mission reiterates it earlier recommendations on continuation and introduction of training in the following areas and programming its implementation though the state-run training institutes:

(a) EDP and Appreciation Courses for senior forestry and non-forestry personnel;

(b) Training camps for farmers, milk cooperative representatives, rural women and public representatives;

(c) Study tours for individual beneficiaries;

(d) Orientation courses for junior-level forestry personnel;

(e) Training for trainers;

(f) Eco-development camps for primary and secondary school children;

(g) Microplanning procedures for staff at all levels in three districts (para 22)

CREDIT PERFORMANCE

17. Disbursements IDA disbursement as of September 31, 1990 for all the four states and the NWDB/CSO under the project was SDR 87.5 M corresponding to 52% of the Credit and 55% of the SAR estimate. The undisbursed balance is SDR 78.9 M which at the current exchange rate is equivalent to US $ 110.5 M. USAID disbursement as of September 30, 1990 is US $ 47.0 M.

18. Accounts and Audit The financial covenants have been complied with by the GOR upto 1988-89.

19. Procurement The SAR targets have been largely met in respect of cars, jeeps and vans. The procurement of tractors is well below the SAR target and these has not been any procurement of cycles and motor cycles for the junior level staff. The next two years may step up procurement of motor cycles.

20. Civil Works The overall progress is well below the SAR target. With the increased budgetary support in the coming years, the civil works may be stepped up.

21. Compliance with Covenants The following IDA covenants are under partial compliance:

(a) RAJ. 10 AGR MIN. VEHICLES etc. This has been dealt under in para 19.

(b) RAJ. SH 2.03 M&E. The Hindi version is yet to be translated to English for the Bank and USAID's use.

(c) RAJ. SH.2.10. ORGANISATION. The issue has been dealt with under para 6.

22. With the completion of marketing studies (paras 11), only USAID covenant which will stand non-complied is the GOR/SFW study on seedling pricing.

PLANNING, MANAGEMENT AND TECHNOLOGY

23. Microplanning and Innovative Technology. SFW now needs to expand microplanning exercises which have been tested in about a dozen places so far. It is also drafting a technology manual for standardization of field operations incorporating specifications for site preparations and choice of species in various planting models. The technology will also include in-situ soil and moisture conservation measures through vegetative means using contour trenches/V-ditches and establishment of multi-tier canopy plantations for long-term improvement of site productivity. The mission considered the aspect in consultation with the SFW officials and it was decided that in the next two years microplanning exercises using the Bank-documented and NWDB-published guidelines will be carried in two identified districts of Jaipur and Udaipur for gaining more experience, refinement and intensification in future. GOR/SFW may also consider to appoint two facilitators - a sociologist and a forester to assist and maintain continuity of events in the microplanning exercises.

24. Choice of Species in Strip Plantations. Due to high cost of roadside plantations (with barbed wire fencings), the MTR mission recommended continuation of strip plantation at a smaller scale of 200 ha/year with an objective of identifying hardy species and low-cost methods of establishment. As such plantations can be established with direct sowing of Prosopis juliflora seeds without fencing, the mission recommends use of this species in rail and roadside plantations in future.

25. Decentralised Nurseries The Decentralised Peoples Nurseries (DPN), sponsored by the NWDB was started in the state in 1986-87. The total seedling production under the decentralised nursery scheme of the NSFP has increased from 9.4% to 17.9% between 1986-87 and 1989-90. The NWDB funds under decentralised nurseries stood at Rs.5.50 M against the NSFP's Rs.1.68 M. Nursery operators receive Rs.0.30 per seedling from the SFW (Rs.0.45 per seedling for the NWDB) and are generally complacent as they are assured of buy-back arrangement by the SFW and they are not required to find market for open sale.

26. The mission felt that there is good market for seedlings and the nursery operators should be encouraged to contact the prospective planters viz various institutions one year in advance plan the cultivation of seedlings accordingly and sell them to the prospective planters. In the present circumstance, the operators are solely depending on the SFW and most of them are unlikely to continue after withdrawal of the SFW support.

27. SFW should also establish standards for seedlings of various species and ensure their quality control.

28. Management of Plantations. In anticipation that GOR will issue guidelines for benefit distribution (para 14b) soon, the SFW needs to carry out a quick survey of all plantations of 4 years and above on public lands to frame out a plan of operations for 1991 and 1992 spread over state to ensure benefit distribution. The mission has received an assurance from the SFW officials that they will prepare the program by January 31, 1991.

29. Monitoring & Evaluation. Considerable progress has been made in M&E since the MTR of February 1988. Of the four specific recommendations of the MTR, the first two regarding organizations and data collection seem to have been carried out in full. However, more effort is needed on training in computerised data processing and analysis before the data collected on monitoring of project performance can become meaningful decision inputs for the management of

the project.

30. While there are number of issues that have to be addressed before the goal of a management-oriented M&E system can be achieved, given the present condition of M&E Unit in the state, the first option is to first build up strength of the units before tackling the more complicated problems of improving the sampling design.

31. In improving the capabilities of the M&E Unit, the state should: (a) upgrade the computing equipment by adding two units (286 or 386); (b) purchase modern software packages for handling the survey data viz D.Base 3+, Lotus 2.2, Harvard Graphics, Microsoft Impact 40 and word processing package (with Hindi capability); and (c) provide in-house training of approximately 100 hours for all offices in the social forestry works needing access to M&E data. A TOR for a consultant on training has been prepared and given in the Technical Annex to assist the state to identify a consultant.

32. Research. The mission reiterates the recommendations of the April 1990 mission. It further recommends that SFW should seek assistance of biometrician for designing the research experiments and request the USAID to send a team to work into long-term research tasks for the state.

33. Prerequisites and Recommendations for extension of the Closing Date The prerequisites and recommendations for a possible extension of the Credit Closing Date upto March 31, 1993 and a related financial & physical action plan that will largely enlarge the project scope to stress the current strategy of intensification of participation of the village community, address environmental degradation problems on public lands and tackle crucial sustainability aspects of the scheme are attached. The mission recommends that the Credit Closing Date be extended by two years and three months to make it co-terminus with FY 1992-93 in two stages: in the first, for one year upto December 31, 1991 and another on the basis of a review to be conducted at the end of the first extension, by a year and three months i.e upto March 31, 1993. GOR is needed to communicate its favourable agreement on the prerequesites, recommendations, and the action plan by November 30, 1990 to process the formalities for an extension of the Credit Closing Date with the Bank's higher management.

INDIA

NATIONAL SOCIAL FORESTRY PROJECT (Credit 1611-IN)

Rajasthan Subproject

Prerequisites for Credit Extension and Mission Recommendations

Issues	Aide Memoire Paragraph	Action by
Prerequisites		
1. Provide the needed state budgetary support to draw down the balance credit	5	GOR
2. Create four more SF Divisions by adjustment and one post of conservator	6	GOR
Recommendations		
3. Expand agro-forestry though the Agriculture Department's extension in three identified districts	9 and 10	GOR/SFW
4. Complete overdue studies on seedling pricing and household tenure	14	GOR/SFW
5. Issue GO for formation of village forest committees	15a	GOR
6. Issue guidelines for benefit distribution from all pubic land plantations	15b	GOR
7. Remove restrictions on felling and transportation on Acacia nilotica and Dalbergia sissoo, and amend transportation restrictions in other districts	15c	GOR
8. Exempt tax on wood	15d	GOR
9. Arrange a training program through state-wise institutes	16	SFW
10. Arrange procurement of cycles and motor cycles for the junior-level staff	19	GOR

11.	Identify three districts for microplanning innovative need and site specific technology and use the services of facilitators for microplanning	23	SFW
12.	Confine strip plantations on roads and railsides with Prosopis juliflora	24	SFW
13.	Encourage open sale of seedlings through decentralised nurseries and ensure quality control	25 to 27	SFW
14.	Prepare management plans for silvicultural treatment of plantations for 1991 and 1992	28	SFW
15.	Train staff on computers for M&E	29	GOR/SFW
16.	Follow recommendations of the April mission on research	32	SFW

UTTAR PRADESH SUBPROJECT

INTRODUCTION

1. A team consisting of Messrs A.K. Banerjee and Arnaldo Contreras of the World Bank and Ms. J. Kathy Parker of USAID supervised the UP subproject of the National Social Forestry Project from October 4 to 8, 1990. Besides field trips, the mission met villagers, NGOs and government officials implementing the project. The mission was accompanied by officials of the Social Forestry Wing (SFW) led by Mr. Mathur, Chief Conservator of Forests, Social Forestry. The following report is subject to confirmation by the World Bank and USAID.

GENERAL PROGRESS SINCE LAST (MARCH 19-23) MISSION

2. a) As with previous missions, we found that progress had been made on a number of fronts:

   i) successful meeting of targets for most of categories of land (e.g., farm forestry, rehabilitation of degraded forests (RDF)), except for tree tenure for the poor and landless;

   ii) Government of Uttar Pradesh (GOUP) has exempted more species from felling restrictions;

   iii) SFW has proposed that all transit rules be abolished except for the 11 species that are still under felling restrictions;

   iv) SFW expressed that it had adequate equipment and training programs;

   v) some research is beginning to produce some useful results that now should be analyzed, synthesized, reported and disseminated;

b) The mission, however, identified some problems:

i) there remains generally poor implementation of microplanning (except perhaps in the farm forestry component);

ii) this is reflected in the generally low levels of participation by local people;

iii) the quality of performance of SFW along these lines has been hampered somewhat because they have been using trees as ends rather than as means to working with rural communities and encouraging local participation in natural resources management;

iv) technology needs further improvement in nurseries and plantations;

v) research, extension, and training need to be more systematically planned and implemented as well as better linked to ensure the improved flow of new knowledge from research to the foresters and to the farmers as well as the flow of more information about local needs and opportunities to researchers from farmers and foresters; and

vi) monitoring and evaluation seems to be most focused on how well targets have been met and funds expended rather than on the level of potential impact from project activities and the trends toward economic, social, environmental, institutional and technological sustainability.

PROJECT IMPLEMENTATION

3. Budget: By March 1990, the project has spent Rs 1422 million out of a total project estimate of Rs 1611 million. Likely expenditure by end of December 1990, which is the completion date for the project is Rs 350 million. Thus, the project would have spent Rs 1772 million by its present completion date. GOUP has requested extension of the project for two years to be completed in December 1993. The anticipated budget by SFW for the extended period is Rs 600 million for 1991-92 and Rs 500 million for 1992-93 assuming that the completion date will be extended to March 1993 to make it co-terminus with the financial year.

CREDIT MANAGEMENT

4. Disbursements: IDA disbursements, as of September 30, 1990, for the 4 states and the CSO/NWDB were SDR 87.5 M which is 52% of the credit and 55% of the SAR estimate. The undisbursed balance is SDR 78.9 M which is equivalent, at the current level of exchange, to U.S. $ 110.5 M. Total USAID disbursement, as on September 30, 1990, is U.S. $ 47 M out of total of US $ 67.6 million.

5. Accounts and Audit: SFW has already submitted the audit and SOE certificates for 1988-89. These for 1989-90 are due in December, 1990.

6. Compliance with covenants: All the covenants have been satisfactorily complied with.

TECHNICAL DISCUSSIONS

7. Technology: The Mid Term Review mission and subsequent missions have recommended changes in the technology for bettering the growth of plants. It is understood that some of the proposed changes have been initiated particularly in the Bundelkhand areas. The mission did not have a chance to see them. We however reiterate and recommend the necessity of quickly introducing all over the state following changes in plantation technology. They are (i) V-ditch or contour trenches in soil manipulation component; (ii) contour planting of shrubs or Vetiver in the planting component; and (iii) improvement of the seedling stock in the nursery component; (iv) management ihcorporating practices that produce quick benefits in a sustained manner.

8. Private Planting: Under this topic we will discuss farm forestry, tree tenure and nursery.

9. Farm Forestry: About 30 million seedlings are being planted under the project every year by the farmers on their private land. It is estimated that the seedling demand would continue to be of that order in the next two years. The demand could further increase if disincentives such as restrictions on private tree felling and timber transporting (as discussed later) are withdrawn and profitability of the final product is assured.

10. Some of the earlier plantings have produced crops which could have been of larger volume and trees of better shape. These deficiencies would not have occurred had the seedlings provided to the growers were of superior quality and the farmers received adcquate technical extension information during and after planting.

11. Farm forestry in Uttar Pradesh is basically a tree crop cultivation practice comparable to fruit and other cash crop cultivation. Its acceptability and continuing popularity is a function of profitability vis-a-vis other cash crops. It is therefore of utmost importance that farmers have access to superior seedling stock, to adequate technical advice for growing seedlings complete freedom to dispose of the product the way they want, and to marketing information.

12. Finding that the primary timber producers, namely farmers are being deprived of their legitimate timber value by business intermediaries and anticipating that the market price of farm forestry timber would tumble due to its increasing arrival in the market, the UP Forest Development Corporation is purchasing farm timber with a respectable support price. For the time being this intervention would provide market assurance to the farmers. It is now necessary to assure them also of improved seedling stock, adequate technology transfer and freedom of disposal of products of their own land.

13. The mission recommends:

(i) Standardization of quality of seeds for nursery: This should be done by selecting good quality tree stands of the required species, eliminating inferior trees from the stand and restricting seed collection from the residual trees. This work should be given the utmost priority it deserves and should be undertaken as a special job to be completed before the next seed collection period begins.

(ii) Improved technology and arrangement for its transfer in a more organized manner: Actions proposed to implement this recommendation may be forwarded to the Bank and USAID for comments.

More important components of technology for farm planting are species selection, and management as well as soil and moisture conservation (only in block planted areas). It is understood that the SFW has prepared pamphlets in local language describing known techniques for raising and managing farm tree species. These should be circulated through T&V extension agents. In addition, Forest Guards, Foresters and other officials of the Forest Department should periodically accompany the T&V agents when the latter visit the contact farmers. Research scientists working in the laboratory should also be associated with the visit when necessary.

(iii) Arrange for issuing orders to exempt all tree species raised in farm forestry from felling restriction (e.g. mango is now restricted, the case of sissoo is unclear), to cancel the present restrictions for felling over 2 hectares of farm forests and to withdraw transit rules which do not allow transport of any timber without a transit permit issued by the Government. These are restrictive regulations which make the growers apprehensive about the ownership of the trees they have grown on their own land.

14. (b) Tree Tenure: The tree tenure component was reduced from 13210ha to 1000 ha as a result of the Mid Term Review since few patta holders could be persuaded to take up planting work. Even the lower target have been found to be difficult to achieve.

15. The mission feels that there is hardly any incentive for the patta holder to take up the scheme. Lands allotted to them are very inhospitable. Further, the allottees being poor have hardly any resource to carry out planting of trees that would generate products or income after several years. In spite of these difficulties, we believe that the project should persist with the component. Appropriately revised, this component can benefit the poor substantially.

16. One recommendation for revision is to provide irrigation facilities to the patta land. This could be done by erecting a shallow tube well to a cluster of patta lands and then providing a technology such as silvi-pasture which would generate cash income to the allottees in the first year.

17. Feasibility of the above proposal has to be, however, worked out. The mission recommends that a social, economic and environmental feasibility study of the proposal is carried out by December, 1990 for further consideration of all concerned. If determined to be feasible, a proposal for implementation should be submitted to the Bank for consideration.

18. (c) Nursery: We have already discussed the immediate need of improving seed quality. We are not in a position to discuss other technical issues in nursery since the mission did not have a chance to see any nurseries. However, nursery techniques that produce bad quality seedlings with larger shoots compared to the root volume have been discussed by earlier missions. FD would look up these recommendations and would introduce necessary changes not only in own but also in kissan nurseries.

19. Two policy issues need to be discussed with regard to nursery development. One is that of strategy of developing kissan/school nurseries and the second is that of seedling pricing.

20. Through the nursery decentralization scheme, GOI has been promoting kissan and school nursery. The scheme provides 45 paise per seedling as its production cost to the kissan/school and allows them to sell the seedlings at any price they wish and keep the income. The 45 p subsidy is thus inbuilt in the scheme. This is at variance with what the State has been doing so far through the social forestry scheme. In this scheme, the department assures a buy back of the seedlings at a pre-fixed price. At the beginning however some nursery materials are given, the price of which is recovered from the amount due to the grower.

21. In view of the GOI scheme, UP forest department is now restricting production of the number of kissan/school nursery seedlings equivalent to the amount allotted (the amount has decreased this year compared to last year) by the GOI for the decentralization scheme. The balance of seedling requirements is raised departmentally. This means that the earlier strategy of reducing departmental seedling production in favour of private, kissan, and school nurseries is in fact reversed.

22. The mission recommends that GOI and the State review the whole issue and come up with a uniform policy. We believe and recommend that the strategy should be to promote nursery raising as a business venture by private people rather than as a departmentally administered operation.

23. Kissan and other private nursery owners however would not be able to sell their seedlings at market price so long FD continues to sell them at subsidized prices. The mission recommends that FD should eliminate the subsidy element by 1993 through an increase in the sale price annually over the next three years by a suitable amount. It should be pointed out that the production cost of a seedling includes not only the material and labour costs but also overhead and interest on the investment made in raising it. It is understood that a consultant is studying the production cost of seedlings. We propose that the cost of components mentioned above should also be taken into consideration by him.

24. Public Land Planting: About 44000 ha. of community woodlot, 7000 ha of Government Wastelands and 1125 ha of silvipasture RDF constituting 90%, 77% and 28% of the targets have been raised by the project so far. A recent evaluation of plantations (carried out by the Indian Institute of Public Opinion in New Delhi) from 1983 to 1987 period reports a 63% survival rate for community woodlots and 59% for government wastelands.

25. The mission visited a number of plantations in saline and alkaline soils in Unnao, Rae Bareilley and Lucknow districts. These soils have a pan at about 1 metre depth which is fractured by tractor drills at regular intervals to drain out salts of the upper layers. The species found to be most suitable is Prosopis juliflora. Spacing 2mx 2m is too close if the plantation is meant for timber production but appropriate if managed as a two tier forest. Measurements taken on the spot indicate that 7 year plants at about 5m distances from each other have grown well while those between them are suppressed. Regular coppicing of some plants leaving others at about 5 metre spacing might be an innovative way of making a two tier multipurpose plantation of a pure crop. Growth of these plantations seem to improve with coppicing. We measured an average diameter of 12 cm, 8M height and 75% survival of a 7 year, undisturbed plantation with 2000 stems per ha. MAI was estimated at about 3 tons per ha per year. In contrast a 7 year plantation regularly coppiced at two year intervals was found to have 3.5 stems per plant(about 5000 stems per ha) of 6 cm average dia and 7M height. MAI is estimated at 6-7 tons per ha per year. A

local knowledgeable farmer said that the species do not coppice well after 7-8 years. He also mentioned that Prosopis can coppice three times a year once it has reached a certain vigour. While we may not accept his observations off hand, they are worth investigating. In fact, social forestry is looking for management options which can produce larger volume of fuelwood from unit area at short intervals and sustain it.

26. Management of community woodlots is being handed over by the SFW to the panchayat. This is accompanied by Management plans. It is a very welcome step which the Bank has been insisting on for a long time. Besides these plans, SFW has also produced a large number of microplans. The mission however, during its interactions with the local people, have been dismayed to find that the plans have been done with little or no consultation with the people. The only person consulted is generally the gram pradhan.

27. Consultation with the people is not a means to satisfy equity or some such lofty concern. It is a practical method of involving many problems so that most of the local people perceive the forests to be their own and thus they themselves become instrumental in its utilization, maintenance, benefit sharing and sustenance. It is our considered opinion that the rangers, foresters, etc who are preparing the plans need more assistance and training to prepare the plans in consultation with the people.

28. The mission recommends that (i) SFW reviews the present knowledge on Prosopis juliflora and prescribes suitable management practices (for different requirements of the people) for management plans to follow and (ii) to provide two consultant facilitator teams to train and assist the planners to prepare plans in consultation with the people. Each team should consist of a forester and a sociologist who can be employed for about a year. If agreed to, the terms of reference for the facilitators can be prepared by the Bank/USAID; (iii) take necessary action to broaden the base of the village committee. The present village committees consist of the gram pradhan, forest officials and local government officers such as patwari, etc. who can not represent the aspirations and perceptions of the people of the village. Local enterprising groups such as mahila mandals, youth clubs, etc. may be the appropriate groups for plantation management provided the villagers agree.

29. Research: The research program for the SFW is essential. It should be commended for its current work. However, it must continue to improve its planning and implementation. It must be better coordinated with the overall objectives of the project and its strategic directions. It should become more problem focused (e.g., the focus on rotations and spacing for different species should be linked more closely to management objectives so that the knowledge gained is more closely tied to realities in the field than what is possible on research plots). A research program must be controlled for quality (e.g., research designs, data collection techniques. methodologies).

It must also be directed toward constant synth and interpretation of data to increase the learning from the research eff more quickly. A more problem oriented, strategically directed resea h program can lead to better results that can then be disseminated to the field for adaptation and application as appropriate.

30. The mission recommends that UP submit its research plan, that it moves toward quicker implementation of already recommended research activities; that develops mechanisms and ensures appropriate incentives for linking research with extension and training activities within the project.

31. SFW presented a proposal for a research institute to the Supervision Mission for its review and comment. In principle, the mission recommends that the proposal be approved. However, the Mission also recommends that SFW make modifications in the current proposal before resubmission. The research staff is doing commendable work and could use better facilities. Many of the results are beginning to provide useful information for extension to the field, and an important opportunity exists to better link research with extension and training over the next few years. However, the present proposal for a Research Institute is too vague about its: objectives, justification, and coverage of recurrent costs once donor funding is removed. Additionally, the budget requires more justification. The mission is concerned, for example, about the size of the budget line for the director's office which is quite large relative to the amounts spent on computer and library facilities which are both essential to the quality of the research, analysis and reporting of results of any research establishment. A more detailed proposal should include more information about: background, discussion of need, institute objectives, justification, anticipated outputs, and revised budget. Only after a revised proposal is submitted can a decision be made about the appropriateness of expenditures for of this nature be finalized.

32. Another issue related to research is that of contracted studies. A number of special studies have been identified and funded (e.g., plantation survival, marketing). Some have been completed; others have been submitted in draft; still others remain to be completed. A common concern is that the quality of all of these studies could be improved. For example, the study on project impact needs some clarification of the concept of "impact" which might lead to reinterpretation of some of the results of the study. The mission believes that some of the problems with these studies begins at the outset of the contracting of the studies when the Terms of Reference leave many concepts and tasks undefined. The mission, therefore, recommends that prior to contracting any study, an individual at the World Bank, USAID, or an expert selected by them should review the objectives and terms of reference to ensure clarity, implementability, methodology, priority and potential usability of the study. Upon submission of a draft of the study, the Bank or others should also provide review and comment to assure that the overall quality of the process is improved and to ensure that the end use of the studies by SFW is enhanced.

33. Extension: The mission believes that the extension of the SFD of UP is reasonably ad hoc in its planning and implementation at the moment. Many different activities were described, but no systematic concept of the extension program was presented to the mission. The mission recommends that the SFW should submit a plan of action to the World Bank for review. The plan of action should address issues such as overall objectives of the program, objectives for specific target audiences, messages, media, and methods of action to accomplish specific activities.

34. Monitoring and Evaluation: While the SFW suggested that equipment and training needs had be adequately met, the mission believes that to enhance the monitoring and evaluation activities of the project that additional computer equipment, technical assistance, and training are required. This will enhance the capabilities of the SFD to adequately monitor and evaluate the progress of the Social Forestry program. Over the next year, the mission recommends that SFW acquire more computers, orient all staff in, at least, computer awareness, and provide more specific technical training to those who will be doing data collection and entry. A contract for technical assistance/professional support and orientation/training can provide for continuing assistance on an "as needed" basis to ensure that the programs run smoothly, that the equipment is maintained, that technical questions are resolved in timely manner, and that monitoring and evaluation requirements of the project are general met.

35. Training: Existing training activities should be continued, but revised and refined as new information from research and field experience are gained. Overall, the program needs to be better defined and more strategically planned to ensure that at the end of the next two years that training objectives of the project to that date are met. The mission, therefore, recommends that SFW provide a plan of action for the next two years be developed that identifies the overall objectives of the training program and the various aspects of the program.

CREDIT CLOSING DATE EXTENSION AND PREREQUISITES:

36. The mission is of the opinion that the project should be extended for two years and three months, one year and three months in the first instance and based on a review of the first extension in the second instance by one more year to complete on March 31, 1993. Extension is justified on the ground that the social forestry programme still need departmental support to progress. Farm forestry in the farmers field has progressed well in physical terms but it still needs supply of seedlings and technical extension to improve. The process of handing over plantations in community and public land is ongoing. The villagers need assistance and training to manage them in a sustained manner. A number of studies have been taken up reports of which would be the starting point for further refinement of the project implementation. Unless the project is extended, requirements as mentioned above would not be fulfilled.

37. The mission recommends that the Bank agrees in principle to extend the project by two years and three months to March, 1993. The first extension proposed at this time is however for one year and three months to complete in March, 1992 subject to the following prerequisites fulfilled by GOUP.(i) That GOUP revises rules under Tree Protection Act and under Transit rules to exempt from its operation felling and transit restrictions on all species grown under social forestry in private land and (ii) That GOUP also withdraws the rules which restricts individuals to fell more than 2 ha. of tree crop grown in own land.

An action plan for the extended period prepared in consultation with the SFD is as follows:

Table

Components	1990 - 91	Ha 91 - 92	92 - 93
Farm Forestry	20,000	20,000	20,000
Community Woodlots	1,755	1,755	1,755
Wasteland Planting			
(a) Strip	1,500	1,500	1,500
(b) RDF	6,940	7,000	7,000
(c) Tree Tenure	900	1,500	1,500

Estimated Financial Requirement	Rs. in million
1990 - 91	490
1991 - 92	600
1992 - 93	500

SUMMARY OF RECOMMENDATIONS

Technological Issues	Para.	Responsible
Standardize quality of seeds for nursery	13 (a)	SFW
Introduce soil and moisture conservation technology	13 (b)	SFW
Arrange social and economic feasibility study of providing shallow tube wells for tree tenure component	16	USAID/SFW
Review present management knowledge of *Prosopis juliflora* and prescribe suitable management practices	28	SFW
Provide consultant facilitator teams to train and assist department planners in microplanning and extension	28	SFW/USAID/WB
Broaden base of the village committee	28	GOUP/SFW
Submit its Research plan and continue its implementation program	31	SFW
Submit a more complete proposal for the proposed Research Institute	31	SFW
Ensure that more complete terms of reference are prepared for the contracting of external studies	32	SFW/WB/USAID
Submit a more systematic plan of action for extension program	33	SFW
Provide additional equipment, technical assistance, & training for monitoring and evaluation activities	34	SFW
Continue existing training and undertake additional training activities	35	SFW
Policy Issues		
Exempt all farm forestry tree species from felling and transportation restrictions	13(C)	GOUP
Review whole nursery decentralization policy of GOI	22	GOI/GOUP/SFW
Eliminate seedling price subsidy by 1993	23	GOUP/SFW
Recommendations, not listed above, from previous Missions that have not yet been implemented, are still in effect		

HIMACHAL PRADESH

INTRODUCTION

1. A team consisting of Messrs. A. K. Banerjee and Arnaldo Contreras of World Bank and Ms. Kathy Parker of USAID supervised the Himachal Pradesh subproject of National Social Forestry Project from October 10 to 13, 1990. The work included field visits, interaction with local villagers and discussion with officials of the Forest Department (FD). The report given below is subject to confirmation by the Bank and USAID.

OVERVIEW

2. The project has raised so far about 100,670 ha of plantations against a target of 1,12,833, thus achieving about 90% of the target.

3. The quality of the plantation is variable. While planted pines are growing moderately well, growth of various broadleaved species is much below expectation. Rank growth of Lantana and other weeds in some places, lack of required moisture in others and poor quality of seedlings and overgrazing are the contributory factors. It is necessary to upgrade plantation technology in keeping with the recently developed technology manual. (see paras 17-20)

4. Except for farm planting, all categories of plantations are departmentally done. In spite of having Village Development Committees, participation of the people in the plantation activities is minimal. (see para 28)

5. The mission feels that plantations (except private plantings) raised by the project cannot be maintained successfully if people do not participate in the program. Unless the output from the plantations are sustained over time, the whole effort of creating assets will be lost. At the present time, we believe that the project has not been able to create a favourable attitude of participation amongst the local people. (see para 28)

6. Although only recently initiated, the research program of the project is going well. What is necessary now is to ensure that the findings are extended to the field officers and the farmers. (see para 29-33)

7. The organisation of the FD implementing the project needs to be improved. As the social forestry activity is quite different from that of the traditional activities of the FD, it is expedient that a separate line of control is established in the FD to carry out the project. (see para 11-12)

8. In the plains areas of India (e.g. Haryana, UP) propagation of the social forestry concept particularly on private land is comparatively easy since the product has a cash market which acts as an incentive to the grower. In the hills of Himachal Pradesh, the situation is different. Sites are inhospitable and demand for trees and related products is still low, hence, growth of trees is slower, and weeds and degraded forests are still abundant for free collection. Further, the people have traditional rights to obtain timber and other products from the forests at greatly subsidised rates. Yet, there is no doubt that social forestry, particularly community forestry, has a better chance of success in the hills since degrading forests are causing visible hardship to the people who attempt to collect good quality fuel and fodder for their cattle. What is necessary is to provide a different set of economic incentives than those promoted in the plains.

9. The main impact of the project so far is the generation of employment and production of some low quality fodder grasses and fuel. Plantations raised are obviously too young to be exploited at present. We will discuss later some of the possible methods of getting better participation and larger quantity of products from the plantations.

PROJECT IMPLEMENTATION

10. Budget: By March 1990, the project had spent about Rs 520 million (tentative as final figures are not available) constituting more than 90% of the SAR figures. Anticipated expenditure from April 1 to December 31, 1990 (completion date of the project) is 135 million. The final figure on the completion day therefore is likely to be around RS 655 million. In case the Bank agrees to extend the project by two years and three months which the mission recommends, required funds for the extended period are Rs 65 million for Jan.-March, 1991 Rs 250 million for 1991 92 and Rs 300 million for 1992 93 or Rs 615 million.

PHYSICAL IMPLEMENTATION

11. Organisation and Staffing: Earlier missions have consistently insisted that there should be a separate line of control for social forestry activities. While GOHP has provided some separate staff at the field level, at the supervisory level, the work is still managed by the territorial staff. The functions of the territorial officials often run counter to the concepts on which social forestry is implemented. Thus, unless the two activities are separated, both are managed inefficiently.

12. To build up a separate line of control, it is necessary to approve and fill the posts of a conservator , some foresters and forest guards. (Note: the name 'guard' should be changed to forestry extension worker). Mid Term Review indicated the number of guards and foresters. The mission recommends that if felt necessary FD can revise the numbers but should urgently sanction a separate line of control for social forestry.

13. Civil Works: The project has built 341 units of construction against the SAR target of 329. FD proposed expansion of the Chail training facilities which the Bank agreed to partially finance. FD has however, not forwarded a comprehensive proposal which they promised to do. The mission recommends that the proposal for expansion of Chail training facilities be sent urgently.

CREDIT MANAGEMENT

14. Disbursement: IDA disbursements, as of September 30, 1990, for the 4 states and the CSO/NWDB were SDR 87.5 M which is 52% of the credit and 55% of the SAR estimate. The undisbursed balance is SDR 78.9 M which is equivalent, at the current level of exchange, to U.S. $ 110.5 M. Total USAID disbursement, as on September 30, 1990, is U.S. $ 47 M.

15. Credit Closing Date: The credit is due to close on December 31, 1990. GOHP has requested for an extension of HP subproject by two years three months to complete on March 31, 1993.

16. Compliance with Covenants: Except for establishment of a separate line of control for the project activities, all the other covenants are complied or are partially complied with, not affecting implementation.

TECHNICAL DISCUSSION

17. Rehabilitation of Degraded Forest (RDF): Earlier missions, particularly the Mid Term Review mission, have discussed technological issues at length. A technological manual has also been prepared in a workshop of foresters. Techniques proposed in the manual are being gradually adopted, and the mission was advised that these technologies would be fully adopted by next year. The mission recommends that improvement of seed quality, soil and moisture conservation technology, introduction of shrubs and Vetiveria and introduction of correct species on the basis of the peoples' needs should be given the attention they deserve. Research work initiated in Parmar University confirms that contour trenches and gradoni terraces enhance tree and fodder crop growth substantially of the tree.

18. An issue which has not been discussed in the technology manual in detail is the question of weeds particularly of Lantana. Weeds can severely affect the growth of planted trees. If the weed is cut, it grows more vigorously; if uprooted, they are partially controlled but come up again unless regularly removed. Such continuous attention in maintenance would be prohibitively expensive. Also, if no advance soil conservation measures are taken, uprooting might also lead to erosion on the sloping land. It is obvious that the problem of weeds is a challenging one which needs special attention. At the same time, there are large number of private fodder croplands where the only shrub is the beneficial Indigofera sp (leguminosae) which the farmers encourage. On these private lands, Lantana is totally absent.

19. The mission had long discussions with the people in a number of well attended meetings. Farmers believe that Lantana is a menace that the social forestry department should eradicate. Villagers would consider it a great service to the community. When asked how they eradicate weeds, like Lantana, in their fodder cropland, people responded that it required uprooting and continuous attention thereafter. The mission discussed further how local people can contribute to its control. One idea that emerged related to plantations in unclassed and undemarcated protected forests. The FD can arrange for initial uprooting of Lantana and other obnoxious weeds, carry out required soil works including soil and moisture conservation practices, plant the species, and then hand the responsibility for sustained care of the resource base over to the Village Development Committee for further management. The Committee would then divide the usufructs amongst the local beneficiary families who would then maintain the lands as pasture, fodder cropland or fuelwood reserve. Farmers reacted very favourably to the idea.

20. The mission recommends that FD pursues the idea in a few places next year, calculate costs and monitor the results. With the proposed technology changes, the cost per ha is likely to go up. On the other hand, the cost of maintenance will be reduced. FD should also be at liberty to reduce the number of trees per ha to encourage pastural and fuelwood/shrubs to be grown in between tree lines and decrease overall cost at the same time. If it does succeed and is cost effective, the problem of Lantana can be solved in planted areas at a reasonable cost. Additionally, a lot of direct benefits will accrue to farmers individually.

21. Private Wasteland Planting: Under this program, two alternatives were provided to the farmers. In the first, 40% (now proposed 50%) of the total costs of the plantation would be granted to the farmer in the form of material input while the labour would be provided by the farmer. In the second alternative, the extent of area for each unit would be restricted to less than 2 ha which has to be owned by at least three farmers, none of whom owns more than 1 ha. In these areas, 100% of the planting and their maintenance work would be done by the department. The output would be shared by the private wasteland owner and the department at a ratio of 3:1.

22. In spite of large areas being covered with trees and fodder under these programs, the overall quality of performance seems to be unsatisfactory. The original intention of supporting poor and marginal farmers has not been met. It has been reported that some of the farmers who participated in the first alternative mentioned above have not maintained the plantation crop and have since converted the areas to non-forest tree crops. The mission recommends that private wasteland planting program be curtailed and the target reduced.

23. Community Plantations: Two subcomponents of this project component are self-help and rainfed woodlots. The idea behind the self help woodlot is to encourage public participation in raising woodlots on community land. An incentive to the community is the free supply of materials to the extent of 40% of the total cost of the plantation. The percentage is going to be increased to 50% beginning this year. The target was low, and 90% of it has been achieved. However, enthusiasm amongst the villagers for the program is generally lacking presumably because voluntary labour is at one's personal cost while the benefits accrue to the community. Therefore, the share distributed to the individual is not clear from the outset. Additional disincentives exist in the form of restrictions on felling and transport of timbers raised on the private and community land, therefore few incentives exist which encourage villagers to plant trees.

24. The second subcomponent of the program is departmental planting of ex-shamlat and undemarcated forests and their maintenance. People are allowed to use their usufructs. Through this subcomponent, 43,153 ha of plantations have been raised which constitutes about 90% of the overall target.

25. The mission recommends that: (i) targets under the second subcomponent should be increased while that of the self help are curtailed; (ii) trees grown on private or community woodlots should be exempted from the perview of regulations restricting their felling or transport. However, in the rainfed subcomponent, greater public participation has to be insured through Integrated Resources Management Plans (IRMP) which are discussed below.

26. Integrated Resources Management Plan (IRMP): Integrated resource management plans have been prepared for 1319 villages/groups of villages (mahals). The plans, to be prepared in consultation with the village development committees (VDC), analyse the biomass needs of the people and their cattle and propose methods to meet them. While discussing with some of the villagers in areas for which IRMPs have been finalised, it seemed that local participation in the preparation of the IRMP was negligible. The mission believes that the planners (rangers, foresters) need additional training in the planning process that includes local participation.

27. The mission recommends that a team of consultant facilitators should be engaged for about a year for this purpose. The team, consisting of one forester and a sociologist (NGO), would train the planners by doing the plans with them. In the mission wrap up meeting with state officials, this proposal was agreed to by FD. The mission urgently recommends that the Bank/USAID and the FD prepare a terms of reference for the facilitator teams and arranges selection and placement of the teams.

28. Extension: The mission believes that the extension program of the State is beginning to yield some effect. A recent monitoring and evaluation report suggests that large numbers of people, at least, have awareness of a number of Social Forestry Wing (SFW) activities. It was not clear, however, from the supervision visit about how systematic the extension program of the State is. The mission recommends that SFW should prepare and submit a systematic plan of action for its extension program over the next year including necessity of strengthening of staff at field level. This has been discussed in detail by Midterm Review.

29. Research: The research program under contract with Parmar university should be commended for its rapid progress, generally good designs, and potential contributions to knowledge about social forestry species, practices, and technologies. Some modifications, however, will enhance the immediate contributions of this research effort.

30. For example, in technology: growth rates appeared to be generally low on some plots and technological issues related to these growth rates need to be re evaluated, e.g., perhaps planting on sites such as the terrace itself rather than only on the berm where the soil has been moved will provide more moisture and hence better growth for some of the species being tested.

31. For economics research: it would be useful to consider various alternatives rather than only species oriented economic research which is currently being proposed. The agroecosystems being used in reality are quite diverse, therefore, research on individual species within these diverse systems, while interesting, is less important than understanding the economics of the system itself. Some alternatives might include looking at a single agroecosystem (e.g., silvopastoral area) or looking at the total holdings of individual farmers which might be even more diverse in structure (this research might lend more insight into optimal systems over a range of systems), or looking at forest systems which might be more species oriented. These will undoubtedly provide more useful information, especially considering the diversity of the systems that are used and the diversity of the species used, often in the same system.

32. The research effort should also begin to move more into applied field resesarch off the research station sites. It should begin to move quickly to synthesize and publish its results. This information, at the very least, should begin to move into technical manuals and into training curricula to enhance their content and to update foresters on the newest most promising technologies and practices.

33. The mission, therefore, recommends that the research program be commended for its existing work but should undertake the suggestions identified above. This would include field oriented research work, extension to field officers, and continuing refinement of its research planning process. Changes should not be made in what is functioning well at the moment. However, where problems exist (e.g., the current orientation of economics research), plans should be revised and research implementation should quickly move to reflect these changes.

34. Monitoring and Evaluation: As was indicated in Himachal Pradesh, problems do exist with the format of the Monitoring and Evaluation program. While these problems are being addressed, it is important to continue to improve the capability of FD. The mission recommends that more computers be acquired and/or existing ones be updated, that computer awareness orientation should be provided to employees at all levels, as appropriate, and that personnel with responsibility for using computers have continued training and technical assistance/professional support through a contract for technical assistance to ensure that the computer tools serve the needs and purposes of the FD and so that in house capacity will be enhanced over the next two years. For assessing the requirement of computers and development of programs and training, a local consultancy should be provided, by USAID/World Bank, to be charged to the Project.

35. Training: Because of the lack of funds, the four existing training centers need to have financial support to continue to serve their purpose of training foresters and forest guards. These training centers will be closed unless additional support is given. Training for DCF's and ACF's in the universities have also been closed due to lack of financial support. This should also be reviewed. The mission recommends therefore, that the training centers should receive continued support. This, however, also raises the issue of the overall planning and implementation of the training program of HP. The mission recommends that the SFW submit a plan of action to the Bank for its training program over the next two years.

CREDIT EXTENSION PREREQUISITES

36. Credit Closing Date: The mission recommends the requested credit extension to March,1993 in two steps, first by fifteen months to be completed on March 31, 1992. Then, based on a review of progress to be undertaken at the end of the first extension, a second extension is recommended for one more year, thereby to be completed on March 31, 1993. The prerequisites proposed by the mission for the extension is that GOHP would establish a separate line of control for social forestry as discussed in paras 11 and 12.

37. The extension is justified on several grounds: (i) unless financially assisted, GOHP would be hard pressed to carry out the level of ongoing activities; (ii) the tempo of physical activities is satisfactory but public participation which is essential to maintain the assets created is yet to be built up and closely monitored; (iii) the organisation set up is yet to be fully modified to be self sufficient for social forestry activities in the near future; iv) technology is being modified but more time is required for its refinement and wider adoption.

Plan of Action

The mission, in consultation with the FD have prepared the following program for the 1990-1993 period:

Component	Year 1990-91	1991-92	1992-93
Agro forestry			
Raising of Seedlings (No. in millions)	8	7	-
Distribution of Seedlings (No. in millions)	12.4	8	7
Tree Tenure Seedling distribution (No. in million)	1.34	-	-
Private Wasteland Planting (50% subsidy)	3,954	546	500
Community plantations			
Self help (ha)	303	100	97
Rain fed (ha)	8,347	8,500	13,000
Departmental plantation (ha)			
Rehabilitation of Degraded Forests	2,928	1,984	1,734
Silvo pastoral operation	1,643	2,000	2,000
Fuel Saving devices			
Chulas (No.)	1,777	2,000	2,200
Cookers (No.)	500	1,000	1,000
Crematoria Improvement	87	125	125
Financial requirements (Rs in millions)	200	250	300

SUMMARY OF MAJOR RECOMMENDATIONS

Recommendations	Para	Responsible
Technological Issues		
Introduce soil and moisture conservation technologies	17	FD
Improve quality of seeds in nurseries	17	FD
Take up Lantana control in rehabilitation of degraded forest component	18.19	FD
Make modifications in research program	33	FD/Universities
Improve Integrated Resource Management Planning process with incorporation of technical assistance facilitators	27	FD
Submit an action plan for the extension program	28	FD
Purchase more equipment and provide more orientation and training for the Monitoring and Evaluation Program	34	FD
Provide support for 4 training centers	35	WB/USAID/FD
Submit an action plan for training program	35	FD
Policy Issues		
Establish direct line of control in the organization for social forestry activities	11, 12	GOHP/FD
Exempt all trees in social forestry from the purview of felling and transportation restrictions	25	GOHP/FD

Recommendations, not listed above, from previous missions, that have yet been implemented, are still in effect.

CENTRAL SUPPORT OFFICE
NATIONAL WASTELANDS DEVELOPMENT BOARD

1. Messrs A. K. Banerjee, P.Guhathakurta (World Bank) and Amitabha Ray (USAID) met with Messrs Samar Singh, Additional Secretary, G.C. Ghildial, Joint Secretary and other officials of the NWDB to review the future role of NWDB and activities of the seven regional institutes in the context of the proposed two-year extension of the Credit Closing Date beyond December 31, 1990

2. It was suggested by the World Bank/USAID that the NWDB should pursue with the states their conflicting stands on 'Seedling Pricing'. It was pointed out that subsidy in sale price of seedlings should be eliminated to allow emergence of market demand-oriented production and supply with a large share of seedlings coming from privatised nurseries.

3. It was agreed that seven regional institutes will be persuaded to participate in the future supervision missions of the Bank and USAID-assisted projects in the states to gain valuable experience and insight into implementation progress, problems and prospects, and to provide expertise in supervision. NWDB agreed to call upon the institutes to complete assigned tasks (a) on status of social forestry and wastelands development, and (b) of collection os state-wide pool of data, in line with the recommendations of the January 1990 Workshop at IIM, Ahmedabad. It was decided further that tasks of the regional institutes in the next two years will be closely related to social forestry goals and objectives. The tasks should also avoid duplication of the studies and trainings underway or completed. It was agreed that the TORs for the studies will be mutually drawn between the NWDB, and the Bank and USAID for maintaining consistencies and quality of works by each regional institute.

4. It is also recommended that the NWDB meets the states to discuss the following issues and arrive at rational policies on :

- Removal of restrictions on felling and transportation of tree products grown in private land by farmers;
- Application of Forest Conservation Act, 1980 on Tree Tenure;
- Formation of village institutions appropriate for participatory planning, protection and management of social forestry plantations on community lands and RDF; and
- Establishment of linkage of agro-forestry extension with the Agriculture Department's TV system.

5. NWDB was also informed of the status of the on-going USAID collaborative TA programme with US Forest Service's Support team with the Government of India/State Forest Departments to support NSFP, particularly on research, training, studies, technology and M&E, recommended in the MTR of February 1988 to bring qualitative changes in the private and public land tree plantings in the country through adoption of improved technology, research methodology and planning approaches. The TA is likely to be launched by early next year. NWDB welcomed the move.

6. NWDB was also apprised of the Bank's plan for an Asiatic regional review of Social Forestry. Review for India to be done with FRG assistance in the coming nine months would include collection of authentic information on the programme on production, equity and marketing, technology, deforestation, institution, sustainability etc. A copy of the TOR for various tasks, to be done primarily by local consultants was given to Mr. Singh for NWDB's comments. NWDB welcomed the review and assured participation.

CHAPTER 4 : TECHNICAL ANALYSIS

SOCIAL ASPECTS

by

J. Kathy Parker, Ph.D.

Introduction

The National Social Forestry Project (NSFP) has neared the end of its originally defined 5 year life. Since World Bank support for the project continues, the Project itself will not actually come to an end until March 1993. Therefore, a truly final evaluation will occur a number of years hence. USAID's support to date (i.e., as defined by the Project Paper and Project Agreements) is being evaluated to the extent possible. This document serves as a technical report for the Evaluation/Supervision Report.

Objectives of this Technical Report

The NSFP Project Paper defined a number of objectives that had technological, institutional, economic, environmental and social implications. Most specifically, focusing on some of the social implications, the NSFP Project Paper's Rationale statement describes the major tasks of India's national social forestry activities as:

1) the need to find cost effective means to mobilize individuals, groups and community organizations outside government to take up tree planting; 2) the need to solve the particular problem of reforesting common lands which present perverse incentives for overuse; and 3) the need for equity-- meeting needs of the relatively poor (USAID 1985:9).

Therefore, this report addresses (as per the Scope of Work) issues such as:

i) participation of landless and marginal farmers

ii) joint Forest Department/Panchayat planning and management of village woodlots

iii) benefit distribution and equity considerations

iv) effectiveness of experimental models, and

v) training and extension

The report also responds to one of the principal purposes of the Evaluation itself, which is to recommend to USAID a set of additional professional services that it might provide to NSFP through other mechanisms, such as the Technical Assistance Support Project (TASP). The recommendations, found in the final section of this report, focus on activities such as technical assistance, research and studies, and training that will help ensure the effectiveness and sustainability of Project activities once external support ends.

Methodology for this Report

This report draws on a number of sources. These include:

- observations from brief visits to the States of Uttar Pradesh (October 4-8) and Himachal Pradesh (October 10-13);
- discussions with World Bank team members, State officials, representatives of several Non-Governmental Organizations (NGOs), villagers and panchayat leaders, and USAID staff;
- review of selected literature on social forestry in India;
- professional experience working on social forestry and related natural resources management issues in other parts of Asia, Africa and Latin America

The rest of this report is divided into the following sections:

1) Brief background on the project

2) Summary conclusions on social dimensions of the National Social Forestry Project

3) Discussion and analysis of the select social aspects of the Project's major components (i.e., tree planting/production programs and institutional development)

4) Recommendations to USAID for future professional services to NSFP

Background on the NSFP Project

Social Forestry in India has had approximately two decades of evolution. The Government of India (GOI) and a number of donors, including the World Bank, USAID, England (through its Overseas Development Administration--ODA), and Federal Republic of Germany, through its Deutsche Gesellschaft Fur Technische Zusammenarbeit (GTZ). have supported social forestry activities since the 1970s. Designers of these projects have focused most of their attention on reducing the shortages of fuel, fodder and other products that are needed at the local level in many rural and urban areas around the country. The projects have tried to provide both goods and services from forests and trees. They also have attempted to provide opportunities to rural populations in the form of employment and income generation through the establishment and maintenance of nurseries and tree planting on private and public lands.

The World Bank and USAID initiated the National Social Forestry Project in 1985 with the States of Gujarat, Himachal Pradesh (HP), Rajasthan, and Uttar Pradesh and with the National Ministry of Environment and Forests of the Government of India (GOI). The original goals of this jointly funded project were "to raise incomes and employment among the rural poor by increasing production of small timber, fuelwood, fodder, and other forest products. An important collateral goal, served by achievement of the main goal, is to arrest erosion of the natural environment caused by deforestation" (USAID 1985:11).

The Midterm Review (World Bank/USID 1988:1) rearticulated the NSFP's overall objectives as:

a) increase the production of forestry products (fuelwood, small timber, poles and fodder) to help meet national and local deficits;

b) increase rural incomes, employment and equity, particularly opportunities for the poor and landless; and

c) reduce soil erosion and improve the environment on degraded wastelands.

To a great degree, these objectives reflect many of the Government's expectations about the range of benefits that would flow from social forestry activities across the country. Among these anticipated benefits were; i) stabilization of agricultural production by reducing the process of desertification and by increasing the amount of organic fertilizer (i.e., by producing more firewood, cowdung would be replaced as a fuel and thereby could again serve as a fertilizer); ii) production of raw materials to support development of cottage industries; and iii) improvement of overall climatic conditions (e.g., check pollution, reduce impacts of cyclones) (Shingi and others 1986).

Project activities to meet these objectives by categories of land ownership/management responsibility included but were not limited to:

- Private land: e.g., seedling distribution for farm forestry, private wasteland planting;
- Tree tenure lands for the poor and landless: e.g., strip plantations and household and group farm forestry;
- Community Wasteland Plantations: e.g., community lands, panchayat managed lands, rainfed community woodlots, irrigated woodlots and tree fodder plantations;
- Government Wasteland Plantations: e.g., plantations on Rehabilitated Degraded Forest (RDF) lands, strip plantations, and fuelwood plantations.

Institutional development activities complementing these tree planting activities have included a range of policy, organizational, research, extension, training, technical assistance, planning, and monitoring and evaluation activities that were evaluated in the Midterm Review and have been monitored subsequently via the bi-annual Supervision mission process of the World Bank.

General Conclusions about Social Asppects of NSFP

Many social issues raised in the Midterm Review cannot be adequately re-evaluated in this report because of limitations of time in the field for observation, discussion and in-depth investigation. However, a number of general conclusions can be drawn.

1. Local people are the majority of natural resource managers at the local level in India. This contradicts the traditions of professionally and technically trained foresters who believe that they are the resource managers. However, it is a fact that is central to the concept of social forestry. It is also a fact of life for which adjustments in institutional attitudes, practices, performance incentives and the like must be made in order for the success and long term sustainability of social forestry activities in the country.

2. The fundamental causes of natural resource degradation and rural poverty include: demands being placed on the resource base by increasing populations of people and livestock; scarce resources (e.g., good soil); and maldistribution of resources. The symptoms of these problems are deforestation, soil erosion, and other resource-degrading processes as well as lack of employment opportunities, markets for produce, and the like. While technological and biophsycial solutions (e.g., faster growing multipurpose tree species, terracing to reduce soil erosion, silvicultural practices, better transportations systems, etc.) can address parts of the problems, social, economic, and institutional solutions must also be integrated with these technological and biophysical solutions in order to effectively address even the symptoms of these problems.

3. In concept, social forestry, broadly construed, addresses a number of the symptoms of the problem of natural resource degradation. Concomittantly, social forestry attempts to address the related problem of rural development by ensuring that local people have adequate access to natural resources that meet subsistence and income needs. Fundamentally, social forestry uses forestry activities (in a variety of forms that include natural forest management, plantations, production of trees in farm forestry systems, silvopastoral systems, and the like) as a means to ends, rather than as ends in themselves. Those ends are a sustainable resource base for rural development.

4. Thus, social forestry requires the integration of biophysical, technological, socioeconomic and institutional responses. In other words, meeting physical tree planting targets, improving and selecting species that are adapted to specific soil and site conditions, and applying better management to ensure long-term yields, are essential to project success, but they are not necessarily sufficient to achieve success and perhaps as importantly to achieve sustainability. Also essential are socioeconomic aspects, whether on private or community or public lands.

5. It is important to stress that these social aspects of project activities are very difficult to address. The complexities of Indian society and tenurial patterns explain some of the obstacles to ensuring participation. For example, in the plains of Uttar Pradesh, village populations represent multiple castes, often with no single caste being predominant. In the hills of the State, however, the Thakurs represent a majority of the population, and Panchayats are typically stronger institutions than those in the plains (Saxena 1987). Land tenure patterns may include individual ownership; individual ownership but with the rights of others guaranteed to use that land (e.g., for grazing, as a path); temporary ownership; periodic occupation; individual rights (e.g., for fuel, fodder, fruits) on government lands; community lands with rights for all members of the community; and government forest land (Banerjee 1990). Variations, such as these, in addition to those such as the availability of rainfall or irrigation, soil conditions, seedling quality, species appropriateness, and so forth make it impossible for a "blueprint" process of interaction and action to be imposed by government agencies as they implement social forestry programs.

6. Generally, NSFP has progressed in its efforts to: define and establish ways to mobilize people's participation, ensure that incentives and mechanisms exist to get people to plant and maintain trees; and distribute resources more equitably at the local level. However, a significant gap remains between rhetoric and reality when it comes to the integration of social dimensions with the more technical and biophysical dimensions of traditional forestry practice. Certainly, expectations exceed performance to date along these lines.

Analysis and Discussion

In sum, a number of the factors identified in the Project Paper and Midterm Review, such as distribution of benefits, local participation, and activities to support participatory processes at the local level are still lagging behind most of the technological aspects of the tree planting targets under project implementation. This is all to say that, in part, this project is Social Forestry in name only in some of the States and in many of their districts. What exactly the "social" part of the forestry activities is, in reality, varies in the four project States. In some cases, it means employment; in others it means playing a role on Village Development Committees; in others, it means a return on an investment of labor; in others it means income generation from the sale of the timber produced on one's own land. The following more systematically identifies, analyzes, and discusses selected social dimensions of each component of the National Social Forestry Project.

A. Tree Planting Programs

1. Private Forestry: In this project component, many analysts agree that NSFP has had some reasonable success in terms of getting people to plant trees on private fallow land, field boundaries, and in blocks on previously cropped or degraded agricultural lands. The 'success' has not come without considerable criticisms, however. These include:

- it has benefitted richer segments of rural society since they are the ones who have private lands on which to plant income-generating trees
- it has encouraged species (most particularly *Eucalyptus*) which has been reported to have harmful effects [Note: this criticism is still being debated.]
- it has symbolized the continuation of more top-down government approaches in forestry;
- it has produced trees for cash market rather than for the production of fodder and/or fuel for domestic and local consumption;
- it has encouraged farmers to convert lands from agricultural production to tree production which is less labor intensive and thereby reduces employment opportunities for the landless.

Whatever the criticisms, some lessons have been learned about achieving participation in private farm forestry. 1) Primary among these are that benefits which accrue to the individual who participates is a critical factor. In other words, if a private landowner invests time, energy, and/or other resources (e.g., irrigation, a supply of generally landless laborers needing employment) in tree planting, the landowner generally receives the direct benefits derived from those investments. 2) Another critical factor is that demand exists for a range of forest, tree and related products. These may include fuel and fodder which are the primary concerns of the project's design as well as pulp and paper which provide major commercial cash crop markets for farmers who have land, seedlings and technical assistance to participate. The cash crop markets rather than the subsistence needs of local people have been the primary target of many of the private planting programs. 3) Another critical factor relates to technology. That is to say that technologies have been made available to farmers These include fast-growing, multipurpose tree species. 4) Seedlings, freely given (in some few cases) and/or concessionally priced, provide additional incentives. 5) Finally, as the project has evolved, the State Forestry Departments have made information available through technical assistance and extension efforts and through research which is beginning to enhance the productivity of species on the soils and under the conditions that prevail in various districts.

One of the major obstacles to the success of these Private Farm Forestry Programs has been a set of disincentives which contradict policies and programs for tree growing. These disincentives primarily are restrictions on tree felling and on the transport of felled trees. While most States have increased the numbers of social forestry species that are exempted from felling, restrictions still remain. For example, in Uttar Pradesh the status of restrictions on sissoo is not clear. In Himachal Pradesh, trees must be 10 years old before they can be cut or a new proposal will require that trees must be at least 20 cm before cutting. State Forestry Departments generally believe that if the restrictions are removed farmers will cut all of the trees on their private lands to gain short term profits.

Transport restrictions require any tree that is felled must have a permit to be transported. While the government insists that it provides transportation permits quickly, many tree growers disagree. The bottomline is that both sets of restrictions inhibit individuals from disposing of their tree products. Without an incentive to receive a return on their investments (e.g., time, money, labor, land that might be used for other purposes such as agriculture), farmers simply do not have an incentive to grow trees (Banerjee 1990).

[Note: The issue of subsidies and seedling pricing as an incentive or disincentive is discussed in greater detail in the Economic Issues Technical Report.]

2. Public Forestry Issues: In other components, such as Public Forestry with its community plantations, community wasteland plantations, Rehabilitation of Degraded Forests and experimental programs for the poor and landless, the project has met many of its tree planting targets. Unfortunately, rural people were rarely included in the decisionmaking process related to these activities. This raises a contradiction. How can a forestry project which is meeting its tree planting targets and increasingly its seedling survival targets not be a success? This is a fundamental concern for any social forestry project. One finds reaffirmation of this concern from Indian analysts who state that:

> The success of social forestry programmes, irrespective of the models, depends largely on effective people's participation at various stages of their implementation. ...people's direct involvement in the programme is necessary right from the project formulation stage where decisions are taken regarding selection of site and species, mechanism of protection and maintenance, distribution of benefits and marketing of forest produce. (Sen and Das 1987:1).

The following are a set of key social dimensions to the public forestry component of the project. They briefly discuss the nature of the dimensions and provide some guidance on ways to address these issues in the future.

a. Community management of resources is a problem for social forestry programs today. Effective controls used to exist for common property resources, but today government policies and regulations have disrupted most of the traditional systems. Since the early 1950s, these policies and regulations have abolished most of the local systems that regulated access, such as restrictions by season on use, grazing in rotational systems, fines, fees, taxes, and watchmen (Poffenberger 1980). Without these systems and with increasing demand on resources, many of the lands previously thought of as common property have become open access and subject to difficult if any control on exploitation.

Additionally, local politics, caste systems, divisions between villages, and the like as well as current attitudes about the need for government subsidies before an individual or a community will undertake action--all these inhibit project performance in social forestry at the community level. It is simply not fruitful to recommend privatization of all land and resources. That will not happen.

Literature does exist with details on factors for successful forest management at the community. For example, Ballabh and others (1990:12-13) observe that:

> Requirement for successful forest management includes small homogenous groups having high stake in the resource; good leadership assurance of equitable distribution of usufruct and existence of an organization to formulate and enforce the rules, professional management, etc. ...It has also been reported that the communities are better able to protect those forests better which are viable having shorter gestation period and are situated near the community... .

In addition to literature such as this are the recommendations from the Midterm Review. They bear careful reconsideration and more in-depth study as efforts at community and public land forestry continue to evolve. (See Technical Annex 6 in Vol. III of the Review, pp. 54-59).

b. Another issue related to social forestry is that of employment generation. The impact of the project seems to vary on this important objective. In Gujarat, it appears that employment generation was considerable (Leuschner 1990). One study in Uttar Pradesh suggests that in that State the impacts were considerably less. The study looked at eight districts (Sitapur, Rae Bareli, Pratapgarh, Azamgarh, Meerut, Badaun, Mirzapur, and Lalitpur) and found that "employment provided to the rural landless labour was found [to be] one percent or less except in Lalitpur which is comparatively a thinly populated district. In terms of the total number of people provided employment on yearly basis (300 days being taken as equivalent to a year), the number is somewhat sufficient for one medium sized industrial Unit." (Association for Rural Development, Energy and Environment 1990). While this is a single study, looking only at eight districts in one of the Project's four States, it suggests that Project impacts on employment, particularly for the landless, perhaps has been less effective than originally desired. It is not possible to draw any conclusions from these limited studies about the policy implications of social forestry and employment generation. Further research is required to provide a more complete picture about the experience to date and the possible reasons for why social forestry has succeeded or failed in various areas to meet its employment objectives.

c. Joint Forestry Department/Panchayat Microplanning provides a conceptual framework for participatory planning. It has not been implemented, however, to the degree envisioned by project planners and evaluators. The failures at microplanning relate to many of the problems listed above: physical target focus, attitudes of forestry department personnel, diversity of community interests). Looking at the social dimensions of the microplanning process, the following provide guidance on how to ensure that the process produces appropriate plans; ensures local participation and input into decisions about tree planting sites, species preferences, management and protection options, and benefit distribution; and provides a basis for individual and community understanding about these issues that can serve as the basis for sustained forestry and tree planting and maintenance activities over time.

The following concepts provide a framework for understanding and potential action for incorporating and sustaining people's participation in longer term management of natural resources, especially after external project funding has ended. These concepts (described in greater detail in the Analysis and Discussion section) and even these specific words, are found throughout the literature on participation of people in natural resources management more generally and in social forestry literature in India more specifically. Any number of actions can flow from these concepts to more systematically ensure that social forestry is more effective and sustainable via people's participation as blended with sound forestry and tree production practices.

- o <u>expectations</u>. This means finding out what people want/expect. What are their visions of the future? What is the nature of their changing consciousness and awareness about resources? What are clear definitions about what each expectation means? It also means finding out what expectations others hold, such as foresters, cooperatives, consumers and the like. Diverse and often contradictory expectations exist which must be understood and addressed.

- o <u>engage</u>. This means giving people an improved link with their resources, i.e., a sense of greater access to and control over the resource. This can include a range of things, from outright tenure to land, to tree tenure, to access to resources through clearly defined distribution of benefits flowing from trees, shrubs, and/or grasses produced through project action.

- o <u>encourage</u>. This means providing people with interest in forests and trees, based on what they likely will get out of participating in social forestry activities. This includes providing them with greater awareness of what both the short term and long term goods and services (e.g., economic, environmental and others) are that will accrue to the individual and the broader community through participation.

- o <u>enable</u>. This means providing people with the wherewithal to plant, utilize, and sustain their resources over time. This may include among other things, supplying good quality seedlings through nursery and seedling distribution programs, providing market information, etc. It also means providing processes and opportunities for people's participation in the decisions and actions related to: definition of management objectives, selection of species (within the bounds of those that are biophysical suited to specific locales), identification of sites on which trees, shrubs and grasses should be planted, decisions about the distribution of benefits once growth and yield of resources are adequate, etc.

- o <u>educate</u>. This too is a major means of "enabling" people. However, it merits separate attention because it plays such a key role in social forestry. Education can generate interest, increase awareness, and provide information for prudent resource management and decisionmaking, as well as about existing rules and regulations.

- o <u>empower</u>. This often has negative connotations, but here it refers to the results of the other elements described above so that people are ensured the means to realize the powers that they have inside of themselves. Empowerment comes through engaging people with their resources; by encouraging and enabling people to establish, maintain and benefit directly from their participation; and by educating people about their natural resources, their rights, and their responsibilities.

d. Distribution of benefits from the tree plantings and management programs varies considerably. Privatization of land is one means of ensuring broader participation of people in the distribution of benefits from the project. On community and public lands, while equitable distribution has been a major objective, it has rarely occurred. Clear definition of the rights as well as the responsibilities of local villagers who use and are expected to maintain the resource base over should be articulated by the broad base of the community rather than specific groups within it. Village Development Committees have been created in many villages but are composed of officials and are therefore not representative of the broader community or the committees do not really function. Other committees exist as do local women's groups, young groups and others that might be tapped to help articulate the benefit distribution for the community at large. Again, many issues have been identified in the Midterm Review and in existing literature. No "blueprint" for distribution can be recommended; however a few guidelines might be appropriate. For example, it is particularly important to ensure that those who participate receive benefit in proportion to the level of their participation. It is also important for foresters to remember, especially considering the time frame for tree growing, is that species and systems (e.g., tree-shrub-grass) must be designed to provide some resource benefits that can be distributed over the short term and continue to provide resources (e.g., twigs, poles) until the tree mature. Only then will people begin to realize the potential benefits of trees and have a sense of the value of sustaining tree planting and management activities over time.

NSFP has attempted to provide some experimental programs that focus on the distribution of benefits to the landless and most marginal of farmers. They still remain the ones who benefit least. While these people have been given tree tenure in some areas, the lands on which they have had to plant trees has been some of the most degraded and least apt to yield. While tree tenure is an important contribution of the project, other inputs are required, including information, quality seedlings, water, etc. In all of the States except for Uttar Pradesh, the tree patta activities have been reduced considerably. In Uttar Pradesh, efforts continue, but the constraints remain. In one area, the most limiting factor is water for the trees. Evaluation team members believe that if a feasibility study could be done to determine whether alternative schemes exist to provide water. It would be important to ensure that the effort would be cost effective and that the potential economic, social and environmental implications of an effort to provide water to the tree patta schemes are identified before proceeding with the project. For example, if water is provided and the quality of the land is improved, the landless might soon lose access to it since its value to other richer segments of society might be increased.

B. Institutional Development (Capacity Building Support Activities)

As with the previous discussion of the NSFP's tree planting activities, this section will draw out of each subcomponent some selected social dimensions for evaluation and discussion.

1. State Level Organization and Management

Other documents discuss Social Forestry Wings and the need for separate lines of control (See the Aide Memoires for the individual State reports). The following points address three important socio- institutional issues related to the organizations that plan and implement social forestry activities and the impact they have on the success or failure of social forestry programs:

- o institutional incentives for local participation
- o leadership
- o multiple institutional mechanisms for project implementation

a) It is important to note that some progress has been made during the course of the project to actually make the needed changes in the institutions, attitudes, and actions of the State Social Forestry Departments (SFDs) involved. Much progress remains to be made as the concept of social forestry evolves in the project's four states. Institutional incentives must be changed to move that evolution more directly, positively, and rapidly forward.

Incentives here refer to those which encourage individuals in the Forestry Departments to work toward the intent of social forestry: i) foresters doing microplanning in consultation with villagers or with responsible local committees; ii) researchers listening to and working more closely with villagers to shape a problem-focused agenda; iii) performance evaluations that reward participatory actions as well as the meeting of physical planting targets.

At some point it will be useful to evaluate how much the lack of local participation is a functional of institutional constraints or lack of incentives. The following questions might help guide such an inquiry: Are ambitious planting targets getting in the way of the process of involving people? What incentives exist for meeting physical targets as compared to those for working toward more participation and benefit for local people? Is participation, when it does happen, more by mandate from the "top" (i.e., the Forestry Department) or by choice of the participators? How much do trees continue to serve as ends rather than as means for achieving something more than just tree planting?

b) A somewhat related institutional issue is leadership which is critical to the progress of social forestry. Basically, one of the necessary aspects of an organization's implementation of any program is leadership. If leaders do not provide vision of the purposes and potentials of incorporating local participation and if administrators/managers do not provide the guidance and skills, then staff will not aspire to that vision. It is hard to imagine that the turnover in leadership in most State Social Forestry programs (e.g., since 1983, UP has had 6 Chief Conservators/Social Foresters) can lead to the kind of vigorous and consistent leadership that is required. Shinghi and others (1986) report that top leadership has been behind social forestry, but at lower levels of management rhetoric has been difficult to translate into action. Now, with the future of Social Forestry being folded more directly under the umbrella of forestry sector development through the Tropical Forestry Action Plan (TFAP) process, some of the progress actually gained may be lost. USAID, however, has an important role to play in continuing to promote better understanding of and action to address people's issues in a range of forestry and other natural resources management activities. Natural forest management and conservation of biological diversity are two important areas where the lessons learned to date from social forestry might make an important contribution. It will be the leaders and managers of these programs in the Forestry Department who ensure that these people's issues are addressed.

c) Much of the work under the project continues to be done by State Social Forestry Departments/Wings. More effort needs to be made to identify and promote efforts of existing institutions (e.g., Temple Committees, Mahila Mandals, Non-Governmental Organizations (NGOs)) or new local institutions to assist in the implementation of project activities. These efforts will be pursued in future USAID activities such as the DARE Project.

2. Technology Development and Application Issues

Technology plays an essential role in providing a substantial useable resource base that can be distributed to local people. Existing technologies are being improved, but a more problem-solving approach to application of existing technologies is required during the final two years of the project and even after external support ends. In other words, selection of a technology should be based on appropriateness for soil and site conditions, objectives for short and long term management, local need, market demand, and other factors. If, for example, the need is for fodder, then the spacing of tree seedlings should be enlarged; the primary management in this silvopastoral system should be for grasses while using trees for their other products and for their soil and moisture conservation properties.

3. Research and Studies Issues

In more general terms, research activities in the National Social Forestry Project are focused almost totally on technologies. While that is the comparative advantage of existing government research institutions and even the forestry programs in the universities that they have contracted to do studies, more effort needs to be expended through special studies to focus on social aspects of social forestry. This would require improved planning of the research agendas to include social science research. It would also require that training be provided to ensure that research designs are appropriate and that data collection and analysis techniques are of good quality.

Another research issue relates to its links with realities in the field. It would be important to ensure that researchers are required to work more closely with field foresters who face these realities daily. It would also be important for researchers to better understand the needs, constraints, and existing knowledge base among local people. This would provide for more realistic research efforts and would like enhance the flow of information from research to extension.

4. Technical Assistance, Training, and Extension

Technical assistance on a number of social science dimensions of the project would enhance implementation over the next two years. One opportunity for improving social science input is in the microplanning process. At this point, technical assistance in how to conduct the process is required. The Evaluation Team has proposed that two facilitators be hired (see 4 State Synthesis Report) to facilitate the development of microplans in the States of Himachal Pradesh and Uttar Pradesh. One member of each of the three the proposed teams will be a forester. The second member of each team should have the following qualifications and perform the following functions:

a) Qualifications: degree in social science and/or experience in community development; experience in social forestry related activities at the community level; knowledge and skills in community development, communications, and local participation

b) Functions: serve on facilitation team with forester; provide input into the planning process; provide training of foresters in specific districts in a "learning while doing" approach to microplanning; engage, encourage, enable, educate and empower local people in the microplanning process; contribute to the writing of microplans; work on conflict resolution and mediation of local disputes as appropriate; focus most specifically on the broad representation of community members in the definition of benefit distribution.

Training in the project needs continued support. To date, training programs have focused primarily on technology issues. Now, it needs to be more development-oriented. This unfortunately conflicts with the general educational system of most foresters in India (and in most other countries for that matter). Typically, the educational system focuses on species identification, cultural practices, technological concerns, and to some lesser degree on laws and economics. A new approach to training would have to continue to work within the constraints that the educational foundation poses. Support to training during the next two years might include support for a NGO to provide more of the development-focused knowledge, skills, and attitudes/value clarification that are required.

Extension efforts in the project can only benefit from a more people-oriented approach. Making sure that those who work on extension are known as Extension personnel rather than guards serves as an important starting point. Ensuring that researchers are better linked to the realities of the field will help shape research agenda that produce new knowledge that is of more immediate and clearer value to forestry extension personnel. More demonstration areas and on-farm trials will draw new information to the most local of levels directly.

7. Women's Involvement

Women's involvement, both through the private sector and the public sector, continues to be an issue for consideration in the NSFP. On a number of occasions during the field trips, we heard about the valuable role of women motivators in extension programs for forestry. We saw the contributions of a woman research scientist in Uttar Pradesh. We talked with representatives of several Mahila Mandals in Himachal Pradesh about their long term involvement in local development activities and their work more specifically on tree and fodder production for their communities. We listened to women in one village meeting tell of the various tree species that provide them with important products. Women are important resources. They should be tapped for their knowledge, their leadership, and the critical role they play at the household level in natural resources management. From general discussion, it appears that the role of women has been slightly enhanced in the Project since the Midterm Review. However, much remains to be done, and guidelines already exist (Molnar's Operational Guidelines for Forestry Projects) that can be applied.

Recommendations for Follow-up by USAID

The following are the main recommendations arising from this brief report. Drawing from the select social dimensions of the National Social Forestry Project identified and discussed in this technical report, USAID might consider the following as opportunities for follow-up support. These recommendations have been selected for their need, their technical feasibility to be carried out over the next two years, their "fit" with U.S. comparative advantages; their potential contributions to the effectiveness and sustainability of the project once external support ends; and requests by the World Bank and the States for continuing support.

Research and Studies:

1. Fund local institutions to conduct in-depth impact assessments, particularly of employment generation experiences (i.e., success and failure in various areas) with special attention to drawing out the policy implications.

2. Analyze the common property resource management experience in the project to date. Distinguish this experience from the experience with open access resource exploitation experience. Determine what the opportunities and constraints are to enhancing common property resource management capabilities in areas where social forestry activities are being undertaken. Particularly important is the need to identify incentives to individuals to participate and to manage resources and to identify means to distribute benefits to individuals to ensure their adherence to access controls that may be established by the community.

3. Support a Tree patta feasibility study in the State of Uttar Pradesh to determine the viability of developing tubewells or alternative systems to provide water for tree planting activities. Of particular importance are: cost effectiveness as well as the economic, social and environmental implications of various options.

4. To date, the tree tenure experimental schemes of the NSFP have tended to fail. Some knowledge exists about the reasons for these failures. However, because of the magnitude of landlessness and the fact that the landless use forests and trees for many of their most basic needs (including food), it is important to investigate alternative systems to providing tree tenure to these people. This has implications for longer term concerns about deforestation and about development of the overall forestry sector in India.

5. Lack of institutional incentives often results in the lack of public sector personal being motivated to encourage and enable local people to participate in decisionmaking. A brief study of the institutional incentives that currently exist and the options that are available to provide additional incentives would make an important contribution to the ensuring the sustainability of social forestry activities. It also has implications for forestry sector development since the people-resource interface is an increasing concern.

Technical assistance:

1. USAID should work with the World Bank in funding the teams of facilitators that are described in greater detail on pp. 13-14.

2. USAID should provide technical assistance to the GTZ/World Bank team that will be conducting an evaluation of various social forestry projects in India. USAID should particularly consider funding a social scientist to look at issues such as participatory planning, distribution of benefits, the role of women, and means of enhancing the role of NGOs in tree planting and natural resources management. The technical assister should have a doctorate in anthropology, sociology or a related social science. The individual should have considerable experience through research or project implementation working on forestry or related natural resources management activities. The individual should have experience in India and should be able to work with the GTZ funded forester and economist. The individual should also be able to work with Indian Research Associates who will be conducting the vast majority of the field research in both the design and analysis of the data collected. The individual will be available for a period of up to 3 person months of work. The output will be a systematic investigation of the various private and public forestry activities, focusing most particularly on their participatory dimensions.

3. Another area for technical assistance is in Research planning and management. Social science research is ad hoc at best and for the most part non-existent. Providing expertise from a social science research institute here in India, with proven experience in social science research planning and management would help provide the basis for a more systematic social science research agenda. Corollary to this is the need for assistance to future contracted investigators on research designs in the social sciences as well as in analysis and interpretation of research results. The assistance would enhance the overall quality of the studies being produced and would make a longer term contribution by building up the capacity of Indian institutions to undertake systematic and high quality research that addressess social dimensions of social forestry and other natural resources management activities. Additional assistance might be obtained through USAID's arrangement with the USDA's Forestry Support Program which will have a Social Forestry joining its staff in the near future.

Training:

1. The States and the World Bank have asked for assistance from USAID to provide support to the Project's on-going training programs. USAID might best play a role by ensuring more input from NGOs to training, especially related to microplanning, rapid rural appraisal, etc. This, along with a number of the other recommendations listed above could be accomplished through a single contract with multiple services provided by a single NGO or group of NGOs.

2. One part of this training would be a session for Research Scientists on ways to listen to and learn from farmers. This would be provided as part of an effort to enhance their ability to design research programs that address the realities of the farmers.

Conclusion

These recommendations address only selected aspects of the vast need for social science applications to social forestry today. The Midterm Review should still serve as a primary guide to thinking about social forestry more broadly in India. The challenges are still great. Poffenberger (1990:1) sets the stage for future needs:

> With the population of India approaching one billion, the productive and sustainable use of the country's natural resources are essential for enhancing human welfare and national development. Unfortunately, land, forest, and water resources are being depleted at a rapid rate. Over half of India's land, 175 million hectares, is seriously degraded. This degraded area has more than doubled since 1951, yet hundreds of millions of Indian villagers continue to depend on these lands for fuel, fodder, and minor forest products. At the current rate of vegetative over-exploitation, it is estimated that between 1.3 and 1.5 million hectares of forest land are denuded annually. Recent projects suggest demands for firewood and fodder will triple over the next 10 to 12 years, given growing consumption levels.

These challenges must be confronted with the integration of both biophysical solutions as well as social, economic and institutional ones.

REFERENCES

Association for Rural Development, Energy and Environment. 1990. Synopsis of a Study on Social Forestry and Rural Community in U.P. Lucknow: Association for Rural Development, Energy and Environment.

Ballabh, V. and others. 1990. An Integrated Strategy for Forest Management: Van Panchayats in Uttar Pradesh Hills. Workshop on Sustainable Forestry. New Delhi: Organized by Indian Environmental Society; sponsored by Ford Foundation.

Banerjee, A.K. 1990. personal communication

Dhiman, D.R. and Kiran Bhatia. 1990. Joint Forest Management Strategies in Himachal Pradesh. Workshop on Sustainable Forestry. Organized by Indian Environmental Society; Sponsored by Ford Foundation.

Leuschner, W. A. 1990. personal communication

Poffenberger, Mark. 1990. Joint Management of Forest Lands: Experiences from South Asia. New Delhi: Ford Foundation.

Saxena, N.C. 1987. Commons, Trees and the Poor in the Uttar Pradesh Hills. Social Forestry Network Paper 5f. London: ODI.

Sen, D. and P.K. Das. 1987. The Management of People's Participation in Community Forestry: Some Issues. Social Forestry Network Paper 4d. London: ODI.

Shingi, P.M. and others. 1986. Development of Social Forestry in India. CMA Monography 110. New Delhi: Oxford and IBH Publishing Co.

USAID. 1985. National Social Forestry Project Paper. 2 vols. New Delhi: USAID.

World Bank/USAID. 1988. India National Social Forestry Project: MidTerm Review. New Delhi: USAID.

_____. 1990. India Social Forestry Project: Himachal Pradesh Subproject Aide Memoires. New Delhi: World Bank/USAID.

_____. 1990. India National Social Forestry Project: Uttar Pradesh Subproject Aide Memoires. New Delhi: World Bank/USAID.

ECONOMICS ISSUES TECHNICAL REPORT

by William A. Leuschner

This appendix follows the TOR's for the Mission Economist and addresses each of the four main issues; Seedling Pricing, Marketing Structure, Private Forestry BCA, and Benefit Distribution. Sections on Microplanning and Research are also added.

Seedling Pricing

A demand curve indicates that the higher the price, the lower the quantity of a good or service will be demanded. Thus, the greatest quantity of seedlings will be taken up if the seedlings are given away free, all other things being equal. A lesser quantity will be taken if a price is charged and the higher the price, the lesser the quantity.

The decrease in the quantity demanded depends on the elasticity of demand. Elasticity of demand requires specification of the demand function for calculation, an unlikely prospect in the current context. However, demand is usually less elastic for those items which are a small part of the total budget or which are a small part of total inputs to a productive process. Thus, demand for seedlings MAY be relatively inelastic.

The price system signals producers what to produce via higher or lower prices. The price for a certain species will increase if demand for it increases (shifts out) for a given level of supply. The nursery man will find that people are willing to pay more for the popular species (or less for an unpopular species) and hence will plant more (or less) of that species next year in the hope of higher profit. Thus, the market signals which species are more or less popular and adjustments are made by the nurseryman over time. The price system does, however, introduce the element of risk because the nurseryman must correctly assess the popular and unpopular species or eventually go out of business.

There is a conventional wisdom in the development community that people will take better care of seedlings which they have purchased. Certainly, pricing seedlings will discourage people from taking more than they need, perhaps discarding some or all along the trail if the load gets heavy, and will provide an incentive to follow instructions and take care during planting. However, one may question whether pricing will cause better stewardship throughout the rotation because the major costs will probably be the labor invested in planting and previous tending and any opportunity costs associated with using land for tree growing.

Most projects, including this one, have an objective of establishing private nurseries. The scheme is to establish a small private sector nursery to provide seedlings to persons living within walking or transport distance of the nursery. A price must be charged for seedlings in this case or the nursery will go bankrupt. It would seem, then, that pricing is in order but the question may be raised as to what price should be used.

WHAT PRICE

The question of what price depends in part on project objectives. As stated, the higher the price, the fewer seedlings will be taken, all other things being equal. Thus, a project whose objective is to maximize the number of surviving trees planted would strive to set a price at the minimum level necessary to maximize tree stewardship.

Pricing Study

A pricing study has been performed for the State of Gujarat by Ecological Systems (?). A copy of the first 103 pages of this study is at Bank Headquarters in Delhi and our copy is expected soon. One part of the study asked what price farmers would pay for seedlings. About 76 percent said they would pay 10 paise or less per seedling, none would pay greater than 20 paise. Ecological Systems thus recommends seedling pricing and at the 10 paise level.

There are at least two problems with this conclusion. First, this part of the study is based on survey research. Five hundred villagers were interviewed to provide data. The five hundred were chosen by dividing the State into four zones and assigning 125 respondents to each zone. In each zone, a SINGLE division was chosen and in each division, a SINGLE tuluka was chosen. Then, five villages were chosen and villagers were interviewed in order of choice until 125 respondents were obtained. All choices down to the village were random. Three zones were represented by two villages and one by three villages, all in the same taluka.

The sample is unbiased but unlikely to be very representative of the zone or the State because to few villages were visited. Technically, the sample is most likely not reliable -- i.e. the same study repeated again with a different nine villages would be unlikely to produce the same results.

Second, a few tables presented State level estimates. These estimates were a simple unweighted mean of the zone (two-village) results. Weighting should have been done but apparently was not. Weighting may not have made a substantial difference at the State level but it does raise the question whether responses at the village level were weighted or whether each village was given equal weight.

A third problem might exist. Respondents may have been using strategies and understating the prices they would pay for seedlings if they thought study results would be used in the future to place prices on seedlings. This kind of respondent bias is commonly considered in survey research work.

Thus, I believe this part of the pricing study should be considered a single observation, similar to a single case study. I do not recommend making State-wide policy decisions using study results as the justification for those decisions. These results are indicative but not definitive.

Private Nurseries

The existence of private nurseries in the project more or less predetermines that seedlings must be average cost priced. Private nurseries, which are not subsidized, MUST receive their average cost of seedling sold (including margin for profit and risk) or they will go out of business. Private nurseries receiving a price less than average cost of seedlings sold are not sustainable without a subsidy. Further, seedlings produced in State run nurseries must carry the same price if those State nurseries are within the same geographical market or people will substitute lower cost State seedlings for Private seedlings. State seedlings might still be substituted for Private if there are qualitative or species differences.

As an aside, several issues could be raised about the sustainability of private nurseries. These issues are not discussed fully but are only mentioned here. They are:

1. Quality control of seedlings (e.g. adequate root system and size).

2 Quality control of seeds (e.g. are seeds from phenotypically better or "plus" trees?).

3. Is demand within walking (transporting) distance sufficient to support a nursery.

   a. It seems unlikely a nursery will provide a living for a family. It may provide some extra cash.

4. Is demand sufficient over time? Demand should decrease to replacement planting (when not coppiced) as the area is "planted - up". Is the nursery sustainable over the long term?

5. Can public nurseries produce lower cost seedlings due to economies of scale or more efficient management?

CONCLUSIONS

1. Free seedlings may be a good idea during the "demonstration" phase of a project because the greatest number are distributed thereby increasing the demonstration effect. Further, people may be unknowledgeable about tree culture and thus concerned about the risk. Subsidizing the people's investment, via free seedlings, may cause those on the margin to make the investment and thus the demonstration.

   a. A merit want argument might also be made for distribution to disadvantaged groups which otherwise would not be able to afford to purchase seedlings.

2. Arguments about better care for purchased seedlings are personally persuasive thus it would seem that seedlings should be priced after the a project's demonstration period.

   a. Seedlings should be priced to decrease waste and increase the likelihood of good planting.

3. Seedlings must be priced at least at the average cost of seedlings sold, including a margin for profit and risk, if private nurseries are to exist.

   a. Prices in Public sector nurseries cannot undercut private nursery prices.

   b. Buy-backs of unsold seedlings from the private sector nurseries by the SFD's will also defeat using prices to allocate resources.

Marketing

This section examines the prospects of marketing forest products produced under NSFP. The discussion is circumscribed because, in the broadest sense, goods are substitutable and a thorough analysis would require considering this substitution, e.g. lp gas for fuelwood. This is clearly beyond the scope of work for this consultancy.

Similarly, Operations Research Group (ORG) (1990) presents a chapter titled Supply and Demand Scenario. "Supply", even in the non-technical sense, requires an inventory of standing trees. "Demand" analysis also requires large data bases, consideration of substitutes and elasticities, and usually an econometric analysis. This too ORG (1990) did not perform such an analysis. Their work will be discussed briefly below.

This section will contain a discussion of marketing in general, the marketing structure related by respondents in Gujarat and Rajasthan, and a review of ORG (1990).

GENERAL

Marketing is used in an economic rather than a business sense. That is, the structure of markets and their usefulness to the people are examined rather than methods of advertising and promoting an individual organization's production.

Markets are important if the price system is used to allocate inputs and outputs. The market is where supply and demand forces meet and a price is set by their interactions. The price set in turn signals producers whether to produce more or for consumers to consume less. The price system is an imperfect allocator and interventions are often necessary. This is particularly true in less well developed and barter economies.

Markets are still considered important, despite their imperfections. Their importance to NSFP varies depending on whether program participants are growing forest products for their personal consumption, a cash crop, or some mixture of the two. Markets become more important the greater the proportion of cash crop. The team's firm impression in Gujarat was that most people were growing for cash, thus markets are most important there. Persons in Rajasthan were tilted toward personal consumption, although some cash cropping was present, thus markets are less important there.

Growing forest products for resale is an important part of NSFP. It is the mechanism through which jobs are created and cash income is shifted between classes. For example, in Gujarat we were shown small, village level fuelwood merchants who, we were told, have come into business only since local fuelwood production increased. Thus, income is created for both the fuelwood merchant and the farmer and is also shifted to them. In addition, additional employment is created for the wood merchant and whoever harvests and transports the fuelwood to the village.

MARKET STRUCTURES

"Stumpage" is a U.S. forestry term meaning trees standing in the woods on the stump. The "stumpage price" is the price paid for the right to harvest the tree from the stump, transport, and sell it again (or perhaps process it further before resale). The stumpage market is the market of primary interest because that is the market where returns accrue from growing the tree. The stumpage price is the price used to value wood in both financial and economic analysis. A farmer may harvest a tree, transport it to town, and sell it there. The price received in town is not the value of the wood because it contains the value added by the farmer by harvest and transport. The stumpage price concept is used to value other forest products, such as fodder or grasses, which are sold.

The simplest case is a market for one homogeneous product. The market for forest products is more complex because it often includes multiple products as when a plantation is sold which includes fuelwood, poles, and sawtimber. Further, markets and prices change for different products (e.g. different species or grasses vs. wood) and different quality. These cannot all be considered in this report and are some of the causes of variations in price.

1. The simplest case is where an individual owns one or more trees and the buyer comes to the individual and purchases the tree where it stands. The price paid is the stumpage price. Individual trees are often sold and the "price per tree" is negotiated.

   a. The buyer may be a "dealer" who buys trees for his own account, harvests and transports them to his woodyard, and then resells the products (fuelwood, poles, logs) to final consumers or manufacturing concerns (sawmills, furniture plants, export, etc.).

   b. The buyer may be the mill owner who buys and harvests directly for his own account. Most of this wood is used in manufacture but some which is otherwise waste is resold.

Respondents and ORG (1990) report stumpage sale is probably the currently most frequent marketing strategy based on number of sales, but not necessarily volume of wood sold. Wood growers complain that dealers and other buyers offer them an unfair, low price. This may be true if only one or two buyers visit an area as they then have oligopsonistic power in the market. However, the lower price might also reflect higher buying costs, viz. the buyer must visit, harvest and transport from many scattered locations for a given quantity of wood as opposed to bidding for the entire lot at a State Forest Department woodyard.

2. The farmer may alternatively harvest the forest products, or hire people to harvest them for him, and sell directly to the buyer. The buyer may be:

   a. The consumer, e.g. in selling fuelwood or poles for farm home construction.

   b. The dealer, who then sells to the consumer.

   c. The manufacturer who then processes the wood further and sells a finished product to the ultimate consumer e.g. lumber to a homebuilder.

Respondents report that larger farmers and wood growers use this marketing method. The method gives the wood grower some flexibility and power in the market because he may sell to one of several buyers, whoever offers the highest net price.

3. Trees on communal property are often sold on the stump at public auction. The ability to hold a public auction may reflect economies of scale from block plantations.

The preceding discussion is cast in the light of the single private wood grower selling wood. However, it is equally applicable to all forest products (wood, fodder, grasses, etc.) and to communal as well as private owners.

ORG MARKETING STUDY

Operations Research Group (ORG) of Baroda (Vododara) performed a marketing study in Gujarat for USAID, New Delhi. The study focused on four species or species groups, Eucalyptus species, Casurina species, Acacia nilotica, and Leucaena leucocephala. Data were collected from 1280 wood growers. Wood dealers, wood using industries, and cooperatives societies were also visited.

Results

The report is 119 pages long. It is impossible to summarize it briefly or to relate all important points. This section contains only those results were seemed particularly relevant to NSFP.

1. Each taluka town surveyed had a wood market. (p. 7)¶

2. Woods labor has cooperative societies (unions?) for "... assurance of fair wage and share in the profits ..." (pp.8-11)¶

3. About 85% of trees sold were sold standing for a lumpsum. About 66% of trees for self consumption and 15% of trees for resale were harvested by the grower. (pp.13-14)

4. Share of market by species and district, some wholesale (harvested ?) prices, and import quantity summaries are presented. (pp.7-35)

5. Two case studies show 19% and 22% profit to dealer. However, it is not clear that all costs were included or that average costs were not applied to specific prices. (pp.36-40)

6 NSFP species are lower priced substitutes for other species previously used in construction and manufacturing. They have substituted these other species out of the market. A use by use assessment (e.g. construction, bobbins, boat industry, cable drums, and packing boxes) is given. (pp.41-53)

7. Several forestry cooperative organizations are outlined (pp.54-80). Nasik District Coop (pp.54-67) is the most complete, providing full service from seedlings through technical assistance to harvesting and marketing. Others provide more limited services and market standing trees (pp.67-68, 73-80).

8. Ninety nine percent of wood growers believed a cooperative society would help, 28% that woodyards at agricultural marketing yards would help, and only 8% that actions by a government department would help. (p.99)

Demand and Supply Scenario

Chapter V (pp.81-93) contains this analysis. The discussion centers on the four species. The "demand" analysis looks only at current consumption levels of a few forest products viz. poles, truck bodies, a newsprint plant which might be built, and fuelwood reported in the Gujarat Wood Balance Study - 1984. No attempt is made to examine all major consumption categories nor are any general economic variables, such as population, production, or GNP, used to explain current use levels. No projections are made to future years.

The "supply" analysis also focuses on the four species. It reports that some wood growers will not replant due to unfulfilled profitability expectations, fluctuating prices, and other reasons. No inventory of existing wood, in or out of NSFP, has been made nor have any economic variables been used to explain current levels of planting. No projections are made for future years.

The demand and supply scenario provides only a limited indication of what the future might hold but is suspect because it focuses on NSFP tree species rather than the entire forestry sector. The substitutability of one wood species for another must be considered for any meaningful analysis. Perhaps more importantly, no economic analyses are present nor is there any inventory of standing timber.

The lack of a more thorough analysis is completely understandable given the limited scope of the marketing study. A thorough forestry sector analysis is costly, time consuming, and data demanding. The preceding comments are meant to allow the reader to judge the usefulness of the conclusions rather than to criticize the authors.

CONCLUSIONS

1. Reliance on markets and prices will bring fluctuations in price. This is how the market signals that resources should be reallocated. Programs which support prices at a given level will defeat the very purpose of using markets.

   a. Price support programs for wood products are not recommended for this reason.

2. Knowledge of the market is important if prices are to work. Small wood growers may be uninformed. The government can help by informing them of current stumpage prices and advising them when current markets are depressed.

   a. A stumpage price reporting system might be built into current M&E units. Existing forest officers might report these prices to small wood growers as part of their normal duties.

   b. Wood may be stored on the stump. Wood growers should be advised that they can withhold wood during depressed markets and sell another year IF the grower thinks prices will rise.

3. Markets are most important where wood is a cash crop rather than used for home consumption. Markets have developed as supply has increased, as evidenced in Gujarat. However, this may not always happen if demand is insufficient in the geographical region where the wood is grown.

   a. Demand for wood is usually derived from its use in making other products, such as lumber or poles. Thus, the price for the other products and the cost of their manufacture determine the price that can be paid for wood delivered at the manufacturing plant.

b. Markets for wood will not develop if the trees are located too far from the manufacturing plants (or final consumption) because the transportation cost may exceed the value of the wood in manufacture.

c. Strong government action to artificially create markets will again defeat the purpose of relying on a price system. However, actions to inform potential wood buyers of available wood is appropriate and will enhance a market system.

4. Formation of cooperative societies should be considered where timber inventories and wood demand are adequate.

a. Cooperatives will increase the sellers power in the market and help balance oligopsonistic forces which may exist.

b. Cooperatives can effect some scale economies and thus allow buyers to offer a higher price.

c. Cooperatives can allow the wood grower to capture some of the value added in harvest and transport, IF they are included in the coop activities.

d. Government may appropriately foster creation of cooperatives. However, they should be self-supporting once they are established.

5. Some government rules, such as transportation and cutting restrictions, interfere with the free flow of goods and services in response to prices.

a. These rules defeat the purpose of marketing and are usually better rescinded.

b. Most officials with whom we spoke supported the concept of removing any existing restrictions.

Private Forestry BCA

Benefit cost analysis (BCA) is a general term for a discounted, cash flow analysis of a potential investment. "Discounted" means the present value is calculated using an alternative rate of return, 10% (following the PP) in this case. "Cash flow" means a cash rather than an accrual accounting basis is used.

BCA is used to make financial and economic analyses. Financial analyses examine the investment from the investor's perspective, e.g. the farmer or the SFD. Economic analyses examine the investment from a social perspective, e.g. the contribution to the overall welfare of the citizens of India.

Several BCA's have been made for NSFP. I have been able to examine a few and have seen only the covers of others. The degree of specificity varies from study to study. Studies include:

* World Bank study in 1979
* Project Paper, India National Social Forestry Project, 1985
* Pinto, et al. 1984 (cited below)
* NABRAD (undated)

Further, each state participating in NSFP surely prepared a plan similar to Pinto, et al. (1984) containing detailed BCA's of the various proposed planting models. Other documents, cited in Annex I below, contain only cost estimates.

Many data exist in these studies however they are difficult to use because:

1. They are scattered over many different sources.

2. Estimates for the same inputs can be widely divergent (e.g. mandays to dig pits, Annex I) and are unreconciled.

3. Some operational data are not summarized in useful form (e.g. Production and Distribution Details of the Harvested Village Woodlots, GOG internal report).

4. Some needed variables seem not to be estimated at all, most particularly stumpage prices and yield functions for wood, grasses, and other benefits.

5. New data (other than multiplying by a higher wage rate) are not available nor does there appear to be a program underway to obtain them or improve old data other than some yield studies which have been started.

Scattered and inconsistent data make comparisons between states and between different planting models problematical. Differences which appear (or do not appear) to exist may be caused by different data sources rather than the biological differences they should reflect. It is simply difficult to tell why there are differences in investment returns under the existing system.

A similar problem is that an ever expanding number of planting models are being formulated. These are in response to peoples' requests and efforts to increase species diversity, soil/moisture conditions, etc. The relative financial and economic desirability of these models cannot be assessed unless consistent inputs and outputs are used.

BENEFIT COST ANALYSES

Given the data problems summarized immediately above, insufficient time was available to access all the scattered studies, to reconcile differences between them, or to attempt to even roughly estimate missing data. Thus, any comprehensive financial analysis of private forestry investment alternatives was impossible.

However, Annex I contains a financial analysis of rainfed and irrigated Eucalyptus species plantations. Data sources, differences in sources, assumption necessary to use these data are also in Annex I. The interested reader is directed to the discussion of how the variables in the financial analyses were estimated. The discussion provides examples of some of the problems discussed above and will show in part why the following results show be considered as being only roughly indicative. The analyses show:

Plantation	Present Value-10%	Real Financial Rate of Return
Rainfed	Rs -8944	-5.9%
Irrigated	Rs -5249	+2.6%

These results are substanitally lower than shown in previous financial analyses. There are several reasons for this. First, a land rent of Rs 1000/annum was included to recognize the opportunity cost of taking plantation land out of alternative production. This opportunity cost should ALWAYS be included, at the actual level, except in those cases where the land is truely wasteland and has absolutely no alternative use. In this case, the land rent is zero and the rainfed and irriagted figures, respectively, are: Rs -3609, +3.3% and Rs -1458, 7.9%. These returns seem quite reasonable, considering they are real returns. That is, inflation must be added to them to compare them to current market rates, such as those found in newspapers.

A second reason the rates are low is that a Eucalyptus pole stumpage price of Rs 20 per tree was used. Lack of yield information by tree size and corresponding stumpage prices made this stumpage price applicable. Further, it is not an unreasonable assumption for block plantation grown trees. The switching stumpage price is that price which would make the investment have a financial rate of return equal 10% if all other variable values remain the same. These prices are Rs 49.23/tree for rainfed plantations and Rs 24.88/tree for the irrigated plantation.

A third reason the rates are low is that the survival rates of 41% and 52% for rainfed and irrigated plantations, respectively, reported in the 1984 GOG Evaluation Report were used to calculate the final number of trees harvested. These are smaller survival rates than are used in previous analyses. The switching survival rate, where the investment will return 10%, is 65% for both planations.

Other variable values may contribute to the lower than usual returns. The interested reader is again referred to Annex I for the details. However, the important point here is that the financial and economic guidelines depend on what the true values are for these and other key variables. These true values are unknown with any degree of certainty. The means to estimate them exists within the organizations created by NSFP, such as the M&E or research units, if technical assistance, perhaps some training, and resources to perform the work are made available.

CONCLUSIONS

1. A concerted effort should be made within each state to gather in one place a consistent set of inputs and outputs for use in financial and economic analyses.

   a. Inputs and outputs should be stated in quantity terms (e.g. mandays or metric tons) because these are unlikely to change rapidly with time. They will change with technological changes, which are much slower.

   b. Yield studies are particularly important (see Conclusions in Research below).

   c. Input and output prices should be updated frequently, particularly when the inflation rate is high.¶

   d. Stumpage price estimates are not readily available. Some prices are collected for log sales at woodyards. These must have the value added by harvesting and transport subtracted out to obtain a stumpage price.

i. Individual pieces are sold in some cases. These need to be translated to a per tree or per hectare of plantation basis to be useful for BCA.

2. Data developed by individual states should be compared and large difference reconciled.

   a. Perhaps a series of workshops would be useful in this regard.

3. A full time, Ph.D. level forest economist would greatly assist in providing technical assistance in implementing an improved data program. Terms of reference for such a position are in Annex II.

Benefits Distribution

The distribution of benefits will be examined for each state visited for the major tree planting categories. Only major categories will be examined because distribution practices are usually determined by land ownership, viz. private, communal, and state.

FARM FORESTRY

Farm forestry is perhaps the most loosely controlled of the programs although M&E units, as directed by the "Red Book", audit the program. Stated simply, farmers obtain seedlings from either state or private nurseries and plant them on their privately owned land. Technical assistance in planting and stewardship may be available from the nurseryman, forest officer, or extension officer. The plantings may be block, strip, agro-forestry, homestead, or whatever the farmer desires. Seedlings have been given free in the past but prices are or soon will be charged (see Seedling Pricing above). There is no restriction on receiving seedlings by caste or sex.

The landowner receives the full benefit of the planting because the land, trees, and other inputs are all his. The distribution of the benefits within the farm family is left to existing custom. No special provision is made for distribution by sex or age but all may benefit from a general improvement of family income.

The practices are essentially the same in both states.

Gujarat

Two studies were available reporting seedling distribution by size of farmer. The pricing study mentioned above (unavailable at this writing) reported that the following mean distribution of seedlings occurred over the last nine years:

Percent No. Seed. Distributed	Farmer Size¶
43	Marginal
32	Small
25	Large
100	

The second study is the Evaluation Report - Farm Forestry (undated) by the Forest Department, Government of Gujarat. This report evaluated the first phase of NSFP (1980-1984) and the results are presumably included in the above figures. This study found:

Percent No. Seed. Distributed	Percent No. Farmer Distributed	Farmer Size
28	52	Marginal
27	25	Small
23	45	Large
100	100	

The preceding studies indicate that in Gujarat there is a good distribution of seedlings across all categories of farmers. These findings support the statement that seedlings are given indiscriminately.

A minor point in reporting results became evident. Hectares of trees in farm forests are reported in several documents. The figure is simply the number of seedlings distributed divided by 1500 (an estimate of number of seedlings per ha.). However, the above cited evaluation report found that 1330/3600 (36.9%) farmers selected for survey "... had not planted the seedlings or they were not available due to migration, death, etc. (or) ... collection of seedlings in false names." (p.4). The study also found an overall survival rate of plantings of 36% (p.16).

Now, assume that half the unlocated farmers (18%) did not successfully establish plantations. Then, for each 1500 seedlings given:

1500 seedlings x (1-.18) no plantations x .36 survival rate =

442.8 surviving seedlings / 1500 seedlings per ha. = .295 ha.

Thus, based on available dated, the current reporting practice overstates the hectares of farm forestry by over a factor of 3. In addition, the denominator of 1500 may be questioned. Rainfed plantations are usually planted 2.5 x 2.5 (1600 seedlings per ha.) or 2 x 2 (2500 seedlings per ha.). Irrigated plantations are planted 1 x 3 (3333 seedlings per ha.). Thus, the denominator (1500) is ambiguous at best.

It is suggested that the practice in Rajasthan of simply reporting number of seedlings taken up is preferable. Alternatively, the number of seedlings taken up should be adjusted for those surviving and reported as "Hectare Equivalents of Rainfed Plantation." Otherwise, there is a danger that readers will mistakenly believe the reported farm forestry hectares actually exist in block plantations on the ground.

Rajasthan

There was insufficient time to investigate evaluation reports, seedling distribution by farmer category, and other items discussed in the preceding section.

Conclusions

1. Benefits from farm forestry plantations are adequately distributed because they accrue to the farm family establishing the plantings.

   a. Benefits focused on females and children were not evident and might be investigated in the future to see if they conform with project desires.

2. Available data indicate seedlings are well distributed over different sized farmers, castes, etc.

3. Program results should be reported simply as number of seedlings taken up rather than converted to hectares.

PRIVATE WASTELAND PLANTATIONS

This program exists only i Gujarat and is open only to caste and tribal persons. The farmer sets aside 0.25 to 1.0 ha. of privately owned wasteland for a plantation. The SFD consults the farmer about species and management and then pays from its own funds to establish the plantation. The farmer may be hired for some of this work. The SFD then pays the farmer Rs 250/annum/ha. for each year that plantation survival is greater than 70% during the first five years of plantation life. (An improved incentive scheme is being considered.) The farmer is then free to manage the plantation in any manner he sees fit although SFD presumably still gives technical assistance. All intermediate and final harvest benefits flow to the farmer for distribution as he sees fit.

Conclusions

1. This program is desirable in that it specifically targets disadvantaged groups. Females and special age groups are not targeted although they presumably benefit as members of the farm family.

2. Benefit distribution seems more than equitable because the farmer is paid Rs 250/a. and receives all benefits from the plantation.

   a. GOG is subsidizing investment in plantations thereby causing more planting than would be expected with strict reliance on a price system. This may be good or bad, depending on objectives.

3. The program may not be sustainable because the farmer is free to harvest any time after five years and make any use of the land thereafter.

   a. Sustainability seems a greater issue here than in Farm Forestry because SFD funds, rather than farmer funds, are used to establish the plantation.

COMMUNITY WOODLOTS

In both states, Panchyat owned (communal) land is dedicated to plantations. These may be rainfed or irrigated and fuelwood or fodder. The people are consulted about which species they wish to plant, often via the Village Panchyat which usually has female members. The State Forest Department (SFD) pays for and supervises plantation establishment. Local people often are hired to establish the plantation thereby sharing in temporary employment.

Gujarat

A maximum of 4 ha. may be put in any one plantation. However, a village may have more that one plantation.

Respondents reported that all persons were free to take intermediate products (grasses, leaves, twigs, etc.) on a first come, first served basis. No restrictions e.g. by caste, sex, or age, were placed. The final harvest is distributed by:

1. All wood less than 20 cm girth is given free to villagers and harvest laborers.

2. Villagers may purchase for personal use all wood equal to and greater than 20 cm girth at 60% of the market price. The SFD informs villagers of the market price.

3. Any remaining wood is sold at public auction.

   a. 75% of the proceeds go to the Panchyat to be used for the public good in any manner it deems desirable.

   b. 25% of the proceeds are put in a joint bank account for the Panchyat and the forest officer. These funds must be used for forestry purposes, e.g. re-establishing the harvested plantation.

Rajasthan

A minimum plantation of 15 ha. must be given. This may reflect the more rigorous growing conditions in Rajasthan. A written agreement is entered with the Panchyat whereby the control of land is turned over to the SFD for management and the SFD agrees to turn the land back to the Panchyat after five years. The Panchyat is consulted about desired species, etc. Respondents again reported that anyone was free to take intermediate products on a first come basis. The Panchyat decides on management (and presumably rotation age) after being given control. The SFD reports some resistance to taking control back if a Sar Panch is politically unpopular. When the plantation is sold, the Panchyat get 1/3 of the proceeds to use for public benefit in any way it sees fit and the SFD takes 2/3 of the proceeds which are placed in the general treasury. SFD is thinking of reversing the shares.

Conclusions

1. Intermediate flows are nominally well distributed and there was not evidence in either state to suggest this was not the case.

   a. However, speculatively, it may be possible local social restrictions or customs prevent some persons from availing themselves of intermediate products.

2. Harvest of intermediate flows should be written into a management plan for the plantation (see Microplanning below).

   a. A five year old A. nicolita plantation in Rajasthan showed no sign of pruning, thinning, or removal of double stems. The Sar Panch reported "waiting patiently" for fuelwood. These benefits could have flowed if they had been planned.

   b. The Rajasthan written agreement switching control of the plantation seems to create an "ours/theirs" dichotomy which is not conducive to harvesting intermediate wood products.

   c. Similar problems were NOT evident in Gujarat.

3. The Gujarat distribution of final harvest benefits seems most generous and likely to reach most of the people.

   a. Presumably all persons in the Panchyat will benefit from the 75% share although there is no special provision for caste or females.

   b. The 25% joint account also benefits the people in general and removes some uncertainty about sustainability because restricted funds are available for plantation re-establishment.

4. The Rajasthan distribution of final benefits seems quite restricted.

   a. It is understandable that the SFD desires to recoup some of its investment in the plantation. However, the current division (which SFD is considering changing) seems to remove some incentive from the people.

   b. There appears to be no incentive for plantation sustainability. Perhaps some device could be implemented.

SOCIAL SECURITY/HOUSEHOLD FORESTRY

Both states have programs focused on the landless and/or tribals. Essentially, the programs provide a livelihood for these person by involving them in forestry. Details of the programs differ and are:

Gujarat

Persons are assigned a tract of state land in a forested area. They are responsible for 15 tracts of land 1.5 ha. in size. Each year a new 1.5 ha. tract is planted by the person. The person is also responsible for stewardship on the previously planted tracts. Each tract is harvested by the SFD at the end of a 15 year rotation. The process continues on a classical area control, even aged management, sustained yield basis. The person receives all intermediate products plus Rs 600/month. The SFD receives all benefits from the final harvest.

Rajasthan

Persons are assigned a 2.5 ha. tract of state land. Each year they are provided 800 seedlings plus grass and tree seeds and must plant 0.5 ha. The person receives Rs. 600/annum, all intermediate benefit flows, and the land becomes his at the end of five years. The person may then manage the land as he sees fitting, including clearcut of the plantations subject to existing laws.

Conclusions

1. There are both strengths and weaknesses in both programs.

2. Both are good because they target underpriveledged members of society.

3. The Gujarat plan is strong because it:

   a. Provides a substantial annual income (based on average SFD regeneration cost), particularly when augmented with intermediate benefits.

   b. Plans for sustainability.

   c. But, it provides only employment.

4. The Rajasthan plan is strong because it:

   a. Eventually provides land for the landless.

   b. But, does not plan for sustainability.

5. It would seem both programs should be monitored and perhaps an even stronger program can be developed by merging the successful features of the two.

STRIP PLANTATIONS

Strip plantations are established in both states on state and communal lands along roadways, railroads, canals, and the like. The people are consulted about desired species, etc. as in other programs. Plantations are established at SFD cost although local people may be hired for plantation establishment. Communal strip plantation benefits are distributed as in Communal Woodlots, above. State land plantation intermediate benefits are open to all (although permits from SFD are required in Rajasthan) and final harvest benefits go to the SFD.

Conclusions

1. People benefit from the intermediate flows in all cases and from the final harvest in the case of communal strip plantations.

2. The nation in general benefits from increased harvest on state lands but direct flows to local persons, except perhaps for temporary job creation, do not exist.

3. There is no specific focusing of benefits for females, underprivileged groups, or special age groups.

4. There is no clear evidence of sustainability other than management by SFD.

REHABILITATION OF DEGRADED FORESTS

My notes are sketchy for this program in both states. Thus the following statements are tentative. This program rehabilitates degraded forests on state owned land. My impression is that the people are consulted about which species are desirable and that they have access, as described above, to intermediate product flows. The SFD pays full cost for all rehabilitation and takes all the final harvest benefits.

Conclusions

1. These conclusions are based on the sketchy notes and an incomplete understanding of the program. Interpret them accordingly.

2. People benefit from intermediate flows, externalities such as prevented erosion or increased water supply, but not from the final harvest.

   a. The program may be sound but its "social" benefits are unclear, other than those listed immediately above.

3. The is no specific focusing of benefits for females, underprivileged groups, or special age groups.

4. There is no clear evidence of sustainability other than management by SFD.

Microplanning

Planning encompasses a wide range of topics because it is integrative. Microplanning is the NSFP procedure for planning at the village level. Our discussions and observations in the field have therefore led to a somewhat eclectic set of observations, many of them overlapping into other areas. These are presented here as a matter of expositional convenience.

1. Microplanning observed in both states was at a beginning stage. The SFD's are to be congratulated for the fine jobs they have done in establishing this foundation. Observations and comments made here are often in the spirit of making a good beginning even better. It is also realized that recommendations which might stem from these comments may well take longer than a two year extension period to implement.

2. Data collection relied on some secondary sources. However, in Gujarat sincere attempts were made to contact the people and obtain their opinions, even to the extent of visiting each house and recording a household opinion about wood products desires.

   a. There may be room for sensitization training about the need to seek people's participation in planning.

   b. There may also be need for training in survey research and interviewing techniques. These skills are not immediately known by everyone and it is important to elicit unbiased answers from participants.

3. Microplanning observed in the field emphasized data collection, including the people's opinion on species and management desired. However, there seemed to be a lack of holistic analysis of these data.

   a. Field personnel seemed to gather village-wide data but then implement plans on individual desires, rather than integrating them at the village level.

      i. This, of course, raises a question of individual desires versus communal needs.

   b. Integrative planning techniques may be an area where TA and training would be helpful.

4. Micro plans seemed to emphasize establishing the plantings. However, there seemed no plans for management throughout the life of the planting. It would seem useful if micro plans were expanded to specifically include:

   a. Type of management. State simply whether even- or unenven-aged management is planned.

b. Intermediate benefit flows. Intermediate flow plans are particularly needed for communal land plantings. They should include scheduled plans (subject to revision if biologically or economically unsound at time of implementation) for pruning, thinning, and lopping.

c. Harvesting cut. The type of cut will be determined by the type of management and the species present. Specify which silvicultural harvesting technique will be used, e.g. clear cut, strip clear cut, group selection, selection.

d. Regeneration plans. These are determined simultaneously with the harvest cut and whether or not the same species are planned for the second rotation. The planned party responsible for implementing regeneration and the source of funds to pay for it should also be made clear.

5. Recommendations are made to landowners about species and block plantation spacings. However, other inquiries indicate lack of basic growth and yield studies upon which to base these recommendations.

a. A systematic growth and yield research program covering major species and most likely spacing would seem of the highest priority. These studies can indicate preferred species/spacing combinations if site can be adequately incorporated in the research.

b. Such a program will take many years to complete. Decision will have to continue to be made based on best knowledge in the interim. However, best knowledge will never be improved if a program is not started.

6. Current recommendations are being made based on analyses of individual plantations models. The models are based on a single hectare plantation and different tree plantation models are compared to each other.

a. This approach, while sound and widely used, does not consider the position of the individual farm. A particular recommendation may be optimal in one farm and suboptimal in another, depending on the particular configuration of the farm.

b. Thought might be given to a planning system which considers the configuration of the farm for which the recommendation is being made.

c. Implementation would require a high degree of sophistication and would take many years and much training and TA. This is definitely a thought for the more distant future.

7. GIS is often mentioned in relation to planning. A very worthwhile meeting was held with the faculty at the Indian Institute of Management (IIM) in Ahmedabad during which GIS was discussed.

a. IIM is quite interested in GIS however their planning is done at the district rather than the village level. The level of resolution of their GIS data is for 1/50,000 maps. Thus, on a map:

1 cm = 500 m; 1 square cm = 25.00 ha.
1 mm = 50 m; 1 square mm = 00.25 ha.

b. This degree of resolution is not fine enough to be useful for microplanning. Further, the minimum area covered for each variable in likely to be much larger than one hectare. Thus, the maps and conclusions will be innaccurate for smaller areas used in microplanning.

c. In addition, GIS systems are costly to begin and costly to maintain as variables' values change. Further, many of the calculations done on GIS can also be done using statistical programs with the cost of a GIS.

d. It therefore appears that GIS is not appropriate for microplanning.

Research

I was requested to review the research program established in Rajasthan under the NSFP. Individual subprograms have been or are being established in:

* Seed selection, testing, and certification.
* Five research stations, one in each agro-climatic zone.
* A soil and water testing laboratory.
* Agro-forestry research in root competition, shadow effect, and crop compatibility.
* Growth and yield data collection.
* Contractual research.

Members of the Research Unit also requested that I make specific recommendations to them at the end of the review. These recommendations were:

1. The Research Unit should seriously consider requesting the sponsors to send a technical review team within the next 12 to 18 months to do a thorough review of the Unit's overall research program.

   a. The review team can consist host country forestry research experts (e.g. Dhera Dun), members of the U.S.D.A. Forestry Support Program, and/or expatriate academicians. A high level of technical expertise in forestry research is needed.

   b. A senior level Forest Biometrician will be a critical team member.

   c. The team should spend two or three weeks in the field before writing its report. A rushed trip will not provide enough time for a thorough, in-depth review.

   d. The team should recommend a research program for the next five to ten years.

2. Research Unit members should request training to strengthen their research design capabilities.

   a. Research design will be critical in planning specific projects within the unit.

   b. Strengthened research design capabilities will allow the Unit to critically review or specify designs to contractors instead of having to accept what the contractors suggest.

3. A strong program for growth and yield research should be established. This should include spacing and site studies. This information is needed in the field to make informed management decisions (see Microplanning above).

   a. The seed selection program has already identified the more important species.

   b. This program will extend beyond the life of the current project. However, good TA now will establish the foundation and set the example for research continuing many years into the future.

4. The Research Unit by itself, or working with M&E, should establish a data base of variables needed to make financial and economic analyses of various management options so as to provide guidelines for choosing the optimal.

a. Variables collected should include quantities of inputs, prices of inputs, and selling prices of forest products. Quantities of outputs should come from the growth and yield research above. However, additional work may be needed to quantify grass and other non-wood outputs.

b. The Unit should consider requesting TA from a Forest Economist to help design this research. Alternatively, a Forest Economist could be included in a review team (#1 above) and give assistance at that time.

5. The Research Unit must have more personal computers. At least two, and preferably more, should be located at the center. Each of the five research stations should have two computers for data entry and local analysis.

6. Research Unit personnel should learn to use general computer software packages rather than have special software written for specific needs.

a. The "needs" are temporary and will change with time. The special software will be useless when the needs change.

b. General software, such as database management packages, electronic spreadsheets, and statistical analysis packages, should be purchased.

c. Training should be requested for using these general software packages. Technical personnel, but more importantly, supervisory and scientific personnel, should be trained in its use. The upper echelon in the Research Unit must be trained so it knows the software capabilities and can adequately design research and instruct technicians in its use.

INDIA

NATIONAL SOCIAL FORESTRY PROJECT

ENVIRONMENTAL ISSUES

By A. Contreras (World Bank)

The National Social Forestry Project was designed with explicit environmental objectives in mind. Information about environmental effects of the project has not been collected systematically. The following discussion is based on informed guess and limited field observation than on hard data.

The project is likely to have produced a number of positive environmental impacts, but it is also possible that the activities of the project might have generated some negative ones. The nature of these potential impacts is discussed below. Since positive impacts are not an issue, emphasis is made on the potentially negative effects.

1. Positive Impacts

Firstly, the basic assumption at the project design stage was that, by and large, the environmental impacts of plantations would be positive. This assumption was partially right. In fact, many of the plantations have been carried out in wastelands or other lands with practically no alternative use.

Secondly, it is plausible that the project, through substitution of sources of supply, reduced at least to a certain extent, the pressure on existing natural resources thus preserving their positive effect on soil and moisture conservation, biodiversity and aesthetic values. The extent of this effect depends of the degree of substitution. There is evidence that in many cases users have switched from natural sources of raw materials to wood produced by the project. Furthermore, fuelwood markets have been supplied with wood from the project and a substantial quantity of fuelwood from plantations also is being consumed locally. Likewise, substitution of fuelwood for cowdung and agricultural residues is maintaining soil fertility. However, while all these effects have likely taken place, the extent of substitution is not known with precision.[1]

In all probability, expanded tree cover has increased soil moisture retention and has improved soil structure and, in certain cases, nutrient content (by, for example, increasing organic content and nitrogen when nitrogen-fixing species are used). Tree cover established in barren lands -

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1 In addition, the increased supply of forest materials apparently has induced greater consumption, as evidenced by the decline in prices of wood. Such decline can happen because of a reduction of demand, an increased supply or combination of both these factors. Given expanding population and incomes per capita it is very unlikely that any reduction in demand may have taken place. The contrary is probably true. Therefore, if demand has increased, declining prices indicate that supply has increased even faster and that total consumption also increased over time.

as many of the social forestry plantations are - has probably helped reduce erosion and has improved water quality through reduced run-off. The aesthetic effect of social forestry plantations are numerous as well.

Despite all this, environmental impacts could have been more numerous and more benefits could have been derived had plantations been planned explicitly taking into account environmental factors along with the traditional wood producing objectives. Apart from this, perhaps some environmental problems also could have been avoided.

2. Negative Impacts

Most environmental problems normally associated with large-scale plantations are not present in the present project. The loss of biodiversity because of replacement of native vegetation by plantations does not take place in this case. Soil damage due to site-clearing for plantation or to logging is also absent as no substantial site preparation is needed and trees are generally of small dimension. Soil compactation due to the use of heavy machinery is also absent because of plantation as well as harvesting operations are carried out by manual, highly labor-intensive processes. However, the following potentially negative impacts should be kept in mind :

2.1 Use of exotics and monocultures. Social forestry plantations until recently have tended to be based on a very limited number of species, many of which are exotics. The risks of monocultures being exposed to pests due to simplification of natural ecosystems are well known. These risks increase in the case of exotics because there is an absence of natural controls. Some cases of rapidly spreading pests have been reported in, for example, plantations of Leucaena in UP. Monocultures also may affect the chemical and biological balance of soils as well as the dynamics of decomposition because litter becomes dominated by one or few species. In addition in some cases monocultures may increase the risk of fire. This apparently has happened in the case of Pinus roxburghii in HP.

However, it must be understood that in certain cases monocultures have been promoted because there were no practical alternatives. In these situations the practice cannot be criticized. In UP for example, vast areas in the plains are extremely alkaline or saline and there are only one or two tried species which are known to prosper in these soils. In other cases, species have been selected because they are not palatable and therefore not affected by cattle. Still in other cases, such as Eucalyptus, economic advantages outweigh possible environmental disadvantages. Furthermore, social forestry plantation rarely involve vast extensions of land in single, block, plantations and therefore, the risks of pests or fires getting out of control is somewhat reduced.

Obviously, the project has not generated the ideal conditions but in the analysis of possible negative effects of monocultures and reliance on exotic species, the right question is not whether the project has achieved the ideal ecological conditions but rather what would have happened to these areas had the project not been implemented. In this perspective, it is clear that the overall environmental impact of plantations carried out under this project has been positive.

2.2. Depletion of soil moisture and lowering of water table. Particularly in connection with Eucalyptus, it has been said that trees compete for water and nutrients with adjacent agricultural crops. However, direct observation indicates that there is no noticeable effect in irrigated areas. The situation may be different in rainfed areas but even in these cases it is entirely possible that the additional gains from forestry production may more than balance the cost incurred in terms of reduced agricultural production. Hard information on this environmental impact and the associated cost-benefit relationship are, unfortunately, not available.

3. Policy Issues

There are a number of policy issues which transcend the narrow limits of environmental considerations and have a decisive influence on the way resources are managed and therefore on the environmental consequences of the project.

It is evident that a large-scale and cost-effective impact can only be obtained through the active participation of the private sector, particularly the rural people. In turn this requires a proper economic framework, with adequate incentives. There are, however, several policy measures which contribute to discourage private action.

An example is the prohibition to fell trees. Originally this restriction was apparently aimed at reducing tree cutting, particularly of species rapidly becoming scarce. Certainly there is no rationale to apply this restriction to plantations. If this policy continued to be applied it is evident that farmers would be reluctant to plant trees if they could not harvest them. Some progress has been obtained and the list of species which do not require previous permission for felling has been greatly expanded in UP, for example. This trend needs to be encouraged and strengthened.

Similarly, transit permits need to scraped. In general these controls are costly and foster corruption. On the other hand, in the case of plantation wood, their benefits are probably negligible as illegal cutting and transportation taken place anyway.

Moreover, private participation must rest on clear "rules of the game". This means that, in joint activities with the participation of both the public and the private sector, it must be clearly defined who will bear what costs and who will receive the benefits. One of the roles of microplans should be that of defining the distributional aspects of activities undertaken under the project.

In this respect there is one aspect that needs to be kept in mind and that is the fact that land improvements resulting from the activities of the project may benefit several groups in a differential manner. There is the risk that the poorest strata may be excluded from the stream of benefits generated by the project. Land may simply become too expensive to secure their access to it.. Consequently, microplans should also incorporate equity considerations and analyses in their preparation.

4. Recommendations

The mid-term review of the NSFP issued a set of recommendations related to environmental aspects. The present analysis confirms the relevance of these recommendations. It is suggested that sufficient time should be allowed for their implementation. Having said this, the following inter related aspects should be stressed :

4.1. Integration of environmental objectives in planning planting activities. It is recommended that the design and management of activities under the project move away from the exclusive focus on wood production to include compatible environmental objectives. This implies the design of project's activities on the basis of a system approach, considering multiple activities and species of trees and other plants for the satisfaction of local needs.

4.2. Improve microplanning. The approach should be focussed on development issues more than forestry issues. The appropriate management of forestry ecosystems should be an instrument or a means to achieve development objectives rather than an end in itself. This

approach also implies the very active participation of the local people in planning as well as in implementing the activities of the project. This is in fact a prerequisite for ensuring the sustainability of project's benefits. The project should design schemes for mutually reinforcing production of environmental and economic benefits and carry out economic as well as financial analyses of these schemes. The most promising ones - from the point of view of the different dimensions, including environmental, economic and technical soundness - could then be tried in a few, selected cases.

4.3. Stress current emphasis towards the use of a wider variety of species. Whenever possible give emphasis to the use of species and provenances with high fire, pest and disease resistance.

4.4. Use low water demanding species and foster the widespread use of techniques to minimize run-off and evaporation and increase infiltration in areas where competition for water is likely to be important. Additional research may be needed to identify species or associations of species, including trees, shrubs and grass, which generate the greatest aggregate impacts on soil and moisture conservation, the costs of these technologies as well as the value of the additional benefits generated.

4.5. Foster the genuine involvement of people in project activities - planning as well as implementation - to secure the sustainable implementation of environmentally-related aspects. This implies a proper understanding of the local objectives and constraints and of how forestry-related activities can both satisfy local needs and take effective advantage of opportunities for increased production. It also implies an analysis of economic and financial results of alternatives and a study of how benefits and costs are distributed among members of the community.

4.6. Eliminate policy obstacles to greater private investment in forestry initiatives. Felling prohibitions; transit permits and government interventions in markets should be minimized in order to foster independent, decentralized, action by the private sector.

INDIA
NATIONAL SOCIAL FORESTRY PROJECT

Decentralized Seedling Production

By V.P.S. Verma (World Bank)

During Mid Term Review of National Social Forestry Project it was recognised that sustainable production of tree products is interalia dependent upon privatising decentralized seedling production. It is now to be assessed how far the recommendation of MTR in this respect has been pursued and implemented by the State Governments.

GUJARAT

The centrally sponsored scheme of Decentralized Peoples Nurseries (DPN) was launched in the state during 1986-87. The financial allocation for this activity and expenditure during last four years was as under :

(Rs.million)

Year	Allocation	Expenditure	Percentage
1986-87	20.00	19.97	99.86
1987-88	19.87	12.81	64.49
1988-89	20.00	20.48	102.40
1989-90	20.00	16.95	84.75

The extent of the activity is guided by the target allotted each year by the Govt. of India under the scheme and is not related to its potential in the State. Funds from NSFP are mainly used for raising departmental nurseries.

The total number of decentralized nurseries and the number of seedlings produced therein is as under :

Year	No. of DPN nurseries	No. of seedlings produced (million)
1986-87	4152	92.0
1987-88	4521	27.0
1988-89	4721	79.0
1989-90	4570	78.3

The drop in production of seedlings during 1987-88 is attributed to severe drought during the year. The area of such nurseries is not known. However, in a study conducted by the Institute of Resources Management and Economic Development (IRMED) Delhi, 1990, it was reported that the area of such nurseries varied from 0.01 to 0.03 ha. each.

The total number of seedlings planted in the state and proportion thereof grown in DPNs is shown below :

Year	Total No. of Seedlings planted in the state (million)	No. of Seedlings produced in DPN (million)	Percentage
1986-87	152.8	92.0	60
1987-88	113.2	27.0	24
1988-89	218.2	79.0	31
1989-90	229.3	78.3	34
1990-91	Not known	NA	-

The National Land Use and Wastelands Development Council (NLUWDC) had decided that by 1987-88 the seedling production in DPN should be 50% of seedling production in the state. From this point of view the state has not been able to achieve the target of establishment of decentralized nurseries, production of seedlings and selection of nursery operators.

Selection of Nursery Operators

Each year applications are invited by CFW for selection of nursery operators. The candidates intimate the no. of seedlings they can produce and also their experience etc. CFW selects nursery operators from amongst the applicants giving preference to small and marginal farmers, scheduled castes/scheduled tribes etc. However, when suitable farmers from such sections of society are not available others having facilities are chosen. Majority (83 to 85%) of the nursery operators are individual farmers (Kissan); the remaining being mainly schools. There are no nurseries operated by women and cooperatives in the state although it was envisaged that such nurseries will be operated by small and marginal farmers and the village institutions like women groups, schools, cooperatives, and voluntary agencies etc. In the study conducted by IRMED in two districts of the state it was observed that 80% of the nursery operators were small and marginal farmers. Medium farmers constituted about 15% and big farmers 5%.

SFW provides necessary technical know-how to the nursery operators, besides a subsidy of Rs.0.30 per seedlings of acceptable quality raised in the nursery. The seed, polythene bags and fertilizer etc. are purchased by the nursery operators themselves. However, if the nursery operator is not able to purchase seed, the SFW supplies the same to him and deducts suitable amount from the subsidy to be paid to him.

Species grown

The species commonly raised in decentralized nurseries are Eucalyptus, Subabul, and Casuarina. During discussions the nursery operators informed that the farmers often demand fruit trees for planting, which should be encouraged.

Disposal of Seedlings

The nursery operators are free to dispose of the seedlings produced by them. There is no restriction from Forest department on charging of price by them. Since the CFW supplies 400 seedlings to the planters free of cost, the nursery operators find it difficult to sell their seedlings to the planters except for some fruit trees. It will be advisable that SFW does not distribute seedlings free of cost in the area where DPNs have been established. It will be better to introduce cost element for the seedlings supplied from departmental nurseries as well as DPNs.

Sometimes nursery operators sell seedlings to institutions and individuals. It should be encouraged.

Suggestions

1) Seedlings supplied from departmental nurseries should be suitably priced so that DPN may sell the seedlings to planters.

2) To improve the quality of seedlings from DPNs standard of seedlings of various species considered fit for planting should be established and intimated to the growers as well planters.

3) Free seedlings should be restricted to 400 for small and marginal farmers only and should be supplied from departmental nurseries. If they are to be supplied from DPN then the cost should be paid by CFW to the operators in addition to the support given to them.

RAJASTHAN

Decentralized Peoples Nurseries (DPN) are being established in the state under the Centrally Sponsored Scheme (CSS) as well as under National Social Forestry Project (NSFP). Target of DPNs under CSS is allotted to the state by GOI every year. The number of such nurseries established under CSS and the seedlings produced are as under :

Year	CSS		NSFP		Total No. seedlings (million)
	No. of nurseries	No. of seedlings (million)	No. of nurseries	No. of seedlings (million)	
1986-87	392	8.3	1000	1.1	9.4
1987-88	292	5.2	1111	3.4	8.6
1988-89	516	9.7	287	3.2	12.9
1989-90	760	13.7	328	4.2	17.9

DPNs are being established in the state through Non-government organisations / voluntary agencies also for which funds are provided to them by Government of India (GOI) directly. The funds allotted and the expenditure incurred on decentralized nurseries raised under CSS and NSFP are given below :

(Rs. Million)

Year	CSS		NSFP	
	Funds allotted	Expenditure	Funds allotted	Expenditure
1986-87	4.50	2.83	0.44	0.44
1987-88	3.00	2.19	1.64	1.36
1988-89	3.55	2.33	1.68	1.29
1989-90	6.15	5.50	1.84	1.68

Total number of seedlings planted in the state during last few years and the proportion thereof produced in DPNs is given below :

Year	No. of seedlings Planted (million)	No. of seedlings Produced in DPNs (million)	Percentage
1986-87	134.1	9.4	7.0
1987-88	117.3	8.6	7.3
1988-89	131.0	12.9	9.8
1989-90	91.3	17.9	19.6
1990-91	54.1	N.A.	N.A.

It is clear that the state is lagging far behind the target of decentralised production of seedlings (50%) set by NLUWDC.

Selection of Nursery Operators

Nursery operators are selected by SFW each year. Normally one nursery man raises 25,000 seedlings. If more seedlings are required at any particular place few more nurseries are established there accordingly. Preference is given to small and marginal farmers and SC/ST. However, when such nurserymen are not available the work is allotted to others. Since no study

has been conducted on such nurseries, the economic status of the nursery operators is not known. DPNs are also operated by schools, and women as shown below :

Year	DPNs run by Farmers	Women	Schools	Total
1986-87	1252	34	106	1392
1987-88	1262	108	33	1403
1988-89	714	81	8	803
1989-90	898	157	33	1088

The nursery operators can continue year after year so long their performance remains satisfactory.

Government Support

Besides providing the technical support to the nursery operators, the SFW also subsidizes seedling production upto Rs.0.45 per seedling of acceptable quality.Rs. 0.15 per seedling is actually not paid to the nursery operator but is kept by SFW in lieu of the inputs (polythene bag, seeds, and fertilizer) supplied to him. So in effect the nursery operator gets Rs.0.30 per seedling.

Species grown

The species grown in the nurseries are such as have good demand from the farmers and vary in various regions of the state. In Jaipur district, the species most commonly in demand is Ailanthus excelsa, because of its fodder value. It was informed by SFW that fodder is in great demand in suburbs of Jaipur. Dealers often contact the farmers in villages and even transport the fodder from there at their own cost. A full grown tree of Ailanthus excelsa gives an earning of Rs.100-150 per plucking. Leaves are harvested twice a year. Thus, the income per tree varies from Rs.200 to 300 per annum. Other species grown by farmers in Jaipur district are, subabul, Acacia, tortilis (mainly for boundary planting), neem, Prosopis spicigera, and Cassia siamea besides fruit trees like guava, papaya, citrus and Carissa spinarum (for planting an boundary).

In Chittorgarh region the main species grown are bamboos alongwith Prosopis juliflora, while in Ajmer, it is Eucalyptus and Prosopis juliflora. In Bharatpur region, the choice falls upon sissu, Eucalyptus and neem. The demand of Eucalyptus is very high. Khejri (Prospis spicigera) is a useful fodder tree and is in demand but it is not planted on any significant scale because of its slow growth in the early years. It is mostly found growing naturally in agricultural lands and is regularly coppiced by the farmers for fodder.

The polythene bag size used by the farmers is 10 x 25 cm..

Disposal of seedlings

The seedlings are allotted by SFW to the farmers who lift them from the nurseries. Till 1989-90, the seedlings were allowed to be taken free of cost, but from the current year the seedlings have been priced Rs.0.10 per seedlings for thorny xerophytic species and Rs.0.20 per seedlings for others. SC/ST have to pay half of the price fixed for the species.

Implications of seedling pricing

Hitherto the farmers have been getting the seedlings free of cost and it is expected that introduction of price will have a temporary set back on lifting of seedlings. It was confirmed during field visit.

Year	No.of seedlings grown	No. of seedlings lifted	Remarks
1989-90	100,000	70,000	Seedlings free of cost
1990-91	50,000	12,000	Pricing introduced

Nursery operators are generally complacent because of the support of Rs.0.30 per seedling received by them from SFW and do not make effort to find market. They are assured of lifting of seedlings by SFW through the allottees.

There is good market for seedlings, SFW should help in putting the growers of seedlings (nursery operators) and planters in touch with each other. The nursery operators should be encouraged to contact the prospective planters (like various institutions and industries) one year in advance and plan the cultivation of seedlings accordingly.

Expectedly in the present situation, the nursery operators are banking entirely upon the support given to them by SFW and most of them may not continue after withdrawal of the support now or after closure of the project. Extensive efforts need to be made during currency of the project to encourage the nursery operators to find market for the seedlings. SFW should guide them in this respect.

Quality of seedlings

The success of the programme interalia depends upon the success of seedlings planted, which in its turn is largely dependent upon quality of seedlings produced in the nurseries. At present, the customers generally prefer to obtain seedlings from Government nurseries, with belief that their quality is better than that of the seedlings raised in decentralized nurseries. SFW should establish standards for seedlings of various species and advertise them for the benefit of all concerned.

INDIA

NATIONAL SOCIAL FORESTRY PROJECT

MONITORING AND EVALUATION

By Ronald Ng (World Bank)

Introduction

1. Considerable progress in Monitoring and Evaluation has been made since the Mid Term Review of February 1988 in the two states, Gujarat and Rajastan, visited by the M&E Specialist and indirect evidence indicates that similar development has also occurred in Himachal Pradesh and Uttar Pradesh. Of the four specific recommendations of the Mid Term Review Mission, the first two regarding organizational structure and data collection seem to have been carried out in full. However, more effort is needed on training in computerized data processing and analysis before the data collected on monitoring of project performance can become meaningful as decision inputs for the management of the project.

Problems and Progress

2. The Monitoring and Evaluation system for the Social Forestry project in all states is based on the Operational Guide on the subject (The "Red Book") published in 1986. Although changes have been made subsequently; the methodology remained essentially the same throughout the life of the project. Basically, the system is composed of two parts: the first aims at collecting systematic progress information on afforestation activities including social forestry. The monthly, quarterly and annual reports as to enable the National Wasteland Development Board to monitoring all afforestation activities in India; the second is for conducting periodic surveys on social forestry activities for on-going evaluation. The Monitoring and Evaluation Units in the states are solely responsible for the on-going evaluation surveys and data analysis. In most cases, they have also been appointed the Nodal Agency for collating physical and financial progress information for forwarding to the National Wasteland Development Board in the standard format prescribed in the Red Book. To facilitate standardization and speedy data processing, a suite of programs were prepared by consultants, micro-computers installed and staff trained.

3. However, over the past few years, a perception has arisen that the methodology has not been working well. Several reasons have been advanced to explain the problems faced by the M&E Units and a number of recommendations have been suggested. The recommendations include a simplification of the format and contents and the provision of more computer training for the operators.

4. In reviewing the situation with staff of the Monitoring and Evaluation Units in the states, the mission comes to the conclusion that the failure of the M&E Units in compiling the GOI reports for the National Wasteland Development Board on a timely basis and in the correct format is not the result of lack of skill in running the programs provided by the CMC consultants, but of the failure of the other agencies involved in wasteland development to supply the necessary data to the M&E Units. Obviously, the "nodal agency" concept is not working as intended. The M&E Units have no authority to demand the timely submission of the information required. In the way that the programs are structured, unless the Board can cause all the agencies to furnish the M&E Units with such progress data in the form required by the program, the prescribed reports could not be produced. This problem is therefore for the National Wasteland Development Board to resolved.

5. Regarding the on-going evaluation of farm forestry, village woodlot and other social forestry activities, such as promotion of fuel saving devices, the Monitoring and Evaluation Units have managed to keep to the schedule specified in the Red Book, viz. farm forestry survey every other year, village woodlot survey once every fourth year and the evaluation surveys for the remaining year in the four-year cycle. There seems to be no problem with this work load for the field survey staff. Nor is there any problem in tabulation of the survey data using the CMC computer programs. In these surveys the problems faced by the Monitoring and Evaluation Units have to do with the sampling methodology; and the inflexible tabulations laid down by the computer program.

6. While the Red Book recommends a very elaborate probability sampling design for the Farm Forestry Survey, the sampling methodology for the Village Woodlot Survey follows a totally different approach, while no recommendations are given for collecting data for the other types of evaluation surveys, and the M&E Units have to improvise. In this regard, some M&E Units are doing better than others. When the Guide was originally prepared there was little information on which to determine the variances of the key variable and it was understood then that as experience is gained and data become available the methodology should be thoroughly reviewed. At the time of the present review, data from the various surveys are just becoming available and a review leading to a revision of the design would seem to be premature. The M&E Units should for the time being follow the procedure laid down in the Red Book.

7. The most serious problem seems to be the inflexibility of survey data processing built into the computer program mandated by the National Wasteland Development Board. From a national point of view, standardized table format would facilitate comparison among the states, but for the project managers at the state level, it would be more important for them to pick out specific topics of concern for more detailed analysis so as to formulate appropriate actions according to the situation revealed by the monitoring/ongoing-evaluation program. By using the program suite supplied by CMC, both Rajastan and Gujarat Monitoring and Evaluation Units can produce all the tables but not the interpretation. Rajastan's unit can only produce a four-page annotation on the farm forest survey with a sample size of over three thousand farmers, while Gujarat's unit had to manually re-process the data from a survey of similar size to produce it Farm Forest Report.

Recommendations

8. While there are a number of issues that have to be addressed before the goal of a management oriented monitoring and evaluation system could be achieved, given the present condition of the Monitoring and Evaluation Units in the project States, the best option is to first build up the strength of the units before tackling the more complicated problems of improving the sample design.

9. In improving the capabilities of the State Monitoring and Evaluation Units, the mission recommends the following actions:

(a) upgrade the computing equipment by adding two units of ATs (286 or 386) with at least 40MB of storage;
(b) purchase modern up to date software packages for handling the survey data. These packages should include DBase 3+, Lotus 2.2, Harvard Graphics, Microsoft Project 4.0 and a word processing package with Hindi capability; and
(c) provide in-house training of approximately 100 hours for all officers in the social forestry wing who would need access to he monitoring and evaluation data.

10. Taken in toto, these recommendations would ensure a much better utilization of the on-going evaluation survey data by management and a much enhanced quality of survey reporting to those concerned with policy issues in Social Forestry.

Consultant for In-House Micro-computer Training for Monitoring, Evaluation and Social Forestry Staff

Terms of Reference

Background.

Under the National Social Forestry Project, Monitoring and Evaluation Units have been established in Social Forestry Directorates of the Forestry Departments of Gujarat, Rajastan, Uttar Pradesh and Himachal Pradesh. A major function of these Monitoring and Evaluation Units is the gathering of project relevant information through a number of sample survey to inform management of the status and performance of the various components of the National Social Forestry Project in their respective states. Guidance for monitoring and evaluation activities has been laid down in An Operational Guide to the Monitoring and Evaluation of Social Forestry in India. This design provide for survey of tree growing farm households, village woodlot and of participants in various project activities.

To process the survey data, the consultants to the National Wasteland Development Board developed in 1987 a suite of programs (in DBase 3+) for the processing and tabulation of the Farm Forestry and Village Woodlot Surveys. Microcomputers have been installed in all project states, and computer operators trained for data input and tabulation in menu-driven mode. Progress in these areas has been generally satisfactory. However, as the survey data begin to accumulate, an opportunity for flexible analysis of the survey data as decision inputs for state level management has arisen. To facilitate this process, the National Social Forestry Project would support the purchase of additional units of microcomputers and modern versions of industry standard software packages. To ensure the achievement of monitoring and evaluation goal of providing timely and meaningful information as decision input, there is a need for upgrading the microcomputer skills of the monitoring and evaluation staff and for increasing the awareness of computerized data analysis of the program managers.

Scope of Work.

The Social Forestry Directorate of the Forestry Department, Gujarat State would therefore invite the services of an individual consultant to provide up to 100 hours of in-house microcomputer training, in the first instance, for its Planning, Monitoring, Evaluation and Management staff at their offices in Amdavad. The topics to be covered should include, as a minimum, the following:

(a) use of Spreadsheet, including graphics, data functions and simple macros;
(b) use of Database, including database design, relational files, reporting;
(c) Word processing, including Hindi scripts;
(d) use of an appropriate Graphics package;
(e) use of an appropriate Scheduling and Costing Package; and
(f) use of a simple Statistical package identified by the consultant.

All examples, demonstrations and exercises shall be based on the survey and other data collected by the local Monitoring and Evaluation Unit, or on the regular information used in Planning and Reporting.

All training shall be conducted on the premises of the Social Forestry Directorate and on the equipment of the Monitoring and Evaluation Unit

Qualifications.

The consultant should have at least five years of relevent experience in work involving the use of micro-computers and have proven record in training the use of software packages.

The applicant should describe in detail his experience with each of the following software packages: Lotus 123; DBase 3+ or Dbase IV; Harvard Graphics or equivalent; Microsoft Project, Insta Plan or equivalent. A detailed training proposal would also be required as part of the application.

ANNEXURES

1. World Bank letter to Ministry of Environment & Forests (GOI) highlighting main recommendations.

2. Status of Covenants (overall)

3. Schedule of disbursement (overall)

4. Action plans and progress indicators for Gujarat

5. Action plans and progress indicators for Rajasthan

6. Action plans and progress indicators for Uttar Pradesh

7. Action plans and progress indicators for Himachal Pradesh

The World Bank
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International Development Association

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November 13, 1990

Mr. Mahesh Prasad
Secretary
Ministry of Environment & Forests
CGO Complex
Paryavaran Bhavan
Room # 402, Lodi Road
New Delhi-110 003

Dear Mr. Prasad:

National Social Forestry Project (NSFP)
Credit 1611-IN, USAID 386-0495

A joint World Bank - USAID review mission comprising Messrs. P. Guhathakurta, A.K. Banerjee, A. Contreras, R. Ng, V.P.S. Verma (World Bank) and W. Leuschner and Ms. J. Kathy Parker (USAID) visited Gujarat, Uttar Pradesh, Himachal Pradesh and Rajasthan from October 4-13, 1990.

The reports prepared by the mission include: (a) an evaluation and four-state synthesis report, (b) separate aide memoires for each state and the Central Support Office under the NWDB, and (c) a technical annex dealing with monitoring and evaluation, decentralised seedling production, environmental, economic and sociological issues. The state aide-memoires were discussed with the state government officials on October 23 and 24, 1990 and the one for NWDB with NWDB officials on October 16, 1990.

I endorse the findings of the mission, and attach for your reference a list of the recommendations, as well as agreed work programs for each state for the next two years. The Credit is due to close on December 31, 1990. The mission has recommended consideration of an extension of the Closing Date by two years and three months; in the first instance by one year to December 31, 1991.

We are now making a recommendation to our Washington office concerning extension of the Closing Date by one year in the first instance since the states have agreed to comply with the following:

Gujarat:	(i)	Agreement to provide budgetary support during FY 1990-93 to draw down the balance Credit; and
	(ii)	Compliance with the covenants on reduction of number of free supply and pricing of seedlings.
Uttar Pradesh:	(i)	Removal of restrictions on felling and transportation of tree products grown under social forestry.
Himachal Pradesh:	(i)	Establishment of a direct line of administrative control for social forestry activities.
Rajasthan:	(i)	Provision of budgetary support during FY 1990-93 to draw down the balance Credit; and

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(ii) Creation of four more SF Divisions by adjustment and one post of Conservator.

I request that you would kindly co-ordinate with the states so that these actions are quickly completed.

Amongst the Mission's recommendations, I would particularly draw your attention to the following:

(i) Public Participation in Social Forestry. The concept of microplanning was introduced as a tool to promote public participation. Some states have already prepared a number of microplans but few have been done by them in enough consultation with the people. Training of the officials engaged in planning is thus felt to be essential. The mission proposes that a facilitation team of a forester and a sociologist in each state be employed to assist the planners in this task and so that they learn the microplanning process by doing it with the team.

(ii) Technology. The Bank and the USAID have proposed some changes in technologies for adoption to increase vegetative growth and establish multi-tier canopy plantations. While these have been accepted in principle, the rate of adoption is slow. This needs to be stepped up in the coming years.

(iii) Restriction on felling and transportation of wood products grown in private land. You are aware that these restrictions act as disincentives to farmers to plant since farmers do not have the full freedom to dispose of the produce. While some states have relaxed the restrictions to a certain extent, a lot more (particularly on restrictions to transportation) needs to be done. I request that you would please focus on this issue to get the remaining restrictions removed.

(iv) Seedling Pricing. Four states have different seedling pricing policies. The seedling price should not be administered but allowed to find its price according to market demand. In consultation with the states, a rational policy in this regard needs to be worked out.

IDA disbursements as of September 30, 1990 were SDR 87.5 M for the four states and CSO/NWDB, which is 52% of the Credit and 55% of the SAR estimate. The undisbursed balance is SDR 78.9 M, which is equivalent at the current level of exchange to US$ 110.5 M. While the states have agreed to provide budgetary support for the FYs 1990-91, 1991-92 and 1992-93 that will largely draw down the undisbursed amount, your Ministry needs to provide the needed budgetary support for the CSO under the NWDB.

The mission members fully appreciate the cooperation and assistance received from the NWDB and the states in carrying out field inspections and finalising the reports. I would be happy to clarify if any part that have been made in the reports or this letter that is not clear.

With regards,

Yours sincerely,

Michael Baxter
Chief, Agriculture Unit

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cc: Mr. Samar Singh, Additional Secretary, NWDB
Mr. Sudhir Kumar, Deputy Secretary, DEA

cc: Mr. G. Subba Rao, Secretary, Department of Environment & Forests, GOG
Mr. A. Kapasi, Principal Chief Conservator of Forests, GOG
Mr. H.A. Vaishnav, Chief Conservator of Forests, Social Forestry, GOG

cc: Mr. R.R. Shah, Secretary, Department of Environment & Forests, GOUP
Mr. R.S. Mathur, chief Conservator of Forests, Social Forestry, GOUP

cc: Mr. S.S. Sidhu, Secretary, Department of Forests, GOHP
Mr. A.K. Mukherjee, Principal Chief Conservator of Forests, GOUP

cc: Mr. M.L. Mehta, Agricultural Production Commissioner, GOR
Mr. B.S. Minhas, Secretary, Department of Forests, GOR
Mr. A.B. Mathur, Director, Social Forestry, GOR

cc: Mr. Amitabha Ray/Mr. W. Leuschner/Ms. J. Kathy Parker (USAID)

bcc: Messrs. Wijnand/Van de Poll, Guhathakurta, Alexander, Verma, Subramanian, Venkataraman, Jain, Lodha

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INDIA
NATIONAL SOCIAL FORESTRY I
(CR.1611-IN)

Status of Covenants

Page No. 1
11/14/90

Section	Summary Description	Type	Original Compliance Date	Revised Compliance Date	Level of Compliance	Remarks
GUJ.10 AGR MIN	GOG to make adequate provision for vehicles and travel allowances to allow field staff to effectively carry out their extension responsibilities.	ORG	/ /	/ /	1	
GUJ.10.AGR MIN	GOG should reduce free distribution of seedlings from 2,500 per family to 1,000 by 1985,800 by 1986,600 by 1987,400 by 1988, and 200 by 1989. The charge of seedlings should be increased to 10 paisa by 1987 and 20 paisa by 1989.	ORG	/ /	/ /	2	
GUJ.2.02	After third year of planting but not later than 3.31.88 each State undertakes to carry a joint review of its subproject with borrower and IDA.	ORG	03/31/88	/ /	1	
GUJ.2.03	Once a year each State will furnish IDA results of the M&E of its subproject.	ORG	/ /	/ /	3	The new World Bank/FAO/GOI guideline h been introduced, but Annual Reports fo 1987/88 and 1988/89 are awaited.
GUJ.2.04	At least every two years each State will revise/update its wood balance study.	ORG	/ /	/ /	1	
GUJ.3.01C	Borrower shall make available out of proceeds of Credit an amount equivalent to SDR 62,300,000 to GOG.	ORG	/ /	/ /	1	
GUJ.3.04A	GOI shall furnish IDA proposed structure of Central Forestry Organization.	ORG	04/30/86	06/30/87	1	
GUJ.3.04B(i)	GOI shall sanction by 4.30.86 and fill by 10.31.86 the position of Head of the Central Social Forestry Organization.	MOU	04/30/86	/ /	1	
GUJ.3.04B(ii)	GOI shall maintain thereafter position of Head of the Central Social Forestry Organization and those of Chief Project Economist and Deputy IGF/Monitoring.	MOU	10/31/86	/ /	1	

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Page No. 2
11/24/90

Section	Summary Description	Type	Original Compliance Date	Revised Compliance Date	Level of Compliance	Remarks
SUJ,4.01A2	Borrower shall cause its depts.& other agencies responsible for Part A of the project to furnish IDA not later than 4 months after each FY certified copies of their accounts & financial statements.	FIN	03/31/88	/ /	1	
SUJ,4.01B	Borrower shall cause its departments & other agencies to furnish IDA immediately upon finalization report on audited accounts and financial statements.	GOI	03/31/88	/ /	1	
SUJ,SH.2.01A	GOG To furnish information on private wasteland planting schemes,tree tenure schemes,community managed woodlots and tree fodder plantations which shall cover procedures for selecting participants,participants' rights & responsibilities, etc.	UKG	12/31/85	/ /	1	
UKJ.SH.2.09	GOG shall maintain coordination committees for social forestry activities.	UKG	/ /	/ /	1	
UKJ.SH.2.11	By 3.31.88, GOS to carry out a cost recovery study regarding social forestry seedlings distribution & implement its findings.	SID	03/31/88	03/31/90	1	
HP,10 AGR MIN	GOHP should make adequate provision for vehicles and travel allowances to allow field staff to effectively carry out their extension responsibilities.	UKG	/ /	/ /	2	No motorcycles have been purchased which is affecting implementation.
HP,10 AGR MIN	GOHP should raise its charge for seedlings to 15 paisa by 1987 and 20 paisa by 1989.	UKG	/ /	06/30/90	1	It has now been proposed by the Bank to increase it further and reduce the subsidy.
HP,3.01C,DCA	Borrower shall make available out of proceeds of Credit an amount equivalent to SDR 24,500,000 to HP.	UKG	/ /	/ /	1	
HP,3.04A,DCA	GOI shall furnish IDA proposed structure of Central Forestry Organization.	UKG	06/30/86	06/30/87	1	

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Page No. 3
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Section	Summary Description	Type	Original Compliance Date	Revised Compliance Date	Level of Compliance	Remarks
HP,3.04B,DCA	GOI shall sanction by 4.30.86 and fill by 10.31.86 the position of Head of the Central Social Forestry Organization.	MWI	04/30/86	/ /	1	
HP,3.04C,DCA	GOI shall maintain thereafter position of Head of the Central Social Forestry Organization and those of Chief Project Economist and Deputy IGF/Monitoring.	MGW	10/31/86	/ /	1	
HP,4.01A2,DCA	GOHP shall cause its depts.& other agencies responsible for Part A of the project to furnish IDA not later than 9 months after each FY certified copies of their accounts & financial statements.	FIN	12/31/88	/ /	1	
HP,4.01B2,DCA	GOHP shall cause its depts.& other agencies to furnish IDA immediately upon finalization report on audited accounts & financial statements.	AUT	03/31/88	/ /	1	
HP,SH.2.01A,FA	GOHP shall furnish information on private wasteland planting schemes,tree tenure schemes, community managed woodlots & tree fodder plantations to cover procedures for selecting participants, participants' rights & responsibilities, etc.	ORG	12/31/85	/ /	1	
HP,SH.2.02,FA	After third year of planting but not later than 3.31.88 GOHP undertakes to carry a joint review of its subproject with borrower and IDA.	ORG	03/31/88	/ /	1	
HP,SH.2.03,FA	Once a year HP will furnish IDA results of the M&E of its subproject.	ORG	/ /	/ /	2	Farm forestry upto 3/87 and other woodlots upto 3/88 have been evaluat. and reported.
HP,SH.2.04,FA	At least every two years GOHP will revise/update its wood balance study.	STD	/ /	11/30/90	2	GOHP has approved the study. The fir phase is expected to be completed by November 1990.

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Section	Summary Description	Type	Original Compliance Date	Revised Compliance Date	Level of Compliance	Remarks
HP.SH.2.05.PA	By 12.31.85 GOHP shall make arrangements to ensure that their Dept.of Forests & Dept. of Agr.Ext.Services cooperate to provide ext.service to farmers.	ORG	12/31/85	/ /	2	Orders have been issued, though coordination is wanting.
HP.SH.2.06A.PA	GOHP shall ensure that a single line of administrative command for field staff is maintained from circle conservator down.	MAN	/ /	/ /	3	See HP.SH.2.10.PA.
HP.SH.2.06B.PA	GOHP shall ensure that Steering Committee head by the State Forest Secretary meets quarterly to discuss and assign work priorities for field staff.	ORG	/ /	/ /	1	
HP.SH.2.09.PA	GOHP shall maintain coordination committees for social forestry activities.	ORG	/ /	/ /	1	
HP.SH.2.10.PA	By 3.31.88, GOHP shall carry out a study of the organizational issues in staff forest departments.	STD	03/31/88	06/30/89	3	After a review, GOHP promise to put the project under an AIDI, CCF and a unified command is yet to be implemented.
HP.SH.2.11.PA	GOHP shall carry out a cost recovery study regarding social forestry seedlings' distribution & implement its findings.	STD	03/31/88	06/31/90	2	GOHP has taken up the study internally.
RAJ.10 AGR MIN	GOR should make adequate provision for vehicles and travel allowances to allow field staff to effectively carry out their extension responsibilities.	ORG	/ /	/ /	2	See Section HP.10 AGR MIN.
RAJ.10 AGR MIN	GOR should limit free distribution of seedlings per family to 1,000 by 1987, and 500 by 1989 and should charge 5 paisa per seedling by 1987, 10 paisa by 1988, and 15 paisa by 1989.	ORG	/ /	/ /	1	
RAJ.3.01C	Borrower shall make available out of proceeds of Credit an amount equivalent to SDR 16,700,000 to Rajasthan	ORG	/ /	/ /	1	

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Section	Summary Description	Type	Original Compliance Date	Revised Compliance Date	Level of Compliance	Remarks
RAJ,3.04A	GOI shall furnish IDA proposed structure of Central Forestry Organization.	ORG	04/30/86	06/30/89	1	
RAJ,3.04B	GOI shall sanction by 4.30.86 and fill by 10.31.86 the position of Head of the Central Social Forestry Organization.	NWI	04/30/86	06/30/89	1	
RAJ,3.04C	GOI shall maintain thereafter position of Head of the Central Social Forestry Organization and those of Chief Project Economist and Deputy IGF/Monitoring.	NWI	10/31/86	06/30/87	1	
RAJ,4.01A2	GOR shall cause its depts.& other agencies responsible for Part A of the project to furnish IDA not later than 5 months after each FY certified copies of their accounts & financial statements.	FIN	03/31/88	/ /	1	
RAJ,4.01B2	GOR shall cause its depts.& other agencies to furnish IDA immediately upon finalization report on audited accounts & financial statements.	ADT	03/31/88	/ /	1	
RAJ,SH.2.01A	GOR shall furnish information on private wasteland planting schemes, tree tenure schemes, community managed woodlots & tree fodder plantations to cover procedures for selecting participants, rights & responsibilities of participants, etc.	ORG	12/31/85	04/30/88	1	
RAJ,SH.2.02	After third year of planting but not later than 3.31.88 EOR undertakes to carry a joint review of its subproject with borrower and IDA.	ORG	03/31/88	03/31/88	1	
RAJ,SH.2.03	Once a year GOR will furnish IDA results of the M&E of its subproject.	ORG	/ /	07/31/89	2	First report in Hindi version has been prepared. English version is awaited.
RAJ,SH.2.04	At least every two years GOR will revise/update its wood balance study.	SID	/ /	11/30/90	1	USAID has contracted a marketing study.

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Section	Summary Description	Type	Original Compliance Date	Revised Compliance Date	Level of Compliance	Remarks
RAJ.SH.2.C6	By 12.31.85 GOR shall sanction the position of Conservator of Forests for Planning, M&E.	OBG	12/31/85	/ /	1	
RAJ.SH.2.C9	GOR shall maintain coordination committees for social forestry activities.	OBG	/ /	/ /	1	
RAJ.SH.2.10	By 3.31.88 GOR shall carry out a study of the organizational issues in State Forest Departments.	SID	03/31/88	12/31/90	2	Four more Divisions are likely to be added to the project by adjustment within the existing Divisions.
RAJ.SH.2.11	By 3.31.88 GOR shall carry out a cost recovery study regarding social forestry seedlings' distribution & implement its findings.	SID	03/31/88	09/30/90	1	US AID contracted study has been completed.
UP.10 GOR MIN	GOUP should make adequate provision for vehicles and travel allowances to allow field staff to effectively carry out their extension responsibilities.	OBG	/ /	/ /	2	
UP.10 GOR MIN	GOUP should raise charge per seedling to 25 paisa by 1987 and 30 paisa by 1988.	OBG	/ /	/ /	1	
UP.3.01C	Borrower shall make available out of proceeds of Credit an amount equivalent to SDR 61,500,000 to UP.	OBG	/ /	/ /	1	
UP.3.04A	GOI shall furnish IDA proposed structure of Central Forestry Organization.	OBG	04/30/86	06/30/89	1	
UP.3.04B(i)	GOI shall sanction by 4.30.86 and fill by 10.31.86 the position of Head of the Central Social Forestry Organization.	BWI	04/30/86	/ /	1	
UP.3.04B(ii)	GOI shall maintain thereafter position of Head of the Central Social Forestry Organization and those of Chief Project Economist and Deputy IGF/Monitoring.	BWI	10/31/86	/ /	1	
UP.4.01A2	GOUP shall cause its depts. & other agencies responsible for Part A of the project to furnish ICA not later than 9 months after each FY certified copies of their accounts & financial statements.	FIN	03/31/88	/ /	1	

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Page No. 7
11/14/90

Section	Summary Description	Type	Original Compliance Date	Revised Compliance Date	Level of Compliance	Remarks
UP.4.0182	GOUP shall cause its depts.& other agencies to furnish IDA immediately upon finalization report on audited accounts & financial statements.	AUD	03/31/88	/ /	1	
UP.SH.2.01A	GOUP shall furnish information on private wasteland planting schemes, tree tenure schemes, community managed woodlots & tree fodder plantations to cover procedures for selecting participants, rights & responsibilities of said participants, etc.	OKG	12/31/85	/ /	1	
UP.SH.2.02	After third yeear of planting but not later than 3.31.88 GOUP undertakes to carry a joint review of its subproject with borrower and IDA.	OKG	03/31/88	/ /	1	
UP.SH.2.03	Once a year GOUP will furnish IDA results of the M&E of its subproject.	OKG	/ /	/ /	2	Done upto 1986 plantings in public lands, and the report published in 03/90. For farm and non-farm plantings contracted report for the years 1987-89 published in 3/90.
UP.SH.2.04	At least every two years GOUP will revise/update its wood balance study.	STD	/ /	12/31/90	2	USAID has appointed consultants for the study.
UP.SH.2.07	By 12.31.85 UP shall sanction the position of Additional Conservator of Forests and a Conservator of Forests for planning.	MOW	12/31/85	/ /	1	
UP.SH.2.09	GOUP shall maintain coordination committees for social forestry activities.	OKG	/ /	/ /	2	
UP.SH.2.11	By 3.31.83 GOUP shall carry out a cost recovery study regarding social forestry seedlings' distribution & implement its findings.	STD	03/31/88	12/31/90	2	GOUP has contracted the study to a consultant. Final draft yet to be received.

Codes for Level of Compliance
1 - Fully complied
2 - Partially complied - not affecting implementation
3 - Non Compliance
4 - Not yet due
5 - Covenant no longer applicable - should be deleted/modified
o - Compliance date requires revision
A1 - Audit 1 year over due
A2 - Audit 2 or more years over due

Codes for Type of Covenant
AUD - Audit
FIN - Financial
REP - Reporting
TCH - Technical
STD - Studies
CRV - Cost Recovery
OKG - Organisational
MGM - Management & Staffing

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Annex 3

INDIA
NATIONAL SOCIAL FORESTRY PROJECT (CREDIT 1811-IN)

FINANCIAL INDICATORS

SCHEDULE OF DISBURSEMENTS
(SDR Million Cumulative)

Month, Year	SAR Estimate	Actual	Estimated	SAR/Actual %
FY 86				
Dec 1985	6.2	0.0		0
Jun 1986	22.7	10.7		47
FY 87				
Dec 1986	35.7	16.3		47
Jun 1987	50.9	24.7		48
FY 88				
Dec 1987	67.2	29.1		43
Jun 1988	84.7	43.1		50
FY 89				
Dec 1988	103.4	43.0		41
Jun 1989	123.1	63.3		51
FY 90				
Dec 1989	141.3	75.2		53
Jun 1990	153.1	79.8 /b		52
FY 91				
Dec 1990	166.4 / b		103.0	61
Jun 1991	164.4		116.0	70
FY 92				
Dec 1991	166.4		133.0	80
Jun 1992	166.4		155.0	93
FY 93				
Dec 1992	166.4		166.4	100

Effectiveness Date : 02/14/86
Closing Date : 12/31/90
Likely Closing Date : 03/31/93

a/ As of September 30, 1990, IDA disbursements were SDR 87.5 M. USAID disbursements on September 30, 1990 were US $ 47 M. IDA undisbursed balance is SDR 78.9 which is equivalent to US $ 110.5 M.

b/ Total SAR estimated till December 1990 is US $ 165.0 M.

(Approximate exchange rates 1 SDR = US $ 1.40
1 SDR = Rs.25.00)

INDIA
NATIONAL SOCIAL FORESTRY PROJECT (Credit 1611-IN)
GUJARAT SUB-PROJECT

Financial and Physical Plan for FY 1990-91 to 1992-93

Category	1990-91 Upto 12/90	1/3/91	Total	1991-92	1992-93	Physical 1990-91	1991-92	1992-93
I. Field Activities								
A. Agro-Forestry	(million seedlings)							
- Farm Forestry	25.00	12.00	37.00	46.20	47.20	140	140	140
- Private Wastelands	11.40	14.60	26.00	30.30	31.30	(hectares) 6362	6800	7200
B. Departmental Plantations								
- Community Woodlots (Rainfed)	26.50	26.30	52.80	59.20	69.20	4520	5000	5500
- Community Woodlots (Irrigated)	6.00	7.00	13.00	13.00	14.50	823	500	500
- Community Tree Fodder lots	0.70	1.60	2.30	5.90	5.10	491	800	1000
C. Departmental Plantations								
- Rehabilitation of Degarded Trees	24.00	36.00	60.00	115.00	120.00	8830	12000	15000
- Strip Plantations	30.00	21.00	51.00	34.00	35.00	2725	1500	1500
D. Wood-saving devices (Crematonia)	0.40	1.00	1.40	2.00	2.20	(number) 150	200	200
II. Incremental Staff Salaries	1.90	0.80	2.70	3.00	3.30			
III. Incremental Staff Travel Allowances	0.40	0.30	0.70	1.00	1.20			
IV. Office Expenses	1.00	0.40	1.40	1.60	1.80			
V. Civil Works, Buildings, Rent & Maintenance	2.50	6.00	8.50	10.50	10.50			

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Category	1990-91 Upto 12/90	1/3/91	Total	1991-92	1992-93
	1.20	2.90	4.10	5.60	5.00
VI. Vehicles, Equipment & Furniture	2.00	2.10	4.10	6.10	6.10
VII. Vehicles, Equipment & Maintenance	0.70	1.70	2.40	4.00	3.00
VIII. Consultancy Services, Studies, Training & Research	-	1.00	1.00	2.00	4.70
IX. Other Expenditures					
TOTAL	133.60	134.70	268.30	340.00	360.00

INDIA
NATIONAL SOCIAL FORESTRY I
(CR.1611-IN)

Status of Covenants

Page No. 1
7/14/90

Section	Summary Description	Type	Original Compliance Date	Revised Compliance Date	Level of Compliance	Remarks
3.10 AGR MIN	GOG to make adequate provision for vehicles and travel allowances to allow field staff to effectively carry out their extension responsibilities.	OGG	/ /	/ /	1	
3.10 AGR MIN	GOG should reduce free distribution of seedlings from 2,500 per family to 1,000 by 1985,800 by 1986,600 by 1987,400 by 1988, and 200 by 1989. The charge of seedlings should be increased to 10 paisa by 1987 and 20 paisa by 1989.	OGG	/ /	/ /	2	
3.2.02	After third year of planting but not later than 3.31.88 each State undertakes to carry a joint review of its subproject with borrower and IDA.	OGG	03/31/88	/ /	1	
3.2.03	Once a year each State will furnish IDA results of the M&E of its subproject.	OGG	/ /	/ /	3	The new World Bank/FAO/GOI guideline has been introduced, but Annual Reports for 1987/88 and 1988/89 are awaited.
3.2.04	At least every two years each State will revise/update its wood balance study.	OGG	/ /	/ /	1	
3.3.01C	Borrower shall make available out of proceeds of Credit an amount equivalent to SDR 62,300,000 to GOG.	OGG	/ /	/ /	1	
3.3.04A	GOI shall furnish IDA proposed structure of Central Forestry Organization.	OGG	04/30/86	06/30/87	1	
3.3.04B(i)	GOI shall sanction by 4.30.86 and fill by 10.31.86 the position of Head of the Central Social Forestry Organization.	NON	04/30/86	/ /	1	
3.3.04B(ii)	GOI shall maintain thereafter position of Head of the Central Social Forestry Organization and those of Chief Project Economist and Deputy I&E/Monitoring.	NON	10/31/86	/ /	1	

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Section	Summary Description	Type	Original Compliance Date	Revised Compliance Date	Level of Compliance	Remarks
GOU.4.01A2	Borrower shall cause its depts.& other agencies responsible for Part A of the project to furnish IDA not later than 9 months after each FY certified copies of their accounts & financial statements.	FIN	03/31/85	/ /	1	
GOU.4.01B	Borrower shall cause its departments & other agencies to furnish IDA immediately upon finalization report on audited accounts and financial statements.	AUD	03/31/86	/ /	1	
GOU.SH.2.01A	GOG To furnish information on private wasteland planting schemes,tree tenure schemes,community managed woodlots and tree fodder plantations which shall cover procedures for selecting participants.participants' rights & responsibilities, etc.	ORG	12/31/85	/ /	1	
GOU.SH.2.07	GOG shall maintain coordination committees for social forestry activities.	ORG	/ /	/ /	1	
GOU.SH.2.11	By 3.31.88, GOG to carry out a cost recovery study regarding social forestry seedlings' distribution & implement its findings.	STD	03/31/85	03/31/90	1	

Codes for Level of Compliance
1 - Fully complied
2 - Partially complied - not affecting implementation
3 - Non Compliance
4 - Not yet due
5 - Covenant no longer applicable - should be deleted/modified
6 - Compliance date requires revision
A1 - Audit 1 year over due
A2 - Audit 2 or more years over due

Codes for Type of Covenant
AUD - Audit
FIN - Financial
RPT - Reporting
TCH - Technical
STD - Studies
CRV - Cost Recovery
ORG - Organisational
MGM - Management & Staffing

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INDIA

NATIONAL SOCIAL FORESTRY PROJECT (CREDIT 1811-IN) (USAID 386-0495)

GUJARAT SUBPROJECT

SUMMARY STATUS RATING OF ACTIVITIES

		Status Rating by Mission 1/ This Mission (10/90)	Last Mission 2/ (02/90)
I	FIELD ACTIVITIES		
A.	Agroforestry (Private Lands)		
	Farm Forestry (Seedling Distribution)	1	1
	Private Wasteland Planting	1	1
B.	Community Wasteland Plantations		
	(Community Lands, Panchayat Managed)		
	Community Woodlots (Rainfed)	2	2
	Community Woodlots (Irrigated)	1	1
	Tree Fodder Plantation	3	3
C.	Government Wasteland Plantations		
	(Government Land, Government Managed)		
	Rehabilitation of Degraded Forests	2	2
	Strip Plantations	2	1
	Fuelwood Plantations	2	2
II	SUPPORT SERVICES		
	Incremental Staff	1	1
	Training	2	2
	Research and Studies	1	2
	Fellowship	3	3
	Monitoring and Evaluation	2	2
	Extension and Publicity	2	2
	Technical Assistance	2	2
	Studies	2	2
III	CIVIL WORKS, VEHICLES & EQUIPMENT		
	Construction of Buildings	3	3
	Construction of Training Facilities	2	2
	Vehicles and Equipment Procurement	1	1
	Crematoria and stoves	3	3
IV	AVAILABILITY OF FUNDS	1	2
V	DISBURSEMENTS	2	2
VI	PROJECT MANAGEMENT PERFORMANCE	2	2
VII	PROJECT DEVELOPMENT OBJECTIVES	2	2
VIII	COMPLIANCE WITH LEGAL COVENANTS	2	2
IX	FINANCIAL PERFORMANCE	2	2
X	ENVIRONMENTAL ASPECTS	2	2
XI	OVERALL STATUS	2	2

1/ Status Rating :

0 = not started
1= no significant problems
2= moderate problems
3= major problems, but being adequately addressed
4= major problems, not being addressed, and which require further action by implementing agency
C= activity completed
nr= activity not rated

2/ This is the first rating for this subproject

INDIA

NATIONAL SOCIAL FORESTRY PROJECT (Cr.1611-IN USAID 386-0495)

GUJARAT SUBPROJECT

KEY PHYSICAL INDICATORS

PROGRESS OF PLANTATIONS

(Hectares)

Category	SAR/PP/ a/ MTR Target	1985-86 b/ SAR/PP	1985-86 b/ Actual	1986-87 SAR/PP	1986-87 Actual	1987-88 MTR/d	1987-88 Actual	1988-89 SAR/PP	1988-89 Actual	1989-90 MTR	1989-90 Actual	1990-91 Target	1990-91 Actual /c	Total SAR/PP/ MTR /c	Total Actual	Total SAR/PP Actual %
A. Agro Forestry																
1. Farm Forestry	396066	40000	78000	40000	77300	40000	60000	60000	83300	60000	152333	93300	93300	336066	544233	153
2. Private Wastelands	27976	4600	3405	5600	3721	6100	3525	6700	7585	5400	3523	6300	6300	22576	28059	124
B. Community Wasteland Plantations																
1. Community Woodlots (Rainfed)	18584	4000	3839	4000	2932	4000	2504	3100	3665	3900	3262	4300	4300	14684	20502	139
2. Community Woodlots (Irrigated)	4786	1000	988	1000	659	1000	940	750	879	1000	867	700	700	3786	5033	133
3. Community Tree Fodder	600	1000	Nil	1500	Nil	2500	Nil	200	130	200	80	500	500	400	710	177
C. Government Wasteland Plantations																
1. Rehabilitation of Degraded Forests	36244	5200	5804	5700	4615	6500	5825	5000	6973	7500	7820	8800	8800	28744	36837	128
2. Strip	15221	3000	2868	3000	1878	3000	2170	2300	2769	3000	2700	2400	2400	12221	14785	120
3. Urban Fuelwo	835	400	375	400	100	500	360	Nil	Nil	Nil	Nil			835	835	100
Total	500312	59200	72001	61200	89988	63600	74409	78050	94298	81000	167338	116300	116300	419312	650994	155

a/ IDA Staff Appraisal Report/ USAID Project Paper

b/ 0 Year target brought to year 1 and consequently subsequent targets shifted by one year.

c/ Provisional

d/ Mid-Term Review

INDIA
NATIONAL SOCIAL FORESTRY PROJECT (Cr.1611-IN USAID 386-0495)

GUJARAT SUBPROJECT
KEY PHYSICAL INDICATORS
KEY INCREMENTAL STAFF DEPLOYMENT

Category	SAR/PP a/	Actual Oct-90	SAR/PP Actual %
Additional Chief Conservator of Forests	1		0
Conservator of Forests	2		0
Deputy Conservator of Forests	13	1	7
Assistant Conservator of Forests	11		0
Range Forest Officer	37	10	27
Deputy Ranger/Forester	22	15	68
Social Forestry Worker (at Guard level)	565	126	22
Total	651	152	23

a/ IDA Staff Appraisal Report/USAID Project Report

INDIA

NATIONAL SOCIAL FORESTRY PROJECT(Cr.1611-IN USAID 386-0495)

GUJARAT SUBPROJECT

KEY PHYSICAL INDICATORS

WOOD SAVING DEVICES

Category	Unit	1985-86		1986-87		1987-88		1988-89		1989-90		1990-91		Total		
		SAR/PP a/	Actual	SAR/PP	Actual	SAR/PP	Actual	MTR /b	Actual	MTR	Actual	MTR	Actual	SAR/PP/	Actual	SAR/PP/ Actual %
Stoves	No	2000	Nil	2000	Nil	2000	Nil	Nil	-	Nil	2	-	-	2000	2	0.2
Crematoria	No	200	Nil	200	Nil	200	Nil	131	Nil	131	60	-	-	261	60	23

a/ IDA Staff Appraisal Report/USAID Project Paper
b/ Mid-Term Review

INDIA
NATIONAL SOCIAL FORESTRY PROJECT (Cr.1611-IN)
GUJARAT SUBPROJECT

KEY PHYSICAL INDICATORS
VEHICLE PROCUREMENT

Category	1985-86		1986-87		1987-88		1988-89		1989-90		1990-91		Total		
	SAR /a	Actual	SAR	Actual	SAR	Actual	MTR	Actual	MTR	Actual (01/90)	Target	Actual	SAR	Actual	SAR/ Actual %
1. Car	2	-	1	-	1	-	-	-	-	2	2	2	4	2	50
2. Jeep	15	-	3	-	2	2	1	4	1	4	6	6	22	12	54
3. Van	3	-		-		1	-	-	-	1	1	1	3	2	66
4. Motorcycle	25	-	30	9	30	5	25	1	10	-	15	15	120	30	25
5. Tractor	-	-		-		4	-	1	-	1	4	4	-	9	-
6. Truck	-	-		-		-	-	-	-	-	4	4	-	4	-
Total	45		34	9	33	12	26	6	11	8	32	32	149	59	39

a/ IDA Staff Appraisal Report

INDIA
NATIONAL SOCIAL FORESTRY PROJECT (Cr.1611-IN)
GUJARAT SUBPROJECT

KEY PHYSICAL INDICATORS
CONSTRUCTION OF BUILDINGS

Category	Unit	1985-86		1986-87		1987-88		1988-89		1989-90		1990-91		Total		
		SAR/PP a/	Actual	SAR	Actual	SAR	Actual	MTR	Actual	Target	Actual	Target	Actual	SAR	Actual	SAR/ Actual %
1. Non-residential including Institute/Hostel	No	18	-	19	2	17	15	16	11	16	19	12	12	98	40	40
2. Residential	No	104	-	104	5	104	89	104	72	104	104	66	66	586	232	39
Total		122	-	123	7	121	104	120	83	120	123	78	78	684	272	39

a/ IDA Staff Appraisal Report

INDIA
NATIONAL SOCIAL FORESTRY PROJECT (Cr.1611-IN USAID 386-0495)
GUJARAT SUBPROJECT

KEY PHYSICAL INDICATORS
TRAINING

Category	1985-86		1986-87		1987-88		1988-89		1989-90		1990-91		Total		
	SAR/PP/a	Actual	SAR/PP	Actual	SAR/PP	Actual	SAR/PP	Actual	SAR/PP	Actual	Target	Actual (10/90)	SAR/PP	Actual (10/90)	SAR/PP/ Actual %
1. Domestic (No.) a. Through State Forestry Schools															
i) ACF	10	6	10	10.	10	2	10	8	10		10	-	50	26	52
ii) Range Officer	24	9	24	24	24	24	24	24	24	12	24	-	120	93	77
iii) Foresters	120	103	120	70	120	80	120	80	120	80	80	-	600	413	69
iv) Forest Guards	120		120	117	120	120	120	120	120	120	120	-	600	477	
b. State/Inter-State Tour/Training (No.)	15	12	15	10	15	3	15	1	15		15	-	75	26	35
2. International (No.)	7	3	7	5	6	6	6	1	6		-	-	32	15	47
3. Farmers Camps/ Visits (No.)	200	62 (3397) b/	200	957 (53717) b/	200	943 (69369) b/	200	528 (52216) b/	200	500 (30000) b/	500	-	1000	2282 (208649) b/	228

a/ IDA Staff Appraisal Report/USAID Project Paper
b/ Number of participants

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INDIA
NATIONAL SOCIAL FORESTRY PROJECT (CREDIT 1611-IN)
FINANCIAL INDICATORS

SCHEDULE OF DISBURSEMENT
(SDR Million Cumulative)

Month, Year	SAR Estimate	Actual	Estimated	SAR/Actual
FY 86				
Dec. 1985	6.2	0		0
Jun. 1986	22.7	10.7		47
FY 87				
Dec. 1986	35.7	16.3		47
Jun. 1987	50.9	24.7		48
FY 88				
Dec.1987	67.2	29.1		43
Jun. 1988	84.7	43.1		50
FY 89				
Dec. 1988	103.4	43		41
Jun. 1989	123.1	63.3		51
FY 90				
Dec. 1989	141.3	75.2		53
Jun. 1990	153.1	79.8/a		52
FY 91				
Dec. 1990	166.4/b		103.0	61
Jun.1991	166.4		118.0	70
FY 92				
Dec. 1991	166.4		133.0	80
Jun. 1992	166.4		155.0	93
FY 93				
Dec. 1992	166.4		166.4	100

Effective Date	02/04/1986
Closing Date	12/31/1990
Likely Closing date	12/31/1992

/a As of September 30, 1990 disbursements were SDR 87.5 M. As of September 30, 1 USAID disbursements were US $ 47 M.

/b Total SAR estimated disbursement till December 1990 is US $ 165.0 M,of which Gujarat subproject is US $ 62 M.

(Approximate exchange rate 1 SDR = US $ 1.40
1 SDR = Rs. 25.0)

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INDIA

NATIONAL SOCIAL FORESTRY PROJECT (Cr.1611-IN USAID 386-0495)

GUJARAT SUBPROJECT

FINANCIAL ACHIEVEMENTS

Sr. No.	Category	1985-86 SAR/PP a/	1985-86 Actual	1986-87 SAR/PP	1986-87 Actual	1987-88 SAR/PP	1987-88 Actual	1988-89 SAR/PP	1988-89 Actual	1989-90 SAR/PP	1989-90 Actual	1990-91 Target	1990-91 Actual (7/90)	Total SAR/PP	Total Actual (7/90)	Total SAR/PP Actual %
1	Field Activity	202.27	95.44	197.50	97.11	235.63	114.79	284.23	170.72	240.30	172.24	-	49.55	1159.93	699.85	60
2	Incremental staff	7.27	1.21	9.26	1.41	11.28	1.38	12.04	0.61	12.04	0.80 b/	-	27.01 b/	51.89	32.42 b/	62
3	Travelling Allowance	0.77	2.66	0.92	0.20	1.06	1.06	0.93	1.42	0.98	2.49 b/	-	1.84 b/	4.60	9.67 b/	210
4	Civil Works	7.63	0.58	8.43	1.12	9.02	5.71	3.75	3.36	3.97	8.86	-	1.62	32.80	21.25 b/	58
5	Vehicles furniture & Equp	4.77	0.37	1.55	0.55	1.35	0.09	0.71	0.19	0.56	1.41	-	0.01	8.94	2.62	29
6	Vehicles operation & maintenance	1.19	4.82	1.39	5.04	1.60	4.83	1.29	4.26	1.29	5.42	-	1.74	6.75	26.14	388
7	Consultant Services, Training, Studies, TA	1.89	0.48	2.15	0.93	2.21	1.45	2.71	0.68	2.60	2.11	-	0.26	11.56	5.91	51
8	Office and other exp.	2.63		2.98		3.33		5.22		5.72	2.90 b/	-	2.00	19.88	4.90 b/	24
	Total	228.42	105.56	224.10	106.38	265.48	129.34	310.90	181.26	267.50	196.23 b/		84.03	1296.36	802.80 b/	61

a/ IDA Staff Appraisal Report/USAID Project Paper

b/ Provisional

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INDIA
NATIONAL SOCIAL FORESTRY PROJECT (CREDIT 1611-IN)
(USAID 386-0495)
GUJARAT SUBPROJECT

STATUS OF REPORTING
SIX MONTHLY PROGRESS REPORT

Report for Period Ending	Month due	Received/Overdue
March 1982 to March 1987	June 1982 to June 1987	Received
September 1987	December 1987	November 1987
March 1988	June 1988	May 1988
September 1988	December 1988	January 1989
March 1989	June 1989	June 1989
September 1989	December 1989	December 1989.
March 1990	June 1990	June 1990
September 1990	December 1990	Not yet due

ANNUAL MONITORING & EVALUATION REPORT

March 1982 to March 1986	Dec. 1982 to Dec. 1986	Received
March 1987	December 1987	December 1987
March 1988	December 1988	Overdue
March 1989	December 1989	Overdue
March 1990	December 1990	Not yet due

CERTIFIED ANNUAL ACCOUNTS

Year	Due Date	Received/Overdue
1984-85 to 1987-88	December 1985 to December 1988	Received
1988-89	December 1989	Received July 1990
1989-90	December 1990	Not yet due

CERTIFIED STATEMENTS OF EXPENDITURE (SOE)

1984-85 to 1987-88	December 1985 to December 1988	Received
1988-89	December 1989	Received July 1990
1989-90	December 1990	Not yet due

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Annexure - 5

INDIA

NATIONAL SOCIAL FORESTRY PROJECT
(Credit 1611-IN, USAID 386-0495)

Rajasthan Sub-project

Action Plan: (a) Financial)

(Rs. million)

Name of the Scheme	Year					Total
	upto 12/90	1990-91 01-03/91	Total	1991-92	1992-93	
I. Field Activity						
a. Agro Forestry						
1. Farm Forestry	5.0	10.8	15.8	10.2	2.7	28.7
2. Improved Orchard	0.1	-	0.1	0.2	0.2	0.5
b. Tree Tenure for poor and landless						
1. Group Farm Forestry	-	0.1	0.1	0.2	0.1	0.4
c. Planting on Community Waste Land						
1. Community Woodlot	39.1	9.3	48.4	42.1	25.6	116.1
d. Planting on Govt. Waste Land						
1. Rehabilitation of Deg Forest	34.8	13.3	48.1	63.3	48.5	159.9
2. Strip Plantations	5.7	4.0	9.7	7.1	4.1	20.9
d. Wood Saving Device (Cremetoria)	-	0.1	0.1	0.1	0.1	0.3
II. Incremental Staff	16.0	7.0	23.0	25.3	29.0	77.3
III. Incremental Allowan	0.5	0.4	0.9	1.0	1.0	2.9
IV. Civil Works	0.5	1.4	1.9	3.0	0.5	5.4
V. Vehicle, Equipment	-	4.2	4.2	3.5	0.4	8.1
VI. Vehicle Operation	0.8	0.4	1.2	2.0	2.3	5.5
VII. Contingencies, Study Research and Training	0.8	2.0	2.8	3.5	3.5	9.8
VIII. Office & Other Exp.	0.8	0.9	1.7	2.0	2.0	5.7
Total	104.2	53.8	158.0	163.5	120.0	441.5

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NATIONAL SOCIAL FORESTRY PROJECT
(Credit 1611-IN, USAID 386-0495)

Rajasthan Sub-project

Action Plan: (b) Physical

Name of the Scheme		Year			
		1990-91	1991-92	1992-93	Total
I.	Field Activity				
a.	Agro Forestry				
1.	Farm Forestry (million seedlings)	24.7	21.4	10	52.1
2.	Improved Orchard (million seedlings)	0.05	0.1	0.1	0.25
	Sub-total	24.75	21.5	10.1	52.35
b.	Tree Tenure for poor and landless:				
1.	Group FF (Ha.)	50	50	50	150
c.	Planting on Community Waste Land				
1.	Community Woodlot Rainfed (Ha.)	5125	3100	1995	10220
2.	Community Woodlot Irrigated (Ha.)	2180	200	200	2580
d.	Planting on Govt. Waste Land				
1.	Rehabilitation of Degraded Forest (Ha.)	10714	6200	6900	23814
2.	Strip Plantation (Ha.)	410	50	50	510
	Sub-total	18489	9600	9195	37284
e.	Wood Saving Device (Cremetoria) (No.)	10	10	10	30
	Sub-total	10	10	10	30

INDIA
NATIONAL SOCIAL FORESTRY 1
(CR.1611-IN)

Status of Covenants

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Section	Summary Description	Type	Original Compliance Date	Revised Compliance Date	Level of Compliance	Remarks
GAU.10 AGR MIN	GOR should make adequate provision for vehicles and travel allowances to allow field staff to effectively carry out their extension responsibilities;	ORG	/ /	/ /	2	See Section HP.10 AGR MIN.
GAU.10 AGR MIN	GOR should limit free distribution of seedlings per family to 1,000 by 1987, and 500 by 1989 and should charge 5 paisa per seedling by 1987, 10 paisa by 1988, and 15 paisa by 1989.	ORG	/ /	/ /	1	
GAU.3.01C	Borrower shall make available out of proceeds of Credit an amount equivalent to SDR 16,700,000 to Rajasthan	ORG	/ /	/ /	1	
GAU.3.04A	GOI shall furnish IDA proposed structure of Central Forestry Organization.	ORG	04/30/86	06/30/89	1	
GAU.3.04B	GOI shall sanction by 4.30.86 and fill by 10.31.86 the position of Head of the Central Social Forestry Organization.	MAN	04/30/86	06/30/89	1	
GAU.3.04C	GOI shall maintain thereafter position of Head of the Central Social Forestry Organization and those of Chief Project Economist and Deputy IGF/Monitoring.	MAN	10/31/86	06/30/89	1	
GAU.4.01A2	GOR shall cause its depts.& other agencies responsible for Part A of the project to furnish IDA not later than 9 months after each FY certified copies of their accounts & financial statements.	FIN	03/31/80	/ /	1	
GAU.4.01B2	GOR shall cause its depts.& other agencies to furnish IDA immediately upon finalization report on audited accounts & financial statements.	ADT	03/31/80	/ /	1	
GAU.94.2.01A	GOR shall furnish information on private wasteland planting schemes, tree tenure schemes, community managed woodlots & tree fodder plantations to cover procedures for selecting participants, rights & responsibilities of participants, etc.	ORG	12/31/85	04/30/88	1	

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Section	Summary Description	Type	Original Compliance Date	Revised Compliance Date	Level of Compliance	Remarks
MAJ.SH.2.02	After third year of planting but not later than 3.31.88 GOR undertakes to carry a joint review of its subproject with borrower and IDA.	ORG	03/31/88	03/31/88	1	
MAJ.SH.2.03	Once a year GOR will furnish IDA results of the M&E of its subproject.	ORG	/ /	07/31/89	2	First report in Hindi version has been prepared. English version is awaited.
MAJ.SH.2.04	At least every two years GOR will revise/update its wood balance study.	STD	/ /	11/30/90	1	USAID has contracted a marketing study.
MAJ.SH.2.06	By 12.31.85 GOR shall sanction the position of Conservator of Forests for Planning, M&E.	ORG	12/31/85	/ /	1	
MAJ.SH.2.09	GOR shall maintain coordination committees for social forestry activities.	ORG	/ /	/ /	1	
MAJ.SH.2.10	By 3.31.88 GOR shall carry out a study of the organizational issues in State Forest Departments.	STD	03/31/88	12/31/90	2	Four more Divisions are likely to be added to the project by adjustment within the existing Divisions.
MAJ.SH.2.11	By 3.31.89 GOR shall carry out a cost recovery study regarding social forestry seedlings' distribution & implement its findings.	STD	03/31/89	09/30/90	1	US AID contracted study has been completed.

Codes for Level of Compliance
1 - Fully complied
2 - Partially complied - not affecting implementation
3 - Non Compliance
4 - Not yet due
5 - Covenant no longer applicable - should be deleted/modified
6 - Compliance date requires revision
A1 - Audit 1 year over due
A2 - Audit 2 or more years over due

Codes for Type of Covenant
AUD - Audit
FIN - Financial
RPT - Reporting
TCH - Technical
STD - Studies
CRV - Cost Recovery
ORG - Organisational
MAN - Management & Staffing

PAGES

INDIA

NATIONAL SOCIAL FORESTRY PROJECT (CREDIT 1611-IN) (USAID 386-0495)

RAJASTHAN SUBPROJECT

SUMMARY STATUS RATING OF ACTIVITIES

		Status Rating by Mission 1/ This Mission (10/90)	Last Mission 2/ (04/90)
1	FIELD ACTIVITIES		
A.	Agroforestry (Private Lands)		
	Farm Forestry (Seedling Distribution)	3	3
	Private Wasteland Planting	3	3
B.	Community Wasteland Plantations (Community Lands, Panchayat Managed)		
	Community Woodlots (Rainfed)	2	2
C.	Government Wasteland Plantations (Government Land, Government Managed)		
	Rehabilitation of Degraded Forests	2	2
	Strip Plantations	2	2
II	SUPPORT SERVICES		
	Incremental Staff	2	2
	Training	2	2
	Research	1	1
	Fellowship	3	3
	Monitoring and Evaluation	2	2
	Extension and Publicity	2	2
	Technical Assistance	3	3
	Studies	2	2
III	CIVIL WORKS, VEHICLES & EQUIPMENT		
	Construction of Buildings	3	3
	Construction of Training Facilities	3	3
	Vehicles and Equipment Procurement	1	1
	Crematoria and stoves	2	2
IV	BUDGET FINANCE	1	1
V	MANAGEMENT	2	2
VI	DISBURSEMENT	2	3
VII	PROJECT DEVELOPMENT	2	2
VIII	COMPLIANCE WITH COVENANTS	2	3
IX	PROCUREMENT	2	2
X	AUDIT AND ACCOUNTS	1	1
XI	ENVIRONMENTAL ASPECTS	2	2
XII	OVERALL STATUS	2	2

1/ Status Rating :

0 = not started
1= no significant problems
2= moderate problems
3= major problems. but being adequately addressed
4= major problems, not being addressed, and which require further action by implementing agency
C= activity completed
nr= activity not rated

2/ This is the first rating for this subproject

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NATIONAL SOCIAL FORESTRY PROJECT (CREDIT 1611-IN USAID 386-0495)
RAJASTHAN SUB PROJECT

KEY PHYSICAL INDICATORS
PROGRESS OF PLANTING

Category	1985-86 SAR/PP ##	1985-86 Actual	1986-87 SAR/PP	1986-87 Actual	1987-88 SAR/PP	1987-88 Actual	1987-88 MTR **	1988-89 Actual	1988-89 MTR	1989-90 Actual	1990-91 Target	1990-91 Actual (7/90)	Total Target	Total Actual	SAR/PP/MTR Actual %
1. Nursery						(Million Seedlings)									
(a) Departmental	25.00	26.70	30.00	22.00	30.00	12.30	16.40	12.30	16.40	20.70	-	-	117.80	94.00	80
(b) Kissan	-	-		-	-	3.40	-	4.10	-	4.10	-	-	-	11.60	-
Total (1)	25.00	26.70	30.00	22.00	30.00	15.70	16.40	16.40	16.40	24.80	-	-	117.80	105.60	89
2. Agro-forestry															
(a) Farm forestry	25.00	-	25.00	26.00	30.00	18.70	16.40	15.70	16.40	14.30	16.40	0.50	129.20	75.20	58
(b) Improved Ber	0.08	-	0.09	0.04	0.10	0.06	0.10	0.04	0.10	0.05	0.10	0.01	0.57	0.20	35
Total (2)	25.08	-	25.09	26.04	30.10	18.76	16.50	15.74	16.50	14.35	16.50	0.51	129.77	75.40	48
3. Tree Tenure															
Household								(Hectares)							
Farm Forestry	-	-	500	191	1500	255	455	224	50	50	-	-	250	720	28
4. Community Woodlots	-	-	1000	1002	1000	1002	3420	3438	750	1485	750	4938	6920	11065	171
5. Govt.Wasteland Plantations															
(a) Rehabilitation of Degraded forests	-	-	4000	3950	5000	3347	7972	7139	692	3463	692	6147	18356	24046	131
(b) Roadside	300	302	400	400	500	160	100	95	100	105	100	30	1500	1092	73
(c) Canalside	-	-	60	60	70	50	50	50	50	35	50	50	280	245	87
(d) Railside	-	-	200	200	200	50	50	50	50	60	50	213	550	573	104
(e) Flood Control	-	-	200	200	100	100	-	60	-	-	-	-	300	360	120
Total (3 to 5)	300	302	6360	5003	8370	4964	12047	11056	1692	5198	1642	11378	30411	38901	125

IDA Staff Appraisal Report/AID Project Paper
** Mid-Term Review

INDIA

NATIONAL SOCIAL FORESTRY PROJECT (CREDIT 1611-IN USAID 386-0495)
RAJASTHAN SUB PROJECT

KEY PHYSICAL INDICATORS
(a) POSITIONING OF KEY STAFF

Category	1985-86		1986-87		1987-88		1988-89		1989-90		1990-91		Total	SAR/PP
	SAR/PP	Actual a/	SAR/PP	Actual a/	SAR/PP	Actual	SAR/PP MTR a/	Actual a/	SAR/PP/ MTR	Actual a/	Target	Actual	SAR/PP/ MTR	Actual, Actual %
Chief Conservator of Forest:	1	1	11	1	1	1	1	1	1	1	1	1	1	1
Conservator of Forests	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Dty Conservator of Forests	27	18	27	18	28	18	18/b	18	18	18	18	18	18	18
Asst.Conservator of Forests	8	2	8	2	8	6	8	6	8	6	8	7	8	7
Range Forest Officer	26	33	35	41	52	41	60	41	60	41	60	41	60	41
Deputy Ranger/Forester	22	3	22	13	22	13	22	13	22	13	22	13	22	13
Forester	71	59	75	91	98	110	118	110	118	110	118	110	118	110
Forest Guard	225	148	326	264	463	264	581	264	581	310	581	310	581	310
Total	411	265	495	431	673	454	809	454	809	500	809	501	809	501

a/ Cumulative
b/ Reduced atg the MTR

(b) TRAINING

1. Staff Domestic (No.)												
(a) Through Forestry Schools												
- ACF and above						26		14		21	-	
- Range Officers						16		-		36	-	12
- Foresters	90	66	150	105	120	158	120	82	120	81	-	12
- Forest Guards	194	181	255	228	160	69	160	48	160	75	-	17
(b) State/Inter-State tour training (No.)	10	1	10	21	10	13	10		10	14		
2. Farmers through camps/ Study tour/Village meeting	2940	-	5580	5148	5580	7882	5580	626	5580	5000		
3 Others (NGOs etc.)												
4. International (No.) (Short/Long-term)	2	-	2	3	2	7	2	1	2	3	-	1286

INDIA

NATIONAL SOCIAL FORESTRY PROJECT (CREDIT 1611-IN USAID 386-0495)
RAJASTHAN SUB PROJECT

KEY PHYSICAL INDICATORS

(c) CONSTRUCTION OF BUILDINGS

Category	1985-86		1986-87		1987-88		1988-89		1989-90		1990-91		Total		
	SAR/PP	Actual	SAR/PP a/	Actual	SAR/PP a/	Actual	SAR/PP/ MTR a/	Actual a/	SAR/PP/ MTR	Actual a/	Target	Actual	SAR/PP/ MTR	Actual	SAR/PP Actual %
1. Non-residential buildings (No.) (including institute/ hostel)	19	14	20	7	-	4	-	-	-	1	-	-	39	26	66
2. Residential (No.)	58	28	50	13	42	-	24	-	24	2	-	-	198	43	21
Total	77	42	70	20	42	4	24	-	24	3	-	-	237	69	29

(d) PROCUREMENT OF VEHICLES

Car	2	2	-	-	-	-	-	-	-	1	-	-	2	3	50
Jeep	26	21	1	-	-	-	-	-	-	2	-	-	27	23	55
Truck	17	-	2	1	1	-	-	-	-	3	-	-	20	4	20
Bus	2	1	-	1	-	-	-	-	-	-	-	-	2	2	100
Tractor	26	10	26	10	-	-	-	-	-	-	-	-	52	20	38
Publicity Van	2	1	-	1	-	-	-	-	-	-	-	-	2	2	100
Motorcycle	40	21	12	17	16	-	8	-	16	3	-	-	92	41	44
Bicycle	300	-	75	-	160	-	138	-	127	30	-	-	800	30	4
Total	415	56	116	30	177	-	146	-	143	39	-	-	997	125	12

(e) FUEL SAVING DEVICES

Crematoria	10	7	25	22	40	27	40	28	21	30	-	-	136	86	63

a/ Cumulative

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INDIA

NATIONAL SOCIAL FORESTRY PROJECT (CREDIT 1611-IN USAID 386-0495)
RAJASTHAN SUB PROJECT

KEY FINANCIAL INDICATORS
(a) SAR/PP ESTIMATED EXPENDITURES AND ACTUALS

(Rupees Million)

Category	1985-86		1986-87		1987-88		1988-89		1989-90		1990-91		Total		
	SAR/PP	Actual	SAR/PP	Actual	SAR/PP	Actual	SAR/PP/	Actual	SAR/PP/	Actual	Estimate	Actual (6/90)	SAR/PP	Actual	SAR/PP Actual %
1. Civil Works	7.00	2.00	4.60	2.00	3.10	1.30	1.60	0.20	0.20	0.20	-	-	16.3	6.00	37
2. Vehicles	11.20	3.40	3.90	2.10	0.70	0.70	0.20	-	1.60	1.60	-	-	16.00	6.20	39
3. Equipment	2.60	1.00	0.80	1.00	0.30	0.20	0.30	0.20	0.05	0.06	-	-	4.00	2.40	60
4. Furniture	0.70	0.20	0.10	0.10	0.20	0.00	0.10	0.00	-	-	-	-	1.10	0.30	27
5. Training (incl.fellowships abroad)	0.50	0.10	0.70	0.50	0.70	0.90	0.90	0.20	0.30	0.30	-	-	2.80	0.40	14
6. Technical Assistance	0.10	0.00	0.10	0.00	0.10	0.00	0.10	0.00	-	-	-	-	0.40	0.00	0
7. Special Studies & Evaluatio	0.10	0.00	0.10	0.00	0.10	0.00	0.10	0.00	-	-	-	-	0.40	0.00	0
8. Research	0.10	0.00	0.20	0.10	0.10	0.00	0.20	0.10	1.50	1.50	-	-	2.10	0.20	9
9. Plantations	23.40	20.40	46.00	35.00	57.90	55.10	78.90	31.00	77.30	71.30	-	5.10	267.10	146.60	55
10. Fuel Saving Devices	0.10	0.10	0.10	0.20	0.30	0.20	0.10	0.10	0.20	0.20	-	-	0.80	0.60	75
11. Staff Salaries	4.70	4.00	11.00	8.50	14.00	13.20	18.00	12.80	19.10	19.10	-	4.60	66.80	43.10	64
12. Staff Travel Expenses	0.20	0.10	0.50	0.50	0.60	0.60	0.90	0.30	0.60	0.60	-	0.10	2.80	1.60	57
13. Building rent & maintenanc	0.00	0.00	0.00	0.10	0.10	0.00	0.10	0.10	0.20	0.20	-	-	0.40	0.20	50
14. Vehicle Operation & maintenance	0.40	0.10	0.90	0.40	1.00	0.60	1.30	0.30	0.80	0.80	-	0.10	4.50	1.50	33
15. Office & other expenses	3.50	1.10	0.50	0.90	0.60	1.00	0.90	0.40	1.30	1.30	-	0.20	6.80	3.60	53
16. Contingencies	4.10		5.70		6.60		8.60		8.60		-	0.20	33.60	0.20	1
Total	54.30	32.50	75.20	51.40	86.40	73.20	112.30	45.70	117.76	97.56	158.00	10.30	597.96	330.50	55
	2.70 a/														
	57.00														

a/ 1984-85 retroactive funding

INDIA

NATIONAL SOCIAL FORESTRY PROJECT (CREDIT 1611-IN USAID 386-0495)
RAJASTHAN SUB PROJECT

KEY FINANCIAL INDICATORS
(b) BUDGET SANCTIONS AND ACTUAL EXPENDITURES

(Rupees Million)

1985-86			1986-87			1987-88			1988-89			1989-90			1990-91			Total		% of Actuals to	
SAR/PP	Budget Sanction	Actual	SAR/PP	Budget Sanction	Actual	SAR/PP	Budget Sanction	Actual	SAR/PP	Budget Sanction	Actual	SAR/PP	Budget Sanction	Actual	Budget Sanction	Actual (6/90)	SAR/PP	Budget Sanction	Actual	SAR/PP	Budget Sanction
54.3	33.0	32.5	75.2	52.8	51.4	86.4	74.5	73.2	112.3	67.7	45.7	118.8	97.5	97.5	158.0	10.3	597.96	483.5	330.5	55.0	68.0

(5)

INDIA

NATIONAL SOCIAL FORESTRY PROJECT (CREDIT 1611-IN)
RAJASTHAN SUBPROJECT

KEY FINANCIAL INDICATORS
SCHEDULE OF DISBURSEMENTS
(SDR Million Cumulative)

Month, Year	SAR Estimate	Actual	Estimated	SAR/Actual %
FY86				
Dec 1985	6.2	0		0
Jun 1986	22.7	10.7		47
FY87				
Dec 1986	35.7	16.3		47
Jun 1987	50.9	24.7		48
FY88				
Dec 1987	67.2	29.1		43
Jun 1988	84.7	43.1		50
FY89				
Dec 1988	103.4	43.0		41
Jun 1989	123.1	63.3		51
FY90				
Dec 1989	141.3	75.2		53
Jun 1990	153.1	79.8 b/		52
FY91				
Dec 1990	166.4 a/		103.0	61
Jun 1991	166.4		118.0	70
FY92				
Dec 1991	166.4		133.0	80
Jun 1992	166.4		155.0	93
FY93				
Dec 1992	166.4		166.4	100

Effectiveness Date: 02/19/1986
Closing Date: 12/31/1990
Likeely Closing Date: 03/31/1993

(Approximate exchange rates 1 SDR = US$ 1.40
1 SDR = Rs. 25.0)

a/ Total SAR estimated till December 1990 is US$ 165.0 M of which Rajasthan subproject is US$ 14 M.

b/ IDA disbursement upto September 30, 1990 is SDR 87.5 M. AID disbursement upto Sept.30, 1990 is US$ 47 M.

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INDIA

NATIONAL SOCIAL FORESTRY PROJECT (CREDIT 1611-IN)
(USAID 386-0495)

RAJASTHAN SUBPROJECT

STATUS OF REPORTS

(a) SEMI-ANNUAL PROGRESS REPORTS

Period ending	Date due	Received/Overdue
09/85	12/85	]
		]
03/86	06/86	] Received
09/86	12/86	]
03/87	06/87	06/87
09/87	12/87	12/87
03/88	06/88	06/88
09/88	12/88	01/89
03/89	06/89	12/89
06/89	09/89	04/90
03/90	06/90	06/90
06/90	09/90	10/90
09/90	12/90	Not yet due

(b) ANNUAL MONITORING AND EVALUATION REPORT

03/86	06/86	]
		]
03/87	06/87	] Received
03/88	06/88	] Hindi version has been prepared,
03/89	06/89	] English translation is awaited
03/90	06/90	Overdue

INDIA

NATIONAL SOCIAL FORESTRY PROJECT (CREDIT 1611-IN)
(USAID 386-0495)

RAJASTHAN SUBPROJECT

STATUS OF REPORTS

(a) CERTIFIED ANNUAL ACOUNTS

Year	Due Date	Received/Overdue
1985-86	December 1986	Received in time
1986-87	December 1987	
1987-88	December 1988	
1988-89	December 1989	Received April 1990
1989-90	December 1990	Not yet due

(b) CERTIFIED STATEMENT OF EXPENDITURE (SOE)

1985-86	December 1986	Received in time
1986-87	December 1987	
1987-88	December 1988	
1988-89	December 1989	Received April 1990
1989-90	December 1990	Not yet due

Annexure-6

Uttar Pradesh Sub-Project

Components	HA 1990-91	1991-92	1992-93
Farm Forestry	20,000	20,000	20,000
Community Woodlots	1,755	1,755	1,755
Wasteland Planting			
(a) Strip	1,500	1,500	1,500
(b) RDF	6,940	7,000	7,000
(c) Tree Tenure	900	1,500	1,500

Estimated Financial Requirement	Rs. in million
1990-91	490
1991-92	600
1992-93	500

INDIA
NATIONAL SOCIAL FORESTRY I
(CR.1611-IN)

Status of Covenants

File No. 1
11/14/90

Section	Summary Description	Type	Original Compliance Date	Revised Compliance Date	Level of Compliance	Remarks
UP.10 FGR MIN	GOUP should make adequate provision for vehicles and travel allowances to allow field staff to effectively carry out their extension responsibilities.	ORG	/ /	/ /	2	
UP.10 PGR MIN	GOUP should raise charge per seedling to 25 paisa by 1987 and 30 paisa by 1988.	ORG	/ /	/ /	1	
UP.3.01C	Borrower shall make available out of proceeds of Credit an amount equivalent to SDR 61,500,000 to UP.	ORG	/ /	/ /	1	
UP.2.04A	GOI shall furnish IDA proposed structure of Central Forestry Organization.	ORG	04/30/86	06/30/89	1	
UP.2.04B(i)	GOI shall sanction by 4.30.86 and fill by 10.31.86 the position of Head of the Central Social Forestry Organization.	MAN	04/30/86	/ /	1	
UP.2.04B(ii)	GOI shall maintain thereafter position of Head of the Central Social Forestry Organization and those of Chief Project Economist and Deputy IGF/Monitoring.	MAN	10/31/86	/ /	1	
UP.4.01A2	GOUP shall cause its depts. & other agencies responsible for Part A of the project to furnish IDA not later than 9 months after each FY certified copies of their accounts & financial statements.	FIN	03/31/88	/ /	1	
UP.4.01B2	GOUP shall cause its depts.& other agencies to furnish IDA immediately upon finalization report on audited accounts & financial statements.	ADT	03/31/88	/ /	1	
UP.4.2.01A	GOUP shall furnish information on private wasteland planting schemes, tree tenure schemes, community managed woodlots & tree fodder plantations to cover procedures for selecting participants, rights & responsibilities of said participants. etc.	ORG	12/31/85	/ /	1	

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Section	Summary Description	Type	Original Compliance Date	Revised Compliance Date	Level of Compliance	Remarks
AP.SH.2.02	After third veear of planting but not later than 3.31.88 GOUP undertakes to carry a joint review of its subproject with borrower and IDA.	ORG	03/31/88	/ /	1	
AP.SH.2.03	Once a year GOUP will furnish IDA results of the M&E of its subproject.	ORG	/ /	/ /	2	Done upto 1986 plantings in public lands, and the report published in 03/90. For farm and non-farm plantings contracted report for the years 1983-87 published in 3/90.
UP.SH.2.04	At least every two years GOUP will revise/update its wood balance study.	STD	/ /	12/31/90	2	USAID has appointed consultants for the study.
AP.SH.2.07	By 12.31.85 UP shall sanction the position of Additional Conservator of Forests and a Conservator of Forests for planning.	MAN	12/31/85	/ /	1	
P.SH.2.09	GOUP shall maintain coordination committees for social forestry activities.	ORG	/ /	/ /	2	
P.SH.2.11	By 3.31.88 GOUP shall carry out a cost recovery study regarding social forestry seedlings' distribution & implement its findings.	STD	03/31/88	12/31/90	2	GOUP has contracted the study to a consultant. Final draft yet to be received.

Codes for Level of Compliance
- Fully complied
- Partially complied - not affecting implementation
- Non Compliance
- Not yet due
- Covenant no longer applicable - should be deleted/modified
- Compliance date requires revision
1 - Audit 1 year over due
2 - Audit 2 or more years over due

Codes for Type of Covenant
AUT - Audit
FIN - Financial
RPT - Reporting
TCH - Technical
STD - Studies
CRY - Cost Recovery
ORG - Organisational
MAN - Management & Staffing

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NATIONAL SOCIAL FORESTRY PROJECT (CREDIT 1611-IN)
(USAID 386-0495)
UTTAR PRADESH SUBPROJECT

SUMMARY STATUS RATING OF PROJECT EXECUTION

		Status Rating by Mission 1/	
		This Mission (10/90)	Last Mission (3/90)
I	FIELD ACTIVITIES		
A.	Agroforestry (Private Lands)		
	Farm Forestry (Seedling Distribution)	2	2
	Private Wasteland Planting	3	3
B.	Tree Tenure, Poor and Landless (Government Lands, Beneficiary Managed)		
	Strip Plantation	2	2
	Group Farm/Forestry	3	3
	Arjun Plantation	2	2
C.	Community Wasteland Plantations (Community Lands, Panchayat Managed)		
	Community Woodlots (Rainfed)	2	2
D.	Government Wasteland Plantations		
	Rehabilitation of Degraded Forests	2	2
	Strip Plantations	2	2
II	SUPPORT SERVICES		
	Incremental Staff	2	2
	Training	1	1
	Research and Studies	2	2
	Fellowship	3	3
	Monitoring and Evaluation	2	2
	Extension and Publicity	2	2
	Technical Assistance	3	2
	Studies	3	2
III	CIVIL WORKS, VEHICLES AND EQUIPMENT		
	Construction of Buildings	2	2
	Construction of Training Facilities	1	1
	Vehicles and Equipment Procurement	2	2

INDIA

NATIONAL SOCIAL FORESTRY PROJECT (CREDIT 1611-IN)
(USAID 386-0495)
UTTAT PRADESH SUBPROJECT

SUMMARY STATUS RATING OF ACTIVITIES

		Status Rating by Mission 1/	
		This Mission (10/90)	Last Mission (03/90)
IV	BUDGET, FINANCE	2	2
V	MANAGEMENT	2	2
VI	DISBURSEMENTS	3	2
VII	PROJECT DEVELOPMENT	2	2
VIII	COMPLIANCE WITH COVENANTS	2	2
IX	ENVIRONMENTAL ASPECTS	2	2
X	AUDIT AND ACCOUNTS	1	1
XI	OVERALL STATUS	2	2

1/ Status rating:
0 = not started
1 = no significant problems
2 = moderate problems
3 = major problems, but being adequately addressed
4 = major problems, not being addressed, and which require further action by implementing agency
C = activity completed
nr = activity not rated

INDIA

NATIONAL SOCIAL FORESTRY PROJECT (CREDIT 1611-IN USAID 386-0495)

UTTAR PRADESH SUBPROJECT

KEY PHYSICAL INDICATORS

PROGRESS OF PLANTINGS

(Hectares)

Category	SAR/PP/a	MTR/b	1985-86 SAR/PP	1985-86 Actual	1986-87 SAR/PP	1986-87 Actual	1987-88 SAR/PP	1987-88 Actual	1988-89 MTR b/	1988-89 Actual	1989-90 MTR	1989-90 Actual	1990-91/h Actual	Total SAR/PP	Total Actual %
A. Agro-forestry (Private lands)															
1 Farm Forestry	134000	191667	21333+ 20677 for 0 yr	42010	22000	22000	22667	22677	35000	35000	35000	35000	21350	178037	133
B. Tree Tenure. Poor & Landless (Government Lands, Beneficiary Managed)	13210	1500	340	-	1350	-	2460	-	500	162	500	396	900	1458	11
C. Community Wasteland Plantations															
1 Community Woodlots (Rainfed)	14000	10117	5000	1997	4000	1874	3000	2895	1117	1117/c	1117	5760/f	1755	15398	110
D. Govt. Wasteland Plantations															
1 Rehabilitation of Degraded Forests	-	20000	-	-	-	-	5000	2431/d	5000	5232	5000	7101/g	6940	21704	-
2 Strip Plantation	740	4370	250	250/e	240	240/e	130	130/e	1500	750/d	750	3904/d	1500	6774	915
Total	161950	227654	47600	44257	27590	24114	33257	28133	42367	42261	43117	52161	32445	223371	138

a/ IDA Staff Appraisal Report/USAID Project Paper
b/ Mid-term Review (MTR) of February 1988
c/ Actually done 3997 ha but admitted 1117 ha by the MTR
d/ Actually done 2408 ha in 1988 but admitted 750 ha in accordance with the MTR
e/ Actually done 2408 ha, 3667 ha and 2132 ha in 1985, 1986 and 1987 respectively, but the MTR admitted 250 ha,240 ha and 130 ha in corresponding years
f/ Includes 4000 ha for which advance preparations were done from extra-project funds
g/ Includes 2000 ha for which advance preparations were done from extra-project funds
h/ MTR did not provide any target for 1990-91. Figures quoted have been agreed to by the state and the Bank/USAID

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INDIA
NATIONAL SOCIAL FORESTRY PROJECT (CREDIT 1611-IN USAID 346-0495)
UTTAR PRADESH SUBPROJECT

KEY PHYSICAL INDICATORS

NO. OF NON-DEPARTMENTAL NURSERIES AS OF 31.3.90

	No. of Nurseries
Kisan Nurseries	961
School Nurseries	972
NGO Nurseries	88
TOTAL	2021

INDIA
NATIONAL SOCIAL FORESTRY PROJECT (CREDIT 1611-IN)
UTTAR PRADESH SUBPROJECT

KEY PHYSICAL INDICATORS
POSITIONING OF KEY PERSONNEL

Category	1985-86		1986-87		1987-88		1988-89		1989-90		SAR/
	SAR a/	Actual	SAR b/	Actual	SAR b/	Actual	SAR b/	Actual	SAR b/	Actual	Actual %
Addl. Chief Conservator of Forests	1	-	2	1	2	2	2	2	2	2	100
Conservator of Forests	5	-	9	4	9	6	9	6	9	6	67
Dty Conservator of Forests	11	9	15	9	19	14	24	14	28	19	68
Asst. Conservator of Forests	42	9	52	9	67	48	77	48	88	54	61
Range Forest Officer	176	-	378	16	482	400	712	400	712	444	62
Deputy Ranger/Forester	294	-	744	58	1008	542	1488	542	1672	646	39
Social Forestry Worker	177	35	380	120	611	305	1013	305	1013	540	53
Total	706	53	1580	217	2198	1317	3325	1317	3524	1711	49

a/ IDA Staff Appraisal Report/USAID Project Paper
b/ Cumulative

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INDIA
NATIONAL SOCIAL FORESTRY PROJECT (CREDIT 1611-IN)
UTTAR PRADESH SUBPROJECT

KEY PHYSICAL INDICATORS
CONSTRUCTION OF BUILDINGS

Category (No.)	SAR/ Target upto	Progress 1988-89	Added during 1989-90	Total	Partial Construction 1989-90	SAR/ Actual %
1. Residential	1000	640	92	732	53	73
2. Non-residential	984	725	20	745	2	76
Total	1984	1365	112	1477	55	74
PROCUREMENT OF VEHICLES						
Car	6	6	7	13		216
Jeep	51	55	30	85		166
Van	6	18	3	21		350
Motorcycle	260	-	-	-		0
Tractor	113	140	17	157		139
Total	436	219	57	276		63

INDIA

NATIONAL SOCIAL FORESTRY PROJECT (CREDIT 1611-IN USAID 386-0495)

UTTAR PRADESH SUBPROJECT

KEY PHYSICAL INDICATORS

TRAINING

Category	1985-86 SAR/PP a/	1985-86 Actual	1986-87 SAR/PP	1986-87 Actual	1987-88 SAR/PP	1987-88 Actual	1988-89 SAR/PP	1988-89 Actual	1989-90 SAR/PP	1989-90 Actual	Total SAR/PP	Total Actual	SAR/PP Actual %
1 Staff Domestic (No.)													
(a) Through Forestry Schools													
- Range Officers	65		100	-	100	-	100	19	100	88	465	107	23
- Foresters	200	91	200	85	200	73	200	73	200	81	1000	636	64
- Forest Guards	300	188	300	186	300	165	300	171	300	381	1500	1091	78
(b) Other Group Training b/													
- State/Inter-State tour/ training	330	-	270	-	270	-	270	-	1140	-	1410	-	0
2 International (No.) (Short/Long Term)	7.5	1	7.5	6	5	3	3	2	23	-	26	12	46
3 Farmers through camps/visits (No.)													
- Farmers' visit	400		400		400		400		400	7448	2000)	7448)	
- Farmers' 1-day training	10000	108696	10000	113854	10000	123676	10000	159284	10000	106073	) 50000)	) 611583)	1190
- Others	90	-	60	22016 c/	60	30465 c/	60	60112 c/	60	46734 c/	330	159327	4828

a/ IDA Staff Appraisal Report/USAID Project Paper

b/ 9 to 11 groups a year and each group is to consist of 30 trainees.

c/ School Students and teachers, and Block Development employees.

INDIA

NATIONAL SOCIAL FORESTRY PROJECT (CREDIT 1611-IN USAID 386-0455)

UTTAR PRADESH SUBPROJECT

KEY FINANCIAL INDICATORS

SAR/PP ESTIMATED EXPENDITURES AND ACTUALS

		1985-86 to SAR/PP	1987-88 Actual	1988-89 SAR/PP	1988-89 Actual b/	1989-90 SAR/PP	1989-90 Actual	Total SAR/PP	Total Actual	SAR/PP Actual %
I	ORGANISATION MANAGEMENT									
A	Civil Works	114.2	100.2	38.3	69.3	43.2	21.1	198.2	190.6	99
B	Vehicles	52.0	25.8	20.0	8.1	-	9.6	72.0	43.5	60
C	Equipment & Furniture	6.4	0.4	1.3	2.9	1.5	6.0	9.2	9.3	101
D	Building Rent & Mtce	35.7	6.7	17.7	2.1	22.1	5.1	75.5	13.9	18
E	Staff Salaries	107.6	160.0 c/	81.9	66.4 c/	106.6	118.4	96.1	344.8	116
F	Staff Travel	31.8	13.8 c/	21.9	6.7 c/	27.1	11.3 c/	55.8	31.8 c/	57
G	Vehicle Operation & Mtce	118.5	5.8	14.3	4.6	15.5	5.4	48.3	15.8	33
H	Office Operation	8.8	23.3	12.2	14.9	23.9	18.1	47.0	56.3	120
II	PHYSICAL ACTIVITIES									
A	Nursery & Plantation	438.6	300.2	172.5	166.6	142.6	236.9	753.7	703.7	93
III	EXTENSION, TRAINING & PLANNING	20.2	3.6	7.6	2.5	8.1	4.7	35.9	10.8	30
IV	MONITORING & EVALUATION	0.2	1.4	0.2		0.2	0.3	0.6	1.7	283
	TOTAL	834.9 a/	641.6 b/	388.2	344.0 c/	388.2	436.9 d/	1611.3	1422.6	88

a/ Includes Rs.57.8 M against 0 year

b/ Includes Rs.53.3 M against 0 year

c/ Provisional due to likely mix of ineligible non-incremental staff from Phase I

d/ Tentative

INDIA
NATIONAL SOCIAL FORESTRY PROJECT (CREDIT 1611-IN USAID 386-0495)
UTTAR PRADESH SUBPROJECT

KEY FINANCIAL INDICATORS
BUDGET SANCTIONS AND ACTUAL EXPENDITURES

1985-86			1986-87			1987-88			1988-89			1989-90			Total		
SAR/PP	Budget Sanction	Actual	SAR/PP	Budget Sanction	Actual	SAR/PP	Budget Sanction	Actual	SAR/PP	Budget Sanction	Actual	SAR/PP	Budget Sanction	Actual	SAR/PP	Budget Sanction	Actual d/	Budget Sanction %
22[illegible].9 a/	197.9	197.3 b/	271.8	192.3	190.9 c/	339.2	268.7	253.4 c/	388.2	371.3	344.4 c/	388.2	404.8	436.9 d/	1611.3	1435.0	1422.5	99

a/ Includes Rs. 57.8 M against 0 year
b/ Includes Rs. 53.3 M against 0 year
c/ Provisional due to likely mix of ineligible non-incremental staff from Phase I
d/ Tentative

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INDIA

NATIONAL SOCIAL FORESTRY PROJECT (CREDIT 1611-IN)

UTTAR PRADESH SUBPROJECT
FINANCIAL INDICATORS

SCHEDULE OF DISBURSEMENTS
(SDR Million Cumulative)

Month, Year	SAR Estimate	Actual	Estimated	SAR/Actual %
FY86				
Dec 1985	6.2	0		0
Jun 1986	22.7	10.7		47
FY87				
Dec 1986	35.7	16.3		47
Jun 1987	50.9	24.7		48
FY88				
Dec 1987	67.2	29.1		43
Jun 1988	84.7	43.1		50
FY89				
Dec 1988	103.4	43.0		41
Jun 1989	123.1	63.3		51
FY90				
Dec 1989	141.3	75.2		53
Jun 1990	153.1	79.8/_b		52
FY91				
Dec 1990	166.4 /b		103.0	61
Jun 1991	166.4		118.0	70
FY92				
Dec 1991	166.4		133.0	80
Jun 1992	166.4		155.0	93
FY93				
Dec 1992	166.4		166.4	100

Effectiveness Date : 02/14/1986
Closing Date : 12/31/1990
Likely Closing Date : 03/31/1993

a/ As of September 30, 1990 IDA disbursements were SDR 87.5 M. USAID disbursements on September 30, 1990 were US $ 47 M.
/b Total SAR estimated till December 1990 is US$ 165.0 M, of which Uttar Pradesh subproject is US$ 61 M.
(Approximate exchange rates 1 SDR = US$ 1.40
1 SDR = Rs. 25.0)

INDIA

NATIONAL SOCIAL FORESTRY PROJECT (CREDIT 1611-IN USAID 386 -495)
UTTAR PRADESH SUBPROJECT

STATUS OF REPORTS

CERTIFIED ANNUAL ACCOUNTS

Year	Due Date	Received/Overdue
1985-86	December 1986	Received
1986-87	December 1987	
1987-88	December 1988	Received December 1988
1988-89	December 1989	Received December 1989
1989-90	December 1990	Not yet due

CERTIFIED STATEMENT OF EXPENDITURE (SOE)

Year	Due Date	Received/Overdue
1985-86	December 1986	Received
1986-87	December 1987	
1987-88	December 1988	Received December 1988
1988-89	December 1989	Received December 1989
1989-90	December 1990	Not yet due

INDIA

NATIONAL SOCIAL FORESTRY PROJECT (CREDIT 1611-IN USAID 386-0495)

UTTAR PRADESH SUBPROJECT
STATUS OF REPORTS

SEMI-ANNUAL PROGRESS REPORTS

Period ending	Date due	Received/Overdue
09/85	12/85	]
		]
03/86	06/86	] Received
09/86	12/86	]
		]
03/87	06/87	]
09/87	12/87	]
03/88	06/88	Received 06/88
09/88	12/88	Received 01/89
03/89	06/89	Received 04/89
09/89	12/89	Received 01/90
03/90	06/90	Received
09/90	12/90	Not yet due

ANNUAL MONITORING AND EVALUATION REPORT

Period ending	Date due		Received/Overdue
03/86	06/86	]	One report containing field survey of block
03/87	06/87	]	and strip plantings upto 1986 has been
03/87	06/87	]	published in 03/90.For Farm and non-Farm
03/88	06/88	]	planting contractor report for the years
03/89	06/89	]	1983-87 published in 03/90
03/90	06/90		

Agro Forestry			
Raising of Seedlings (No. in millions)	8	7	-
Distribution of Seedlings (No. in million)	12.4	8	7
Tree Tenure Seedling Distribution (No. in million)	1.34	-	-
Private Wasteland Planting (50% subsidy)	3,954	546	500
Departmental Plantations			
Self help (ha)	303	100	97
Rain fed (ha)	8,347	8,500	13,000
Departmental plantation (ha)			
Rehabilitation of Degraded Forests	2,928	1,984	1,734
Silvo pastoral operation	1,643	2,000	2,000
Fuel Saving devices			
Chulas (No.)	1,777	2,000	2,200
Cookers (No.)	500	1,000	1,000
Crematoria Improvement	87	125	125
Financial requirements (Rs. in million)	200	250	300

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(INDIA)
NATIONAL SOCIAL FORESTRY 1
(CR.1611-IN)

Status of Covenants

Page No. 1
11/14/90

Section	Summary Description	Type	Original Compliance Date	Revised Compliance Date	Level of Compliance	Remarks
PF.10 MAR MIN	GOHP should make adequate provision for vehicles and travel allowances to allow field staff to effectively carry out their extension responsibilities.	ORG	/ /	/ /	2	No motorcycles have been purchased which is affecting implementation.
PF.10 MAR MIN	GOHP should raise its charge for seedlings to 15 paisa by 1987 and 20 paisa by 1989.	ORG	/ /	06/30/90	1	It has now been proposed by the Bank to increase it further and reduce the subsidy.
PF.3.01C.DCA	Borrower shall make available out of proceeds of Credit an amount equivalent to SDR 24,500,000 to HP.	ORG	/ /	/ /	1	
PF.3.04A.DCA	GOI shall furnish IDA proposed structure of Central Forestry Organization.	ORG	04/30/86	06/30/89	1	
PF.3.04B.DCA	GOI shall sanction by 4.30.86 and fill by 10.31.86 the position of Head of the Central Social Forestry Organization.	MAN	04/30/86	/ /	1	
PF.3.04C.DCA	GOI shall maintain thereafter position of Head of the Central Social Forestry Organization and those of Chief Project Economist and Deputy IGF/Monitoring.	MAN	10/31/86	/ /	1	
PF.4.01A2.DCA	GOHP shall cause its depts.& other agencies responsible for Part A of the project to furnish IDA not later than 9 months after each FY certified copies of their accounts & financial statements.	FIN	12/31/88	/ /	1	
PF.4.01B2.DCA	GOHP shall cause its depts.& other agencies to furnish IDA immediately upon finalization report on audited accounts & financial statements.	ADT	03/31/88	/ /	1	
PF.5C.2.01A.PA	GOHP shall furnish information on private wasteland planting schemes,tree tenure schemes, community managed woodlots & tree farmer plantations to cover procedures for selecting participants, participants' rights & responsibilities, etc.	ORG	12/31/85	/ /	1	

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Section	Summary Description	Type	Original Compliance Date	Revised Compliance Date	Level of Compliance	Remarks
HP.SH.2.02.FA	After third year of planting but not later than 3.31.88 GOHP undertakes to carry a joint review of its subproject with borrower and IDA.	ORG	03/31/88	/ /	1	
HP.SH.2.03.FA	Once a year HP will furnish IDA results of the M&E of its subproject.	ORG	/ /	/ /	2	Farm forestry upto 3/87 and other woodlots upto 3/88 have been evaluated and reported.
HP.SH.2.04.FA	At least every two years GOHP will revise/update its wood balance study.	STD	/ /	11/30/90	2	GOHP has approved the study. The first phase is expected to be completed by November 1990.
HP.SH.2.05.FA	By 12.31.85 GOHP shall make arrangements to ensure that their Dept.of Forests & Dept. of Agr.Ext.Services cooperate to provide ext.service to farmers.	ORG	12/31/85	/ /	2	Orders have been issued, however coordination is wanting.
HP.SH.2.06A.FA	GOHP shall ensure that a single line of administrative command for field staff is maintained from circle conservator down.	MWI	/ /	/ /	3	See HP.SH.2.10.FA.
HP.SH.2.06B.FA	GOHP shall ensure that Steering Committee head by the State Forest Secretary meets quarterly to discuss and assign work priorities for field staff.	ORG	/ /	/ /	1	
HP.SH.2.09.FA	GOHP shall maintain coordination committees for social forestry activities.	ORG	/ /	/ /	1	
HP.SH.2.10.FA	By 3.31.88. GOHP shall carry out a study of the organizational issues in staff forest departments.	STD	03/31/88	06/30/89	3	After a review, GOHP promise to put the project under an Addl. CCF and a unified command is yet to be implemented.
HP.SH.2.11.FA	GOHP shall carry out a cost recovery study regarding social forestry seedlings' distribution & implement its findings.	STD	03/31/88	08/31/90	2	GOHP has taken up the study internally.

Codes for Level of Compliance
1 - Fully complied
2 - Partially complied - not affecting implementation
3 - Non Compliance
4 - Not yet due
5 - Covenant no longer applicable - should be deleted/modified
6 - Compliance date requires revision
A1 - Audit 1 year over due
A2 - Audit 2 or more years over due

Codes for Type of Covenant
AUD - Audit
FIN - Financial
RPT - Reporting
TCH - Technical
STD - Studies
CRY - Cost Recovery
ORG - Organisational
MWI - Management & Staffing

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INDIA
NATIONAL SOCIAL FORESTRY PROJECT (CREDIT 1611-IN USAID 386-0195)

HIMACHAL PRADESH SUBPROJECT

STATUS RATING OF PROJECT EXECUTION

		Status Rating by Mission 1/	
		This Mission (10/90)	Last Mission (05/90)
I	FIELD ACTIVITIES		
A.	Agro-forestry (Private Lands)		
	Farm Forestry (Seedling Distribution)	2	3
	Private Wasteland Planting	3	3
B.	Community Wasteland Plantations (Community Lands)		
	Community Woodlots (Rainfed)	2	2
C.	Government Wasteland Plantations (Government Land, Government Managed)		
	Rehabilitation of Degraded Forests	2	3
	Strip Plantations	2	2
II	SUPPORT SERVICES		
	Incremental Staff	2	3
	Training	2	3
	Research and Studies	2	2
	Fellowship	3	3
	Monitoring and Evaluation	3	3
	Extension and Publicity	3	3
	Technical Assistance	3	3
	Studies	2	2
III	CIVIL WORKS, VEHICLES AND EQUIPMENT		
	Construction of Buildings	3	3
	Construction of Training Facilities	3	3
	Vehicles and Equipment Procurement	2	1
	Crematoria and Stoves	2	3
IV	BUDGET, FINANCE	3	3
V	MANAGEMENT	2	3
VI	DISBURSEMENTS	3	3

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		Status Rating by Mission 1/ This Mission (10/90)	Last Mission (05/90)
VII	PROCUREMENT DEVELOPMENT	3	3
VIII	COMPLIANCE WITH COVENANTS	2	3
IX	PROJECT MANAGEMENT	3	3
X	PROCUREMENT	2	2
XI	AUDIT AND ACCOUNTS	2	3
XII.	ENVIRONMENTAL ASPECTS	3	3
XIII	OVERALL STATUS	2	3

1/ Status ratings 0 = not started
1 = no significant problems
2 = moderate problems
3 = major problems, but being adequately addressed
4 = major problems, not being addressed, and which require further action by implementing agency
C = activity completed
nr= activity not rated

2/ This is the first rating for this subproject

INDIA
NATIONAL SOCIAL FORESTRY PROJECT (CREDIT 1611-IN USAID 386-0-95)
HIMACHAL PRADESH SUBPROJECT

KEY PHYSICAL INDICATORS
PROGRESS OF PLANTING

(Hectares)

Category	1985-86		1986-87		1987-88		1988-89		1989-90		1990-91	Total		Actual SAR/
	SAR/PP	Actual	SAR/PP	Actual	SAR/PP	Actual	MTR	Actual	MTR	Actual	a/	SAR/PP/ MTR	Actual	PP/MTR %
Farm Forestry	8000	4550	9300	6324	10400	8829	10656	8565	6631	8728	5333	37000	42299	114
Private Wastelands	2100	890	2350	1913	2600	3069	3537	2553	3592	2551	3954	13000	14929	115
Tree Tenure	60	39	1123	67	200	219	293	317	215	180	893 /b	833	1509	181
Community Lands	6850	6860	7400	7873	8200	9767	13031	8554	11469	10994	8650	49000	52698	107
Government Wasteland	750	1484	750	1123	1000	1735	2570	1281	2083	1326	2928	9000	9857	109
Silvipasture RDF	-	-	-	-	-	-	2000	-	2000	1124	1643	4000	2767	69
Total	17760	13823	19913	17305	22400	23618	32097	21270	25990	24903	24401	112833	124059	110

a/ Tentative figures
b/ Equivalent to distribution 1.34 million seedlings by assuming 1500 seedlings per ha

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INDIA

NATIONAL SOCIAL FORESTRY PROJECT (CREDIT 1611-IN USAID 386-0495)

HIMACHAL PRADESH SUBPROJECT

KEY PHYSICAL INDICATORS

POSITIONING OF KEY STAFF

Category	SAR/PP	Actual	Actual/SAR/PP/MTR %
Additional Chief Conservator of Forests	1	1	100
Conservator of Forests	2	1	50
Dty. Conservator of Forests	4	3	75
Asst. Conservator of Forests/Sr.PFS	41	41	100
Range Forest Officer	84	84	100
Deputy Ranger/Forester	39	89	100
Forest Guard/SocialWorker	388	388	100
Total	609	607	99

TRAINING

	1985-86		1986-87		1987-88		1988-89		1989-90		Total		Actual SAR/
	SAR/PP	Actual	SAR/PP	Actual	SAR/PP	Actual	MTR	Actual	MTR	Actual	Target	Actual	PP/MTR %
Staff Domestic (No.)	120	-	196	1959	208	767	198	205	191	-	913	2931	321
Staff (International) (No.)	1	-	4	1	4	3	4	3	17	-	17	7	41
Farmers (No.)	1050	-	2100	2292	2100	2040	2100	980	2100	3590	9540	9000	94
Total (No.)	1171	-	2300	4252	2312	2810	2302	1188	2295	3590	10380	11938	115

INDIA
NATIONAL SOCIAL FORESTRY PROJECT (CREDIT 1611-IN USAID 386-0495)
HIMACHAL PRADESH SUBPROJECT

KEY PHYSICAL INDICATORS

CONSTRUCTION OF BUILDINGS

	1985-86		1986-87		1987-88		1988-89		1989-90		Total		SAR/PP
	SAR/PP	Actual	SAR/PP	Actual	SAR/PP	Actual	MTR	Actual	MTR	Actual	Target	Actual	Actual %
Non-residential (No.) (including Institute, Hostel, etc.)	14	-	-	14	-	-	-	-	-	-	14	-	0
Residential (No.)	51	-	79	66	65	65	60	115	60	95	315	341	108
Total (No.)	65	-	79	82	65	65	60	115	60	95	329	341	108

INDIA

NATIONAL SOCIAL FORESTRY PROJECT (CREDIT 1611-IN USAID 386-0495)

HIMACHAL PRADESH SUBPROJECT

KEY PHYSICAL INDICATORS

VEHICLES & EQUIPMENT

Category	1985-86		1986-87		1987-88		1988-89		1989-90		Total		
	SAR/PP	Actual	SAR/PP	Actual	SAR/PP	Actual	SAR/PP	Actual	SAR/PP	Actual	Target	Actual	SAR/PP/ Actual %
Car	2	-	-	2	-	3	-	-	-	-	2	5	250
Jeep	4	-	4	7	-	6	-	1	-	-	8	14	175
Van	-	-	4	4	-	-	8	7	-	-	12	11	91
Motorcycle	75	-	25	-	3[illegible]	-	25	-	32	-	191	-	0
Truck	5	-	3	4	-	-	-	3	-	-	8	8	100
Total	93	-	42	17	34	9	33	11	32	-	221	38	17

FUEL SAVING DEVICES

Distribution (No.)of													
(a) Chauladhar Chulahs	1000	-	1000	-	1000	1000	1000	1000	1000	-	5000	2000	40
(b) Pressure Cookers	300	-	400	-	400	3000	400	800	400	-	1900	4200	221
(c) Establishment of Improved Crematoria	5	-	5	-	5	5	5	5	5	-	25	10	20
Total	1305	-	1405	-	1405	4005	1405	1805	1405	-	6925	5910	85

Annex [illegible]
Table 3
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INDIA

NATIONAL SOCIAL FORESTRY PROJECT (CREDIT 1611-IN USAID 386-0495)

, HIMACHAL PRADESH SUBPROJECT

KEY FINANCIAL INDICATORS

(a) SAR/PP ESTIMATED EXPENDITURES AND ACTUALS b

	1985-86		1986-87		1987-88		1988-89		1989-90		Total		
	SAR/PP	Actual	SAR/PP	Actual	SAR/PP	Actual	SAR/PP	Actual	SAR/PP	Actual	SAR/PP	Actual	SAR/PP/ Actual %
1 Civil Works	6.5	0.0	7.4	4.9	8.2	10.5	8.9	9.9	5.6	2.6	36.6	27.9	76
2 Staff													
(a) Salaries	15.6	5.7	15.0	16.5	19.3	17.7	21.1	24.9	15.9	18.4	86.9	83.2	95
(b) Travel	1.5	0.7	1.6	1.4	1.9	1.6	2.2	2.5	1.6	1.4	8.8	7.6	86
3 Vehicles, Furniture and Equipment	5.6	0.1	5.0	2.4	3.5	2.2	3.7	2.1	3.0	0.2	17.1	7.0	41
4 Vehicle Operation	0.6	0.3	1.0	0.8	1.6	0.7	2.1	2.5	1.7	0.7	7.0	5.0	71
5 Plantations	61.0	44.0	65.3	74.3	70.5	91.7	77.7	97.0	54.9	48.2	329.4	355.2	108
6 Other expenses	10.7	4.7	4.8	0.8	10.7	0.5	26.0	5.0	32.8	2.8	85.0	13.8	16
Total	101.7 a/	55.7	101.1	101.1	116.8	125.0	137.7	144.3	115.0	74.3	572.9	500.4	87

a/ Includes retroactive funding 1984-85

b/ Figures as reported in 5/90 supervision; actual figures from March 1990 not yet available

INDIA

NATIONAL SOCIAL FORESTRY PROJECT (CREDIT 1611-IN USAID 385-0495)

UTTAR PRADESH SUBPROJECT

KEY FINANCIAL INDICATORS

(b) BUDGET SANCTIONS AND ACTUAL EXPENDITURES

SAR/PP	1985-86 Budget Sanction	Actual	SAR/PP	1986-87 Budget Sanction	Actual	SAR/PP	1987-88 Budget Sanction	Actual	SAR/PP	1988-89 Budget Sanction	Actual	SAR/PP	1989-90 Budget Sanction	Actual	SAR/PP	Total Budget Sanction	Total Actual (upto 12/89)	SAR/PP Budget Sanction %
101.7 a/	42.5	55.7	101.1	101.1	101.1	116.3	125.0	125.0	137.7	149.2	144.3	115.0	137.0	74.3	572.9	554.8	500.4	90

a/ Includes retroactive funding 1984-85

INDIA
NATIONAL SOCIAL FORESTRY PROJECT (CREDIT 1611-IN)
HIMACHAL PRADESH SUBPROJECT

FINANCIAL INDICATORS
SCHEDULE OF DISBURSEMENTS
(SDR Million Cumulative)

Month, Year	SAR Estimate	Actual	Estimated Aug-89	SAR/Actual %
FY 86				
Dec 1985	6.0	0.0		0
Jun 1986	22.7	10.7		47
FY 87				
Dec 1986	35.7	16.3		47
Jun 1987	50.9	24.7		48
FY 88				
Dec 1987	67.2	29.1		43
Jun 1988	84.7	43.1		50
FY 89				
Dec 1988	103.4	43.0		41
Jun 1989	123.1	63.3		51
FY 90				
Dec 1989	141.3	75.2		57
Jun 1990	153.1	79.8		52
FY 91				
Dec 1990	166.4 /a		103.0	61
Jun 1991	164.4		118.0	70
FY 92				
Dec 1991	166.4		133.0	80
Jun 1992	166.4		155.0	93
FY 93				
Dec 1992	166.4		166.4	100

Effectiveness Date : 02/14/86
Closing Date : 12/31/90
Likely Closing Date : 03/31/93

a/ Total SAR estimated disbursement till December 31, 1990 is US $ 165.0 M, of which Himachal Pradesh subproject is US $ 24M. Actual disbursement upto September 30, 1990 is SDR 87.5 M.
Actual AID disbursement upto September 30, 1990 is US $ 47 M.

(Approximate exchange rates 1 SDR = US $ 1.40
1 SDR = Rs.25.00)

Table 5

INDIA
NATIONAL SOCIAL FORESTRY PROJECT (CREDIT 1611-IN / USAID 386-0495)

HIMACHAL PRADESH SUBPROJECT
STATUS OF REPORTS

SEMI-ANNUAL PROGRESS REPORT

Period ending	Date due	Received/Overdue
09/85	12/85	]
03/86	06/85	] Received
09/86	12/86	]
03/87	06/87	06/87
09/87	12/87	12/87
03/88	06/88	06/88
09/88	12/88	04/89
03/89	06/89	06/89
09/89	12/89	04/90
03/90	06/90	06/90

ANNUAL MONITORING AND EVALUATION REPORT

06/86		]
03/87	06/87	]
03/88	06/88	] Overdue
03/89	06/89	]
03/90	06/90	]

CERTIFIED ANNUAL ACCOUNTS

Year	Due Date	Received/Overdue
1985-86	December 1986	]
1986-87	December 1987	] Received
1987-88	December 1988	]
1988-89	December 1989	Received July 1990
1989-90	December 1990	Not yet due

CERTIFIED STATEMENT OF EXPENDITURE (SOE)

1985-86	December 1986	]
1986-87	December 1987	] Received
1987-88	December 1988	]
1988-89	December 1989	Received July 1990
1989-90	December 1990	Not yet due

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