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Report No. 9520

PROJECT COMPLETION REPORT

NEPAL

COMMUNITY FORESTRY DEVELOPMENT AND TRAINING PROJECT
(CREDIT 1008-NEP)

APRIL 30, 1991

Agriculture Operations Division
Country Department I
Asia Region

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CURRENCY EQUIVALENTS

US\$1.00 (at Appraisal) = Nepalese Rupee (NR)12.00
US\$1.00 (at Completion) = Nepalese Rupee (NR)28.85

FISCAL YEAR

July 16 - July 15

PRINCIPAL ABBREVIATIONS

ADB	Asian Development Bank
CFAD	Community Forestry and Afforestation Division
CFDD	Community Forestry Development Division
FAO	Food and Agriculture Organization of the United Nations
FINNIDA	Finnish International Agency for Development Assistance
HMG	His Majesty's Government of Nepal
MOF	Ministry of Forest
PF	Panchayat Forest (Plantations)
PPF	Panchayat Protected Forest (Plantations)
SIU	Stove Improvement Unit
TA	Technical Assistance
UNDP	United Nations Development Programme
USAID	U.S. Agency for International Development
WB	World Bank

Office of Director-General
Operations Evaluation

April 30, 1991

MEMORANDUM TO THE EXECUTIVE DIRECTORS AND THE PRESIDENT

**SUBJECT: Project Completion Report on NEPAL
Community Forestry Development and Training Project
(Credit 1008-NEP)**

Attached, for information, is a copy of a report entitled "Project Completion Report on NEPAL - Community Forestry Development and Training Project (Credit 1008-NEP)" prepared by the Asia Regional Office. No audit of this project has been made by the Operations Evaluation Department at this time.

Attachment



PROJECT COMPLETION REPORT

NEPAL

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(Credit 1008-NEP)TABLE OF CONTENTS

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PROJECT COMPLETION REPORT

NEPAL

**COMMUNITY FORESTRY DEVELOPMENT AND TRAINING PROJECT
(Credit 1008-NEP)**

PREFACE

This is the Project Completion Report (PCR) for the Community Forestry Development and Training Project in Nepal, for which Credit 1008-NEP in the amount of US\$17.0 million was approved on April 22, 1980. The project was also funded through USAID and UNDP grants of US\$6.1 million and US\$1.7 million Government contribution. The credit was closed on June 30, 1989, three years behind schedule. It was fully disbursed and the last disbursement was on January 6, 1989.

The PCR was prepared with the assistance of an FAO/World Bank Cooperative Programme mission which visited Nepal in April 1990.^{1/} The Borrower had been requested by the FAO/CP mission to prepare Part II, but this has not been received.

The PCR is based on the review of the relevant documents, including the preparation and appraisal documents, credit agreement, supervision and mid-term review mission reports, technical reports prepared by the FAO/UNDP Technical Assistance Project, correspondence between the Bank and the Borrower, discussions held with key Government staff and World Bank personnel familiar with the project, data collected during the mission's field visits, and internal Bank memoranda.

^{1/} FAO/CP's report was reviewed by ASIAG and, apart from some minor corrections, remains as submitted.

PROJECT COMPLETION REPORT

NEPAL

COMMUNITY FORESTRY DEVELOPMENT AND TRAINING PROJECT
(Cr. 1008-NEP)

EVALUATION SUMMARY

Objectives

3. The project was designed as the first phase of a national afforestation programme in Nepal. It aimed at: (a) developing community forestry, with the involvement of the local panchayats in the Hill districts; and (b) establishing training facilities to meet the national needs for qualified forestry staff, and provide in-service training for community forestry operations. Generally, these objectives were achieved.

4. The total estimated cost of this five-year project was US\$24 million, funded through an IDA Credit of US\$17 million, USAID and UNDP grants of US\$6.1 million and a US\$1.7 million contribution by the Government. The project activities started in 1980 and continued into 1989 - four years beyond the original date of its completion. There was no cost over-run in dollar terms, although in local currency costs exceeded appraisal estimates.

Implementation Experience

5. Although the project succeeded in exceeding appraisal targets, implementation was beset with several shortcomings (paras 5.3 to 5.8). Plantations suffered from low survival rates. Delays in the release of budgeted funds adversely affected plantation operations and field staff morale. Although a rich variety of species suitable for community forestry plantations and well tested technology for their multiplication were available within the country, they were not effectively used. Less emphasis than intended was placed on regeneration and improved management in the project-covered forest plantations. The project focused on panchayats as targets without effectively involving the intended beneficiaries. Many of the communities were not sure of their rights to and benefits from the trees planted and the process of transferring management responsibilities to the panchayats was very slow. Implementation of civil works did not progress satisfactorily and involved higher costs, due to construction design deficiencies, and inadequate attention to detail at preparation and appraisal stages. Although TA inputs played an essential part in evolving technical standards for critical project operations and helping field implementation, research support did not progress as expected, for want of Government coordination.

Results

6. In addition to initiating a large-scale community forestry programme in 29 Hill districts, the project contributed to increasing training capacity and skilled manpower for forestry development. Results of economic re-evaluation at project completion show an estimated ERR of 14% which is 2% lower than the appraisal estimate.

7. The training facilities created through the project helped to reduce manpower shortages in the forestry sector and upgrade community forestry skills. The project's intervention helped to strengthen institutional arrangements enabling the Government to undertake a larger community forestry programme throughout the country. The project also carried out valuable groundwork for the smooth phasing-in of the WB-supported follow-up project, viz. Forestry III, and served as a vehicle to bring about policy changes and introduce legislative measures towards improving community forestry operations in the country.

Sustainability

8. Experience so far gained indicates that community participation not only in establishing plantations but in their management and protection is critical to sustain production. Progress made so far under this project has been unsatisfactory, but these lessons served to formulate a better preparation of the follow-up project consisting in changes in the law, procedures, policy and design. These improvements were introduced under the Hill Community Forestry Project (Cr. 2028-NEP), which became effective May 14, 1990.

Findings and Lessons Learned

9. But for the Bank's decision to extend the disbursement period and approve the follow-up project without much delay, the prospects for sustaining the momentum generated by the project would have remained uncertain. Although implementation suffered due to Government's procedural rigidities and operational inefficiencies, an encouraging feature is that the Government has been responding to emerging problems, initiating measures to address them.

10. Some of the shortcomings encountered in the implementation could have been mitigated through careful scrutiny of: (a) construction designs and costs at appraisal stage; and (b) qualitative aspects of plantation development and beneficiary issues during the supervisory phase. The main lessons of this project experience are:

- Preparation and appraisal missions should have a clear focus on local funding needs, budgetary procedures and flow of fund arrangements.
- Equally important is the need, both at preparation and appraisal stages, to ascertain the availability of land, physical plans and designs for civil works and pay attention to details of construction costs, including physical contingencies.

- Where appropriate, consideration should be given to training a core group of project administrative personnel in project accounting procedures and procurement to meet Bank requirements.
- Attention should be paid not only to the formal compliance of project covenants but to the 'substantive' aspects of their implementation.
- Sustained management of community-planted forests is only likely if the communities themselves have a large measure of responsibility for site selection and plantings and if their harvest rights are known from the outset.
- Conceptually innovative projects, requiring a large degree of beneficiary involvement for their success, are likely to be slow in starting, and this should be allowed for at preparation.

PROJECT COMPLETION REPORT

NEPAL

COMMUNITY FORESTRY DEVELOPMENT AND TRAINING PROJECT (Cr. 1008-NEP)

PART I - PROJECT REVIEW FROM BANK'S PERSPECTIVE

A. Project Identity

Project Name : Community Forestry Development and Training Project
Credit No. : 1008-NEP
RVP Unit : Asia Region
Country : Nepal
Sector : Agriculture
Sub-sector : Forestry

B. Background

11. Forestry plays a key role in the economy and ecology of Nepal. In the Hill districts - which contain over 45% of the country's 18 million population, 68% of the total land and 63% of the forest area, and where agricultural resource endowments are meager - forests form an integral part of the subsistence farming system and serve as sources of fodder, compost, fuelwood and construction timber. Over the years, due to population and grazing pressures resulting in increased demand for fuelwood and fodder, the forestry resources in these districts have been depleted at an alarming rate without concomitant reforestation or improved management.

12. Recognizing the environmental implications of this degradation and the necessity to cater to the basic needs of the increasing rural population for fuelwood and fodder, His Majesty's Government of Nepal (HMG) introduced some radical changes in its forestry policy and sectoral objectives. These changes, as reflected in the (1976) National Forestry Plan and (1978) amended Forestry Rules, sought to address the problems of environmental degradation and 'rural energy crisis' through stepping up afforestation with community participation.

13. Consistent with this, the project was conceived as the first phase of a national afforestation programme aimed at: (a) developing community forestry in the Hills; and (b) establishing training facilities to satisfy internal needs for qualified forestry and soil and water conservation personnel and to provide in-service training.

C. Project Objectives and Description

14. The principal objective of the community forestry aspect of the project was to increase supplies of fuelwood in Hill areas through establishment of new plantations and rehabilitation of areas of degraded forest. Secondary objectives were to provide fodder, grass and wood for agricultural implements and house construction and introduce and popularize improved cooking stoves as a fuelwood conservation measure.

15. The objective of the training support was to enable Nepal to meet future trained manpower needs of the forestry sector and re-train the existing staff presently concerned with commercial timber extraction and forest law enforcement, in the skills of community forestry.

16. Components of the project were:

(a) Community Forestry Development

(i) To provide funds for staff, equipment, horses and vehicles, operating expenses and nurseries at the Forest Division and village panchayat levels to:

- establish 11,750 ha of Panchayat Forests (PF);
- rehabilitate 39,100 ha of Panchayat Protected Forests (PPF); and
- establish about 0.9 million trees on private land.

(ii) Support Forest Department operations by provision of additional staff, buildings, seed stores, equipment, vehicles and operating expenses to:

- establish a Community Forestry and Afforestation Division (CFAD) in the Forestry Department;
- strengthen Ministry of Forest (MOF) forestry research activities; and
- introduce fuel conservation measures through the establishment of Stove Improvement Unit (SIU) in CFAD and construction of 15,000 improved stoves.

(b) Forestry Training

(i) Expand staff training facilities by providing staff, operating costs, civil works, equipment and vehicles to:

- establish a new university campus; and a programme for training Officers, Foresters. 1 Soil and Water Conservation Technicians;
- upgrade the existing Forestry Institute; and
- establish an In-service Training Wing within the Ministry of Forestry.

(c) Mid-term Review and Feasibility Studies**(i) Provide funds for:**

- mid-term review on project progress;
- a feasibility study on timber extraction from high altitude forests; and
- a feasibility study on the provision of fuelwood for urban areas.

(d) Technical Assistance**(i) To provide about 115 man-years of technical assistance to assist:**

- the field planting programme;
- CFAD organization and administration;
- forestry research; and
- training course design and the lecturing programme.

17. The project area included 28 administrative districts covering one-third of the country and containing five million people. The total estimated cost of this five-year project was US\$24.8 million. This was to be funded through an IDA credit of US\$17.0 million, USAID and UNDP grants of US\$3.24 and US\$2.84 million respectively, and a US\$1.7 million contribution by the Government of Nepal. The Ministry of Forests and Soil Conservation was responsible for project implementation of the community forestry and in-service training components, and the Tribhuvan University under the Ministry of Education for diploma and certificate training.

D. Project Design and Organization

18. **Design.** The conceptual basis for the project was provided by the Government's Forestry Rules introduced in 1978 which were aimed at involving communities and private concerns in forestry development and management. This legislation, among other things, also aimed at the handing over of state forest lands to the local communities through the Panchayat system, either as Panchayat Forest (PF) for re-establishing forest cover, or as Panchayat Protected Forest (PPF) for protection and management.

19. The project was identified and prepared with the assistance of FAO/CP in 1978-79 and appraised by WB in 1980. Main adjustments during appraisal were: addition of sub-components for forestry research, improved stove technology, mid-term project review, feasibility studies on extraction of timber from high altitude forests and development of fuelwood supplies for urban areas, extra training facilities at Pokhara and Chautara, a new office building for the

Forestry Department Training Wing and the extension of the project period from four to five years.

20. The project was designed to focus on afforestation in unforested or denuded areas with community participation through the Panchayat system. Although the need to establish forests on substantially greater areas than proposed under the project was recognized, due to constraints of trained manpower shortages and lack of skills in community forestry, low afforestation targets were fixed. To relieve the manpower shortages and provide an institutional framework suitable for implementing the community forestry programme, the project scope included provision for: (a) improving training facilities; (b) remedial training for the forestry staff - oriented in forest law enforcement, licensing and commercial timber extraction - in skills of promoting community forestry; and (c) establishing a separate Community and Afforestation Division within the Forestry Ministry. In these respects, the project design was sound. The timing of the project was also appropriate as it became operational in the wake of the Government's decision to devolve responsibility and control over management of forests from the Forest Department to the level of Panchayats. However, considering the nature of forestry development activities involving diverse rural communities located in relatively inaccessible mountainous areas, the project ought to have been designed allowing for a longer implementation period.

21. Organization. A special division, viz. CFAD, was established within the Forestry Ministry through amalgamating the then existing Afforestation Unit with new units for Community Forestry (CFU), Motivation and Publicity (MPU), Monitoring and Evaluation (MEU), Stove Improvement (SIU) and Administration to organize community forestry activities. Tribhuvan University under the Ministry of Education and the Training Wing of the Forestry Department were responsible for implementing the training component. To ensure coordination, three coordination committees were constituted: (a) the Project Coordinating Committee to determine overall policy and coordinate with other departments; (b) the Community Forestry Coordinating Committee to ensure coordination at the working level; and (c) the Community Forestry Technical Committee for analyzing technical aspects of project progress.

22. CFAD field staff were entrusted with the responsibilities to motivate the panchayats to participate in the programme, to assist in identifying the PF lands to be planted with trees or sites to be protected (PPF), and to prepare management plans for the plantations including details of arrangements for distribution of future production. Provision was also made to engage Panchayat Forest Foremen to supervise nurseries and planting operations and provide community forestry extension, and Forest Watchers for protection of PFs and PPFs to be eventually paid by the participating communities. While unskilled labor in the villages was to be employed for nursery work, pitting and planting operations, voluntary labor was to be organized by participating panchayats for tending and harvesting operations.

E. Project Implementation

23. The project started in 1980 and continued into 1989 - about four years beyond the originally scheduled date for its completion. During the initial four years, disbursement was very low (Part III, C) due to starting difficulties, delays in the submission and reimbursement of claims, and problems associated with the preparation and approval of construction designs and contracts. Low disbursement and the increase in project funds in local currency (due to the depreciation of the local currency) during the project period, resulted in the extension of the project thrice. By January 1989, the Credit was fully disbursed. Total project cost in Nepalese rupees exceeded appraisal estimate although there was no cost over-run in dollar terms. Grant funds provided by UNDP were used for technical assistance through FAO-executed NEP/80/030 project until the end of 1987, and USAID assistance was extended beyond 1989 to provide continuing support for training facilities. The project was implemented in 29 (instead of 28) districts without any change in its objectives or components.

24. Community Forestry. The physical achievements of the community forestry component, as shown below, surpassed appraisal targets:

Indicators	Appraisal Targets (1980-85)	Achievement (1980-88)
Participating Panchayats (no.)	340	752
Nurseries (no.)	391	788
Plantations (PF+PPF) - ha	15,560	31,228
Private planting (no. of seedlings distributed)	900,000	6,726,020
Stove distribution (no.)	15,000	28,567

These figures, however, do not reflect the difficulties encountered in implementation and the shortcomings of some of the physical achievements.

25. Project PF plantations suffered from low survival rates due to poor quality seedlings, damage caused by grazing animals and use of saplings of species unsuitable to the local environment. Delays in the release of budgeted funds for seed collection, nursery preparation and plantation operations hampered plantings in appropriate seasons, adversely affecting their growth performance and the morale of field staff. Although the country is endowed with a rich variety of species appropriate for community forestry operations and has well tested techniques for reforestation, including for broad leaf species, the emphasis in most project plantations was on pines. This was mainly because pine seedlings could easily be multiplied and were considered more suitable for the sites made available for community plantations. Private planting, which made remarkable responses by exceeding the project target by over 600%, also encountered the problem of non-availability of desired species (fodder, fruit and other broad-leaf) in the project nurseries. Implementation placed less emphasis on regeneration and improved management in PPFs - for which provision was made under the project - which have great potential for high returns at minimal investment. The process of handing over the PPFs to panchayats and devolution of responsibilities to the local communities for managing the

established plantations was very slow. For want of adequate instructions, the implementing field officers could not detail the modes for the distribution of interim plantation benefits (e.g. fodder, loppings, fuelwood, etc.) and many of the communities were not sure of their rights to and benefits from the trees planted. The project focused on panchayats as the targets without effectively involving intended beneficiaries. In most cases, the role of panchayats was limited to organizing plantations. Many of them did not satisfactorily assume long-term responsibilities - both administrative and financial, for post plantation activities, including paying the watchers. The experience revealed that the panchayat was not the appropriate body for managing village community forestry, and field-level staff required additional skills and orientation to work with local communities.

26. The stove sub-component was intended to promote fuel conservation measures in the countryside. Despite the large number of its distribution under the project and apparent advantages, it has not been widely accepted by local communities. Independent studies on the performance of stove programmes in the country indicate that as much as 40% of the stoves distributed under various projects were abandoned during the first year of their distribution; most of those in use were located in urban or semi-urban centers, and few stoves survived beyond four years. The main problems of the stoves distributed under the project were their high breakage rate and unsuitability for local cooking requirements.

27. Training support provided through the Credit was used for the: (a) construction of a new campus of Tribhuvan University at Pokhara; (b) provision of improved facilities in the Institute of Forestry at Hetuada; (c) establishment of a new Training Wing for the Forestry Ministry; and (d) field-level training. Implementation of civil works for (a), (b) and (c) progressed slowly and involved higher costs than originally estimated. This was mainly because: (a) the designs and estimates made during preparation and at appraisal (particularly for the university campus) were inadequate and did not reflect actual requirements; (b) availability of land for construction activities was not ascertained in advance; and (c) there were considerable delays in obtaining the formal approval of the WB for the new designs and drawings submitted. In respect of the Training Wing, establishment of physical facilities outpaced technical staff availability for training and the Training Wing had to rely heavily on ad hoc arrangements to engage part-time lecturers from other agencies.

28. A Mid-term review on project progress was done in 1983, jointly by the Government, WB, UNDP and FAO. This review concluded that the approach developed through the project was appropriate to the conditions in hill districts and the communities were responding to it, and in future, attention should be paid to: (a) improving qualitative aspects of plantation operations; (b) strengthening community participation in management, including the benefits of the plantations; and (c) providing flexibility in project operations to meet local needs. These recommendations, however, did not significantly affect the project actions or its implementation style during the post mid-term review period. The feasibility study on extraction of timber from high altitude forests was not considered relevant during implementation and hence not undertaken. The study on fuelwood for urban areas (para 16) was carried out but the results of this study have not been used to formulate any new action programme.

29. Technical Assistance was provided through: (a) UNDP-funded FAO project NEP/80/030 in support of community forestry development component activities; and (b) USAID, as part of their Resource Conservation and Utilization Project (RCUP), primarily for strengthening training activities in the campus constructed under the project. Services of over 30 volunteers secured through separate agreements between the Government and voluntary organizations of UK, USA and Japan were also used for field activities in conjunction with the assistance provided through the FAO project. Findings of the mid-term review, as well as the terminal report of the above-mentioned FAO project, indicate that the TA inputs have in general been of good quality and played an essential part in evolving technical standards for nurseries and plantations, developing extension methods and materials, introducing and implementing monitoring systems, and supporting in-service training activities. A large proportion of the man-months provided under the TA component was accounted for by the services rendered by volunteers in support of implementation of field activities. Although the TA project was extended twice, it could not be extended until the closure date of the Credit.

30. Research support for community forestry did not progress as expected at appraisal. In contrast to the original proposal for strengthening research services within CFAD, by establishing a nationwide provenance trials, it was decided by the Government during implementation that research for community forestry would be conducted as a part of the general research programme of the Ministry. In practice, however, this did not happen. For want of coordination, silvicultural and other forestry research trials were all undertaken in locations outside the project area. Although, as required under the project, a draft national forestry research plan was prepared to ensure coordination and liaison between research scientists, it was not firmed up. The Forestry Technical Committee, established in accordance with the project covenants, did not function efficiently either to bring about this coordination.

F. Project Results

31. Overall, the project achieved its main objectives. In addition to initiating a large-scale community forestry programme in 29 hill districts, the project also contributed to increasing training capacity and skilled manpower for forestry development. At full development, the main outputs of the project plantations, as estimated at completion, would include 350,000 m³/year of fuelwood and 24,500 tonnes (in dry weight) of fodder/year. At appraisal, these were estimated to be 190,000 m³/year fuelwood and 330,000 tonnes (in green weight equivalent to 82,500 tonnes dry weight) of fodder/year. The projected output increase is due to the reported increase in the area under plantations rather than yields which, for some of the reasons mentioned in para 25, are estimated to be relatively lower (6 tonnes/ha) than the appraisal figures (16 m³/ha equivalent to 8.5 tonnes/ha). The lower fodder output, in comparison to the appraisal estimate, resulted because most project plantations contain pine trees which produce little or no fodder.

32. Results of economic re-evaluation at project completion show an estimated Economic Rate of Return (ERR) of 14%, which is 2% lower than the appraisal estimate. This low rate is mainly due to increased costs and lower yield projections. The ERR would improve to 17% if costs of training and technical assistance (included in the appraisal estimate) are excluded from the analysis.

33. The training facilities created through the project (in Pokhara and Hetuada) helped to reduce manpower shortages in the forestry sector through facilitating a Bachelor's Programme in Forestry for forty students per year and two-year certificate courses for about 110 forestry technicians per year. Similarly, the establishment of the Training Wing within the Department of Forestry enabled the Government to provide in-service and remedial training to the existing forestry staff and orientation/basic training to newly recruited community forestry personnel. Although in the initial stages the intake was very low, now the Training Wing provides in-service training for about 200 persons/year. The problem of non-availability of trained trainers continues to exist.

34. The project's intervention also brought about certain organizational improvements within the Forestry Department. CFAD (now called CFDD, i.e. Community Forestry Development Division) formed through project assistance, not only helped to organize and implement the project's community forestry component but with project's experience it has now emerged as a central institution and Division within the Forestry Department with wider responsibilities to provide guidance and supervisory support for a large-scale community forestry programme throughout the country.

35. Project Impact. In gauging the project success and its impact, it is essential to keep in view the following: (a) the project was the first large-scale effort to involve local communities addressing the problems of degradation of forestry resources and declining supplies of fuelwood and fodder; (b) it was implemented in the most difficult terrains, where communications are very poor, poverty is widespread and forestry surpluses have low financial value; (c) the development approach itself called for fundamental changes in the attitudes and behavior of participants requiring long periods to produce significant results; and (d) procedures adopted were too new and most of the field level personnel initially involved in implementation were lacking in community forestry extension experience. Viewed from these perspectives, the project, despite some of its shortcomings, carried out valuable groundwork, evoking interest of local village communities in forestry development activities. This is reflected in the development of village nurseries, increase in the availability of seedlings, enhanced private interest in farm forestry, training and placing field staff, development of extension materials and facilitating a nationwide community forestry programme. The project contributed to a smooth phasing-in of the follow-up WB-assisted project, Cr. 2028-NEP. The project was also a building block and catalyst in promoting and spreading the community forestry concept in other locations outside the area of its coverage. Almost all the twelve on-going externally assisted forestry projects have now included community forestry as an important component in their programmes. Further, the organizational, administrative, technical and social experiences gained through its implementation have considerably benefited the WB-assisted Second Forestry

Project (Cr.1400-NEP) being implemented in 14 districts in the Terai region of the country.

36. Besides, the project has served as a vehicle to bring about policy changes and introduce legislative measures towards improving the institutional framework for larger community forestry operations throughout the country. In the light of project implementation experience, the Government effected some changes in its 1978 Forestry Rules to enhance local people's participation and commitment through introducing the concept of 'user groups'. The Forestry Master Plan, completed in 1988 with the assistance of ADB and FINNIDA, envisages that over 46% of the investment programme (US\$811 million) for Nepal's forestry development during 1990-2010 should be devoted to community forestry. The Government's 1989 Forestry Sector Policy also underscores that community forestry "will have priority among other forest management strategies in the country" and the main objectives of this strategy would be to increase the supplies of fuelwood, fodder and timber for meeting the basic needs of the rural population.

37. The project activities, among other benefits, did provide employment opportunities (14,000 man-years) to the generally impoverished population in the hill districts. There is evidence that the investments made through the project would help to improve the fodder and fuelwood situation in these areas. The environmental impact of the project is positive. PF plantations established on denuded and over-grazed areas and, in some cases, areas subject to severe erosion and degradation, have helped to conserve soil and water in many of the project localities, as well as take pressure off the natural forest resource.

G. Project Sustainability

38. Since most project plantations are less than seven years old and the project itself is the first phase of a long community forestry development programme in the hills, experience is too short for its sustained performance to be evaluated. Forestry experience in the country through its various forms of development - State, private, nationalized and panchayat forestry - as well as some of the successful village forestry programmes, show that people's participation not only in establishing plantations but in management and protection are critical to sustain production. As indicated earlier, the process of transferring the management rights for the project plantations to the communities has been very slow and the communities themselves are not clear about their rights to the trees planted and the arrangements to share the benefits. When the panchayats - the focal point institution for project plantation and benefit sharing arrangements - were abolished, satisfactory institutional arrangements to sustain the project benefits were lost. To resolve these problems, the Government took adequate measures under the follow-up Hill Community Forestry Project (Cr. 2028-NEP), to not lose the potential for generating the expected long-term returns. Furthermore, the incremental staff and institutional facilities brought in by the project require continued budgetary support. Although the follow-up forestry projects might ensure continuity of funding for staff and facilities, arrangements are required in the long run to ensure recovery of most costs from the beneficiaries.

H. Bank Performance

39. Bank's support to the project, from identification through its completion, was generally satisfactory. The decision to extend the disbursement period until the beginning of 1989 and approve the follow-up project without much delay, considerably benefited the project. But for this, the prospects for continuing with the development works initiated and sustaining the momentum (in community forestry activities) gained through the project would have remained uncertain. Bank supervision missions monitored the project implementation fairly closely.

40. Some of the shortcomings encountered in the implementation could have been mitigated through more careful scrutiny of: (a) construction designs and costs at preparation and appraisal stage; and (b) qualitative aspects of plantation development and beneficiary issues during the supervisory phase. The main lessons of this project experience are:

- (a) preparation and appraisal missions should have a clear focus on local funding needs, budgetary procedures and flow of fund arrangements. The lack of a satisfactory flow of budgeted funds was a recurrent theme of almost all the supervision mission reports on this project;
- (b) equally important is the need, both at preparation and appraisal stages, to ascertain the availability of land, physical plans and designs for civil works and pay attention to details of construction costs, including physical contingencies (para 27);
- (c) the project experience also has shown that, where appropriate, consideration should be given to training a core group of project personnel in project accounting procedures to meet Bank requirements;
- (d) attention should be paid at supervision not only to the establishment of institutions and other instruments, as required under the covenants of the project, but to the 'substantive' aspects of their implementation (para 30);
- (e) sustained management of community-planted forests is only likely if the communities themselves have a larger measure of responsibility for site selection and plantings and their tree tenure rights are well defined from the beginning. It is essential from the outset to establish proper procedures to ensure harvesting rights accrue to the participating communities. Under the follow-up project these problems have been addressed;
- (f) it is important to recognize that when a project is based on innovative techniques and concepts and it is the first time the implementing agency is to work with an external financing agency, start-up is likely to be slow and either modest targets should be adopted or disbursement periods should be longer; and

- (g) the experience of the project also suggests that components included at appraisal without adequate studies, are not likely to do very well.

I. Borrower Performance

41. The Government's performance has to be viewed in the following perspectives. The project was the most innovative and largest-scale operation in forestry ever undertaken by the Government. The Forestry Department itself had no previous experience in executing any World Bank project. Implementation suffered due to a combination of factors: Government's procedural rigidities; delays in the (a) appointment/deployment of key project staff (e.g. for the past three years, the decision has been deferred to appoint a capable full-time director for the CFAD); (b) clearance of technical assistance consultants; (c) release of budgeted funds to meet plantation development requirements; and (d) transferring management responsibilities to the panchayats. Implementation of the WB supervision missions' recommendations concerning structure and organization, policy adjustments and deployment of manpower resources was also slow. Existing structural and functional divisions within the Government have also been causing some operational inefficiencies. An encouraging feature is that the Government has been responding to emerging problems and has initiated some measures (e.g. agreements to form user groups, review and improve financial procedures) to address some of these problems during the follow-up project.

J. Project Relationship

42. The Bank relationship with the main Government agency responsible for project execution has, in general, been good. Both the Bank and Government would have gained if the WB Resident Mission could have been strengthened and given the responsibility to liaise with the key Government officials involved in day-to-day implementation, monitor overall implementation progress and assist them to deal with locally resolvable operational issues (e.g. preparation of reimbursement claims, scrutiny of construction designs).

K. Consulting Services

43. Services rendered by project consultants and contractors were considered generally satisfactory by the Government.

L. Project Documentation and Data

44. The project covenants reinforced institutional changes, enabling the project to achieve its main objectives. In retrospect, it would appear that inclusion of a special covenant on benefit aspects would have been more productive, obliging the Government to take effective action to specify the benefit sharing arrangements for the project plantations and speed up the handing over of the authority and management responsibility to the beneficiaries.

45. Documents on the project, including preparation and appraisal reports, credit agreement, supervision and mid-term review mission reports, a series of technical working papers prepared under the FAO/UNDP TA project, and Government progress reports on CFAD activities - all helped project implementation and also

provided useful information for preparing the PCR. However, cost information was not kept in detail to allow realistic comparisons with appraisal estimates. This is because three different Government units maintained separate accounts without ever consolidating them according to either project components or expenditure categories. Also, very little information was collected on the post plantation performance of PF and private plantations, beneficiaries and benefits, including biomass yields of plantations. The Monitoring and Evaluation Unit established under the project did not undertake any evaluation of the project impact. There is, indeed, a clear need to pay attention to this aspect during the follow-up project.

PART II - PROJECT REVIEW FROM BORROWER'S PERSPECTIVE

(Part II has not been received)

PART III - STATISTICAL INFORMATION

A. Related WB Loans and/or Credits

Loan/Credit Title	Purpose	Year of Approval	Status
Credit 1400-NEP (Second Forestry)	To establish state, private, community, agro-forestry plantations and to improve selected natural forests in the Terai.	1983	On-going
Credit 1727-NEP	Rasuwa-Nuwakot Rural Development Project - includes a forestry component re-phasing the Government's Community Forestry Policy.	1986	On-going
Credit 1769-NEP	Structural Adjustment Credit - to develop an appropriate policy environment for the implementation of Community Forestry Programme in Nepal.	1987	Completed
Credit 2028-NEP	Develop a Community Forestry Programme in the Hills	1989	Effective May 14, 1990

B. Project Timetable

Item	Date Planned	Date Revised	Date Actual
Identification (EPS)	September 1978	-	Sept. 1978
Preparation	Jan./Feb. 1979	-	Jan./Feb. 1979
Appraisal mission	April/May 1979	-	May/June 1979
Negotiations	31 October 1979	-	31 October 1979
Board approval	18 December 1979	-	22 April 1980
Signing	-	-	22 May 1980
Effectiveness	-	-	22 September 1980
Credit closing	30 June 1988	22 June 1988	30 June 1989
Credit completion	-	-	7 May 1990

Comments:**47. Issues raised at Preparation:**

- (a) Need for Government approval for recommended organizational changes.
- (b) Confirmation required on availability of office facilities for CFAD.

48. Issues raised at Appraisal:

- (a) Payment of project allowance to non-project staff (mission recommended to restrict it to project staff).
- (b) Cost recovery - (mission recommended that no cost recovery was feasible).
- (c) Amendments required to Forestry Act 1961 and associated Forestry Rules 1978.

C. Credit Disbursements (US\$ million)

Year	Cumulative Disbursement		Actual as % of Estimate	Actual as % of Total
	Appraisal Estimate	Actual		
1980	0.50	0.00	-	-
1981	3.00	0.38	12	2.1
1982	7.00	0.61	8	3.6
1983	12.00	1.19	10	7.0
1984	14.50	3.20	22	18.0
1985	16.40	6.60	40	38.9
1986	17.00	10.12	59	59.6
1987	-	14.76	-	84.2
1988	-	16.93	-	99.6
1989	-	17.00	-	100.0

Date of Final Disbursement: 6 January 1989

D. Project Implementation (1979/80 to 1987/88)

Indicators	Appraisal Estimate	Actual (or PCR Estimates)
1. Participating Panchayats (no.)	340	752
2. Nurseries (no.)	391	788
3. Plantations (PF+PPF) (ha)	15,560	31,228
4. Private planting (no. of seedlings distributed)	900,000	6,726,020
5. Stove distribution (no.)	15,000	28,567

E. Project Costs and Financing**(1) Project Costs**

	Appraisal Estimate ... (US\$ million) ...	Actual
I. Disbursement Category (DCA)		
1-A Civil works by force account	4.70	5.06
1-B Civil works - other contracts	2.10	4.64
2. Goods and equipment	0.40	0.49
3. Training, TA and consultants	1.20	0.26
4. Staff salaries and allowances	3.00	4.05
5. Project operating costs	2.30	2.50
6. Unallocated	3.30	-
Sub-total	17.00	17.00
II. TA Funds from UNDP and USAID	6.08	6.01
III. Government Contribution	1.70	1.70
TOTAL	24.78	24.71

49. **Comments.** Government did not keep cost data in detail to enable comparison with appraisal format (see para 12.2, Part I). Hence, project cost comparisons presented in this table are based on details presented in credit agreement and credit disbursement documents, as well as the records of other project financing agencies.

(2) Project Financing

Source and Expenditure Categories	Planned Agreement (US\$ m)	Revised (1) (US\$ m)	Final (US\$ m)	Comments
IDA (for village forestry training, technical assistance and other development costs)	17.00	-	17	100%
UNDP/FAO (for technical assistance)	2.84	-	2.77	98%
USAID (for technical assistance)	3.24	-	3.24	-
HMG	1.70	-	1.70	100%
TOTAL	24.78		24.71	

F. Project Results

(1) Direct Benefits

Indicators	Appraisal Estimate	Estimated at Full Development
Benefiting panchayats (number)	340	752
Fuelwood production	190,000 m ³	350,000 m ³
Leaf fodder	330,000 tonnes in green weight (equivalent to 82,500 tonnes in dry weight)	24,500 tonnes
Employment	8,700 man-years	14,000 man-years
Reduced use of fuelwood (conservation of fuelwood)	25,000 tonnes from 15,000 stoves, each saving 1.66 tonnes per year	3,500 tonnes from 18,981 stoves, each stove saving 480 kg/year (with six months service life)

(2) Economic Impact

	Appraisal Estimate	Actual
Economic Rate of Return	16%	14% 1/
Underlying Assumptions:		
(1) SCF	0.9	0.9
(2) Project life	30 years	30 years

1/ 17%, if training and TA components are excluded.

(3) Studies

Studies	Status	Impact
Feasibility study on Extraction of Timber from High Altitude Forests	Not undertaken	-
Feasibility study on Provision of Fuelwood for Urban Areas	Completed	No notable follow-up

G. Status of Covenants

Covenant (Cr. Agreement)	Sector	Status	Remarks
1. Government to establish and maintain Community Forestry and Afforestation Division (CFAD).	(S2)	Complied with	This has since been renamed Community Forestry Development Division (CFDD).
2. Government to establish and maintain Project Coordination Committee.	(S8A)	"	-
3. Government to establish/maintain Community Forestry Coordination Committee	(S8B)	"	-
4. Government to establish and maintain Community Forestry Technical Committee.	(S8C)	"	-
5. Government to establish and maintain a Training Wing within the Ministry of Forestry.	(S8D)	"	-
6. Government to establish and maintain a Motivation and Publicity Unit within CFAD.	(S8E)	"	-
7. Government to establish and maintain a Monitoring and Evaluation Unit within CFAD.	(S8F)	"	-
8. Government to establish and maintain a Stove Improvement Unit within CFAD.	(S8G)	"	-
9. Government to employ experts to assist in carrying out the project.	(S.02)	"	-
10. Government to establish review team to examine project progress.	(S.04C)	"	Mid-term review done in 1982.
11. Government to select study team for Fuelwood Study.	(S.06C)	"	Not on time
12. TOR and composition of team for Timber Extraction Feasibility Study	(S.06D)	(Revised)	Not considered relevant
13. CFAD to issue Forest Management Plan for each village panchayat.	(S.07)	Complied with	-
14. Government to prepare National Forestry Plan	(S.08)	"	Prepared (draft Plan)
15. Government (CFAD) to issue Forest Management Plan for each project village panchayat.	"	"	-
16. Government to collect basic data, prepare TOR and select team to carry out Fuelwood Feasibility Study.	"	Complied with	-
17. Government to send audited accounts/reports due to IDA.	"	Complied with for years 1979-80	-

H. Use of Bank Resources

(1) Staff Inputs (staff weeks)

Task	Pre-FY78	FY78	FY79	FY80	FY81	FY82	FY83	FY84	FY85	FY86	FY87	FY88	FY89	FY90	Total
LENP	9.2	18.0	86.4	-	-	-	-	-	-	-	-	-	-	-	113.6
LENA	0.5	-	35.0	21.7	-	-	-	-	-	-	-	-	-	-	57.2
LENN	-	-	-	8.7	-	-	-	-	-	-	-	-	-	-	8.7
LOP	0.6	0.2	0.8	8.4	-	-	-	-	-	-	-	-	-	-	10.0
SWO	-	-	-	-	-	-	-	-	-	4.5	-	-	-	-	4.5
SPN	0.1	-	-	-	7.2	18.1	6.3	18.5	18.2	9.1	7.7	4.4	0.5	0.1	85.5
PAD	-	-	-	0.1	0.8	0.8	-	-	-	-	-	-	-	-	1.1
Total	10.4	18.2	122.2	38.8	7.9	18.4	6.3	18.5	18.2	13.6	7.7	4.4	0.5	0.2	280.6

- LENP - Activities prior to appraisal.
- LENA - Activities related to appraisal.
- LENN - Negotiation activities.
- LOP - Pre-appraisal and appraisal work by Country Department.
- SPN - Supervision time.
- PAD - Project administration work during supervision stage.

B. Missions

Mission	Month/Year	No. of Persons	Days in Field	Specialization	Performance Rating Status 1/	Type of Problem 2/
Identification	September 1978	n.a.	n.a.	n.a.	n.a.	n.a.
Preparation	January/February 1979	-	-	-	n.a.	n.a.
Appraisal	May/June 1979	6	-	Forestry, Agriculture, Sociology, Training, Stove Technology	n.a.	n.a.
Supervision 1	August 1980	1	10	Rural Development	1	P
Supervision 2	March 1981	1	25	Forestry	n.a.	n.a.
Supervision 3	September 1981	1	14	Rural Development	2	T,P
Supervision 4	December 1981	5	19	Agriculture, Forestry,2 Sociology, Manpower, Monitoring and Evaluation		M,P
Supervision 5	October 1982	1	14	Agriculture	2	M,P
Supervision 6	October 1983	1	10	Forestry	2	M,P
Supervision 7	May 1984	1	9	Forestry	2	T
Supervision 8	December 1984	1	18	Agriculture	2	T
Supervision 9	June 1985	13	3	Forestry, Management,2 Sociology		T,M
Supervision 10	November 1985	8	1	Rural Development	n.a. 3/	n.a.
Supervision 11	July 1986	15	2	Rural Development, Forestry	n.a.	n.a.
Supervision 12	April 1986	n.a.	1	Rural Development	n.a.	n.a.
Supervision 13	November 1986	15	1	Rural Development	n.a.	n.a.
Supervision 14	October 1987	16	1	Forestry	n.a.	n.a.

1/ Performance Rating: 1 = Problem-free or minor problems; 2 = Moderate problems; 3 = Major problems.

2/ Type of Problem: P = Political; T - Technical; M = Managerial;

3/ Format of Supervision Reports changed since this mission. Performance status and type of problems indicators not given.

NEPAL

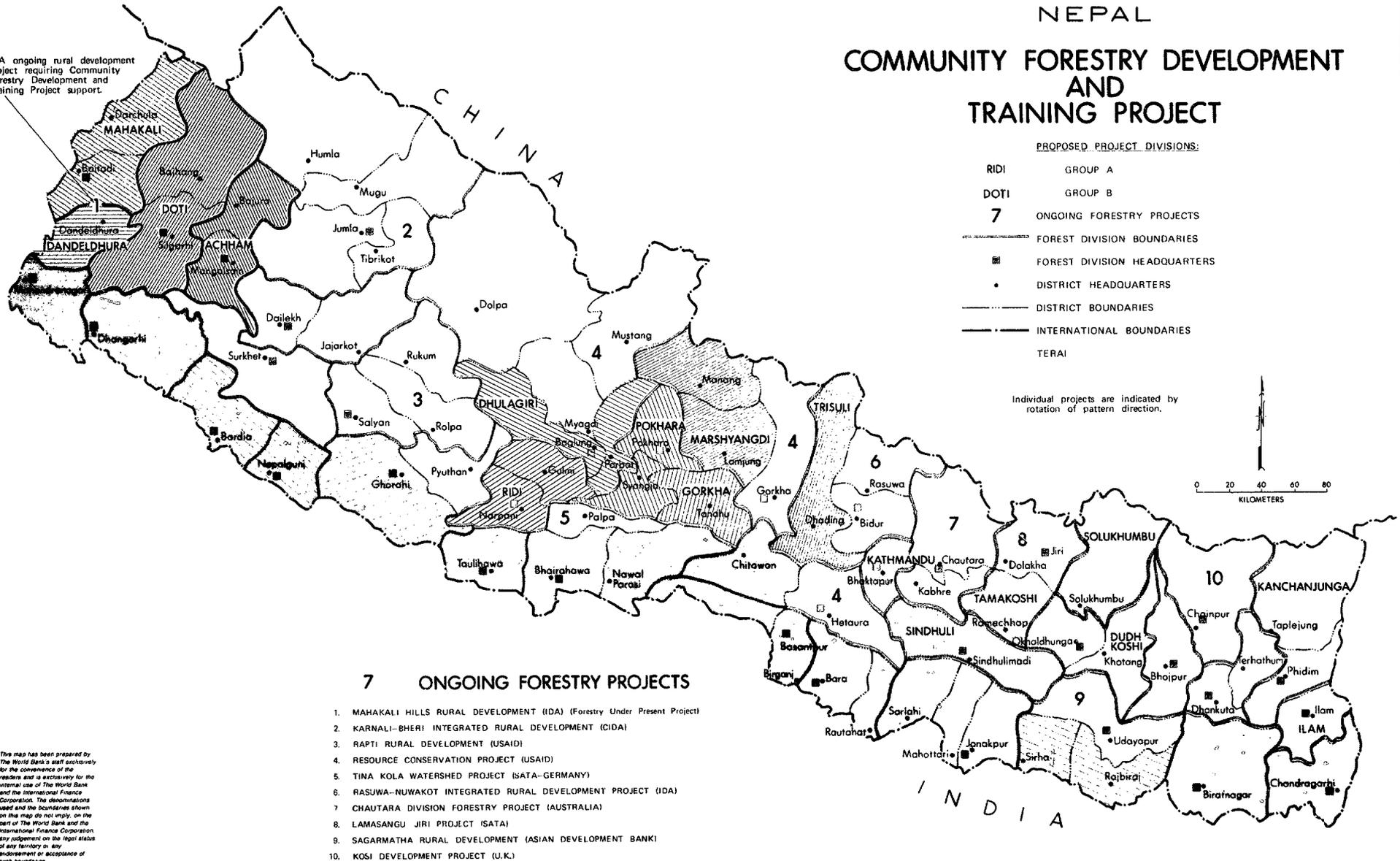
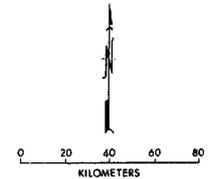
COMMUNITY FORESTRY DEVELOPMENT AND TRAINING PROJECT

IDA ongoing rural development project requiring Community Forestry Development and Training Project support.

PROPOSED PROJECT DIVISIONS:

- RIDI GROUP A
- DOTI GROUP B
- 7 ONGOING FORESTRY PROJECTS
- FOREST DIVISION BOUNDARIES
- FOREST DIVISION HEADQUARTERS
- DISTRICT HEADQUARTERS
- DISTRICT BOUNDARIES
- INTERNATIONAL BOUNDARIES
- TERAI

Individual projects are indicated by rotation of pattern direction.



7 ONGOING FORESTRY PROJECTS

1. MAHAKALI HILLS RURAL DEVELOPMENT (IDA) (Forestry Under Present Project)
2. KARNALI-BHERI INTEGRATED RURAL DEVELOPMENT (CIDA)
3. RAPTI RURAL DEVELOPMENT (USAID)
4. RESOURCE CONSERVATION PROJECT (USAID)
5. TINA KOLA WATERSHED PROJECT (SATA-GERMANY)
6. RASUWA-NUWAKOT INTEGRATED RURAL DEVELOPMENT PROJECT (IDA)
7. CHAUTARA DIVISION FORESTRY PROJECT (AUSTRALIA)
8. LAMASANGU JIRI PROJECT (SATA)
9. SAGARMATHA RURAL DEVELOPMENT (ASIAN DEVELOPMENT BANK)
10. KOSI DEVELOPMENT PROJECT (U.K.)

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