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**Report No. P-2763-NEP**

REPORT AND RECOMMENDATION  
OF THE  
PRESIDENT OF THE  
INTERNATIONAL DEVELOPMENT ASSOCIATION  
TO THE  
EXECUTIVE DIRECTORS  
ON A  
PROPOSED CREDIT  
TO THE  
KINGDOM OF NEPAL  
FOR THE  
COMMUNITY FORESTRY DEVELOPMENT AND TRAINING PROJECT

April 2, 1980

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### CURRENCY EQUIVALENTS

Currency Unit - Nepalese Rupee (NR)

Since March 20, 1978

US\$1.00	=	NRs 12.00
NR 1.00	=	US\$0.08
NRs 100	=	US\$8.33

### METRIC SYSTEM

### FINANCIAL YEAR

July 16 - July 15

### ACRONYMS

CFAD	-	Community Forestry and Afforestation Division
CFU	-	Community Forestry Unit
ICB	-	International Competitive Bidding
MEU	-	Monitoring and Evaluation Unit
MPU	-	Motivation and Publicity Unit
PF	-	Panchayat Forest
PPF	-	Panchayat Protected Forest
SIU	-	Stove Improvement Unit
UNDP	-	United Nations Development Programme
USAID	-	United States Agency for International Development

### ABBREVIATIONS

ha	-	hectare
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NEPALCOMMUNITY FORESTRY DEVELOPMENT AND TRAINING PROJECTCredit and Project Summary

Borrower: Kingdom of Nepal

Amount: US\$17.0 million

Terms: Standard

Project

Description:

The proposed project would be the first phase of a twenty year national forestry program aiming to develop community forestry in the Hills and to establish training facilities in Nepal to satisfy needs for qualified forestry and soil and water conservation personnel. The proposed project would increase supplies of fuelwood in Hill areas through establishment of new plantations and rehabilitation of degraded forests. The Ministry of Forest would be reorganized and strengthened through the provision of supporting services and training facilities. Technical assistance would be provided to assist in execution of field planting programs, in organization and administration of the new Community Forestry and Afforestation Division, and in establishment of the training and research programs. Production from project plantings would reach a peak in year 20 of the project when timber from the Panchayat Forests is clear-felled; total production in that year would provide about one-third of the total fuelwood requirements of the 1.9 million people in the 340 panchayats participating in the project. The annual sustainable yield of fuelwood from Panchayat Protected Forests and private plantings would be sufficient to provide the full requirements of 10% of the project area population. The project is designed to minimize the risks of inadequate community participation, through the work of the monitoring and evaluation and the motivation and publicity units, as well as the retraining and upgrading of forestry staff in a methodology for successful implementation of such programs. Furthermore, the project provides for a midterm review to evaluate the progress of the program and recommend adjustments if needed.

<u>Estimated Cost of Project: 1/</u>	<u>Component</u>	<u>US\$ Million Equivalent</u>		
		<u>Local</u>	<u>Foreign</u>	<u>Total</u>
I.	<u>Village Forestry Program</u>			
	Panchayat Forests	0.73	0.08	0.81
	Panchayat Protected Forests	0.36	0.04	0.40
	Private Plantings	0.01	-	0.01
	Nursery & Forestry Development	2.95	0.33	3.28
	Subtotal	4.05	0.45	4.50
II.	<u>Project Administration</u>			
	Project Organization	4.50	1.29	5.79
	Stove Improvement	0.16	0.08	0.24
	Subtotal	4.66	1.37	6.03
III.	<u>Training</u>	2.12	2.26	4.38
IV.	<u>Technical Assistance</u>	0.41	3.69	4.10
V.	<u>Midterm Review and Studies</u>	0.05	0.22	0.27
	Base Cost	11.29	7.99	19.28
IV.	<u>Contingencies</u>			
	Physical	0.67	0.14	0.81
	Price	3.08	1.61	4.69
	Subtotal	3.75	1.75	5.50
	<b>TOTAL PROJECT COST</b>	<b>15.04</b>	<b>9.74</b>	<b>24.78</b>

Financing Plan:

	<u>US\$ Million Equivalent</u>		
	<u>Local</u>	<u>Foreign</u>	<u>Total</u>
IDA	12.7	4.3	17.0
Government	1.7	-	1.7
UNDP	0.3	2.5	2.8
USAID	0.4	2.9	3.3
Total	15.1	9.7	24.8

Estimated IDA  
Disbursements:

<u>IDA FY</u>	<u>US\$ Million Equivalent</u>						
	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>	
Annual	1.5	3.5	4.5	4.0	2.0	1.5	
Cumulative	1.5	5.0	9.5	13.5	15.5	17.0	

Rate of Return: 16%

Staff Appraisal  
Report:

No. 2663-NEP dated March 25, 1980.

Map:

IBRD No. 14534

1/ Includes a negligible amount of taxes and duties.

INTERNATIONAL DEVELOPMENT ASSOCIATION

REPORT AND RECOMMENDATION OF THE PRESIDENT  
TO THE EXECUTIVE DIRECTORS  
ON A PROPOSED CREDIT  
TO THE KINGDOM OF NEPAL  
FOR A COMMUNITY FORESTRY DEVELOPMENT AND TRAINING PROJECT

1. I submit the following report and recommendation on a proposed development credit to the Kingdom of Nepal for the equivalent of US\$17.0 million on standard IDA terms to help finance a Community Forestry Development and Training Project. The United Nations Development Programme (UNDP) and the United States Agency for International Development (USAID) are expected to provide about US\$6.1 million equivalent on a grant basis for technical assistance and training requirements of the project (para 42).

PART I - THE ECONOMY

2. The most recent economic report entitled "Nepal-Development Performance and Prospects" (Report No. 2692-NEP) was distributed to the Executive Directors on December 14, 1979. The principal findings of the Report are described below. Country data are shown in Annex I.

3. Nepal is one of the least developed countries in the world. Per capita income is estimated at \$110 (1977), and health and education standards are well below the average of South Asia: life expectancy at birth is about 45 years, infant mortality 150 per thousand, and adult literacy 19%. The population, growing at the rate of 2.6% a year, is estimated at 13.3 million (1978). Over 90% of the population live in rural areas.

4. The economy of Nepal centers around agriculture. It accounts for 68% of GDP and 75% of merchandise exports, and provides a livelihood to over 90% of the population. In addition, most of the industrial sector, which comprises about 9% of GDP, processes agricultural raw materials. About 25% of total rural incomes are estimated to arise from non-agricultural activities. Cottage industries are one of the most important of these, engaging over 1 million people and comprising about 7% of GDP. They provide basic consumer goods in the many small, isolated markets where such goods would otherwise not be available.

5. As a small open economy, Nepal is highly susceptible to developments in India. The Terai, which lies along the Indian border, has close and virtually free trading links with India, and accounts for about 60% of the country's GDP, and about 40% of the population. The Kathmandu Valley, the administrative and commercial center, is closely linked with the Terai, but at significant transportation costs. The rest of the country, the Hills and Mountains, is almost inaccessible and consists of a large number of fragmented markets.

6. When Nepal adopted economic and social development as major government objectives in the early 1950s, there was virtually no economic or administrative infrastructure. Initial development efforts were necessarily concentrated on establishing a foundation for future development. During these early stages, it was inevitable that growth would remain slow and that there would be little if any increase in per capita income. However, the Fifth Development Plan (1975/76-1979/80) was to be a turning point; it was believed that the country was poised for more rapid growth on the order of 4-5% annually. The level of investment was to increase substantially and its focus to shift towards the more directly productive sectors and the social services.

7. Public investment performance has been excellent; development expenditures have grown at over 15% annually in real terms and the Government has been relatively successful in reorienting investment away from the transport sector towards agriculture and the social services. However, few of the other Fifth Plan objectives have been achieved. The GDP growth rate is likely to average only 2.4% per year, mainly because of poor agricultural performance. Little progress has been made in increasing agricultural productivity and agricultural production increased at an annual rate of only 0.7% during the first four years of the Fifth Plan. Growth in other sectors has been mixed, with the poor agricultural performance limiting the growth of agro-related industries. Production in several large industries including jute goods, sugar, leather goods, and cement have increased but most Fifth Plan targets will go unmet. In the services sector, tourism has been dynamic, but it still only contributes about 1% of GDP.

8. The economic situation deteriorated markedly in 1979/80 and is now worse than it has been in many years. The poor monsoon in South Asia in 1979 has had a severe impact on Nepal's foodgrain production in 1979/80. Both the maize and rice crops suffered major losses, and as a result, agricultural production is likely to decline by 4%. The non-agricultural sector continues to be constrained by supply bottleneck problems and delays in the preparation of new development projects in the public sector. This sector's growth is expected to be only about 4% in 1979/80, which when combined with the decline in agriculture, gives a 1% decline in GDP.

9. The disappointing overall performance of the domestic economy during the Fifth Plan period has been accompanied by a widening trade deficit. Imports have grown under the impetus of the Government's development program while the trend in export earnings has been sluggish due to declining rice exports. The deterioration on the trade account has been partly covered by increased tourism receipts and remittances from Gurkhas (soldiers from Nepal serving in the British or Indian armies). Foreign assistance in the form of grants and concessionary financing have generally ensured that the overall balance remained in surplus. Foreign exchange reserves in July 1979 were equivalent to nearly nine months of imports. However, the shortfall in foodgrain production in 1979/80 could have a serious impact on Nepal's external position, since not only will rice exports further decline, but foodgrains will have to be imported, this all coming at a time when Nepal's oil bill is rising steeply. The Government has therefore appealed to the international community for emergency assistance in obtaining foodgrains and for help in

distributing food to the shortfall areas; so far donors have committed 33,000 tons of foodgrains.

10. On March 31, 1978, the authorities replaced a complex system of multiple exchange rates and exchange and trade restrictions with a dual exchange system. Transactions with India, which were virtually free from restrictions, were unaffected by these changes. New treaties on trade and transit with India were also concluded in March 1978. Under the dual exchange rate system, Nepal maintains a basic rate of Rs 12.00 per dollar, with a second, premium rate applying for all merchandise trade with third countries except for imports of certain development goods. On February 21, 1980, the premium rate was changed from Rs 16.00 per dollar to Rs 14.00 per dollar, but the exemption from the second rate was restricted to only imports of petrol and petroleum products, cement and chemical fertilizers. These exchange rate adjustments involved an appreciation of about 14% for exports to third countries and an overall appreciation of about 2% for imports from third countries. But this was partly offset by (i) withdrawing the 12% duty on exports of raw jute; and (ii) raising import duties on a wide range of imports from third countries. However, with the exception of raw jute exports, earnings in domestic currency from exports to third countries will decline, leading to a possible shift of some exports to India. The overall trade balance is likely to be adversely affected by the recent measures.

11. The poor long-run performance of the economy is chiefly due to the failure of agricultural production to keep pace with population growth. Over the period 1967-77, foodgrain production grew at an average annual rate of only 1.5%. Increases in the area under cultivation account for almost all of this, since average yields rose by only 0.1% annually. Although poor monsoons have adversely affected agricultural production, the more fundamental reason is the failure to exploit more fully the irrigation infrastructure. In the past, insufficient attention has been paid to bringing water down to the farm level and this has been compounded by inadequate support services such as extension and research, timely supplies of improved seed and fertilizer and other inputs, credit and farm-to-market roads. However, recent major irrigation projects financed by IDA and the Asian Development Bank are addressing these problems by taking more comprehensive and integrated approaches.

12. In the Hills and Mountains, which contain only one-third of the country's agricultural land and yet have nearly two-thirds of the population, population pressures have pushed cultivation up steep hillsides and onto marginal land; average yields have actually declined. Population density on agricultural land in these areas is higher than in Bangladesh. Malnutrition is acute; food production meets only two-thirds of minimum subsistence needs. Because they have little to trade except their labor, one-third of the inhabitants of these Hill areas migrate seasonally to the Terai plains and northern India for food and work. Since the early sixties, an estimated 400,000 have migrated permanently, and there are signs that this exodus is accelerating.

13. The seriousness of the economic and social problems confronting Nepal calls for a well focused development strategy that directly addresses the difficult choices to be made. The revised Fundamental Principles of the Sixth Plan recently adopted by the Government and endorsed by members of the Nepal Aid Group at its January 31, 1980 meeting, is an important milestone in the Government's efforts to evolve a program that meets Nepal's needs. The highest priority is placed on developing agriculture, including revitalization of Hill food production to meet local requirements since significant agro-climatic specialization between the Hills and Terai is feasible only in the longer run. At the same time, since land holdings in the Hills are too small to generate much more than subsistence needs, programs will be started to encourage diversification into other activities such as small-scale and cottage industries to supplement Hill incomes. For the Terai, the strategy is to continue efforts to realize the Terai's considerable potential for increasing production of foodgrains and cash crops. The irrigation infrastructure is to be more fully utilized and improvements to extension services and associated inputs concentrated on those areas with irrigation facilities. Rural electrification through mini-hydel is seen as an important element in providing for increased production in rural areas. Reafforestation programs are given priority in order to provide fuelwood and fodder as well as to reduce soil erosion.

14. While these efforts in the directly productive sectors merit urgent attention, Nepal faces similar challenges in developing its human resources. Although curbing population growth requires major actions, selective programs in education and health can greatly assist population planning as well as alleviate human suffering and lay the basis for future increases in productivity. The Government's strategy recognises that the approach must be selective since programs for meeting basic needs generally have only a long-term impact on manpower development but divert resources away from activities more directly and immediately related to production. Increasing foodgrains production will meet the major need of improved nutrition. Better and more readily available supplies of drinking water and fuelwood will meet other needs, while also freeing labor currently spent in their collection. Basic health facilities are to be expanded through integrated community health posts, while in education, stress is placed on improving the quality of primary and adult vocational education. Family planning programs are to be stepped up. The other basic need to be met in rural areas is improved transport, and the Sixth Plan will include programs to improve trails, tracks, and suspension bridges.

15. For Nepal to establish a basis for more rapid and sustained growth, the structure of its economy will need to change since its present dependence on agriculture limits the economy's overall growth potential to about 4% per year. Tourism offers perhaps the best near-term potential for increased foreign exchange earnings; however, efforts are needed to reduce its capital intensity, strengthen linkage with other local industries and extend its benefits beyond the Kathmandu Valley. Hydropower also offers some possibilities, but neither it nor tourism will solve Nepal's increasing unemployment problems. In the long run, Nepal must diversify and develop its industrial sector. Obviously, efforts in this sector must be on a highly selective basis. The multiplicity and complexity of the constraints to industrial

development, including the lack of natural resources and a skilled labor force, as well as Nepal's small domestic market and landlocked position will nullify any generalized approach. Public enterprises need to operate more efficiently, village and cottage industries should be promoted. Beyond this, joint ventures with India, for example, as in cement production, may be attractive. The preconditions for industrialization must be established in the near future or there is a danger that Nepal will always be struggling to move its economy beyond subsistence. These include providing financial incentives, research and extension services on the technical, financial and marketing aspects of enterprise, and the upgrading of manpower skills in the areas where Nepal may have a comparative advantage.

16. Nepal has made significant progress in mobilizing domestic resources to support its development efforts, considering the extreme poverty, low degree of monetization, and fragmented nature of the economy. Revenue grew at 16% a year in current terms between 1969/70 and 1978/79, while as a percentage of GDP it increased from 5% in 1969/70 to about 9% in 1978/79. Over the same period, the Government was able to maintain savings on current account in excess of 2% of GDP, a good achievement for a country in Nepal's economic position. However, this excellent record is now in jeopardy. Revenues from income and land taxes declined in 1978/79 and, although total revenues grew by 14%, the bulk of the increase came from taxes on international trade as a result of higher imports. No real growth in total revenues is expected during 1979/80, after allowing for inflation. This slowdown reflects not only the weak economy in 1979/80, but also the impact on the tax system of the political difficulties facing Nepal. While only limited scope exists for discretionary tax measures, there is potential for increased tax revenues from agriculture, particularly in the Terai. Revenues could be increased through improving the tax machinery, and the government has approved, in principle, various administrative reforms in this direction, including the formation of a Special Revenue Service.

17. Foreign assistance has been a decisive factor in Nepal's development. During the Fifth Plan, foreign financing equalled about 45% of development expenditures. In view of the limited prospects for increased domestic resource mobilization, foreign financing requirements may be about 60% of planned Sixth Plan development expenditures, which amount to about Rs 10 billion or over \$800 million at 1979/80 prices. Aid commitments need to average about \$225 million annually during 1980-82 compared with \$160 million during 1977-79. However, even this level of foreign assistance would not provide the Government with sufficient resources to meet increasing consumption demands. Additional aid, either through financing a higher proportion of total project costs or in the form of commodity assistance, could provide budgetary support to meet pressing recurrent expenditure requirements, particularly in the social sectors.

18. Although foreign aid commitments and disbursements grew by over 25% annually during the Fifth Plan period, only 40% of disbursements included in the Government's budget were from foreign borrowing, the remainder being grants. As of December 31, 1978, official foreign debt outstanding was only US\$88 million, of which US\$75 million was due to multilateral agencies.

These loans were obtained on a highly concessional basis and the grant element of total aid remains in excess of 90%. As a result, debt service payments were only US\$3.1 million during 1978/79, equivalent to less than 2% of exports of goods and services. Medium-term prospects are also good; by 1981/82 total service on existing debt is expected to amount to only US\$5.1 million, still less than 2% of projected goods and services exports.

## PART II - BANK GROUP OPERATIONS IN NEPAL

19. Bank Group operations in Nepal began in FY70 with an IDA credit of US\$1.7 million equivalent for a telecommunications project. In the following nine years, 18 additional credits were approved, bringing total IDA assistance to Nepal to US\$201.4 million equivalent, net of cancellations. In view of Nepal's many development needs, this assistance has been for projects in a wide variety of sectors. Six of these sectors account for 89% of IDA credits by amount: irrigation (29% for 4 projects); power (20% for 1 project); telecommunications (11% for 3 projects); highways (10% for 2 projects); water supply and sewerage (10% for 2 projects), and rural development (9% for 2 projects). The remaining 11% of IDA assistance has been for one project in each of the areas of settlement (3%), technical education (3%), tourism (2%), technical assistance (1%), and industrial development financing (2%). The proposed credit would be the first in FY80, bringing the total amount of IDA assistance to Nepal to US\$218.4 million equivalent, net of cancellations. No Bank loans have been made to Nepal. IFC made its first investment in Nepal (\$3.1 million) in a hotel project in Kathmandu in FY75. Annex II contains a summary statement of Bank Group operations as of February 29, 1980, and notes on the execution of ongoing IDA projects. It shows certain delays in the implementation of these projects, particularly during the initial periods. These delays have been largely due to Nepal's limited technical and managerial capabilities. In order to assist Nepal in coping with this constraint, considerable technical assistance is being given by Bank Group staff, including our Resident Mission in Kathmandu. As a result, improvement in the rate of disbursements is being realized. During FY78, US\$11.4 million equivalent were disbursed compared to US\$12.8 million equivalent disbursed during the entire previous seven years; disbursements during FY79 improved again to \$18.2 million equivalent. Disbursements during the first eight months of FY80 indicate that this improved pace is being maintained with US\$13.2 million equivalent disbursed during that period.

20. Bank Group lending to Nepal has so far been at a modest level compared to the country's need for external assistance. The international community has persistently shown considerable interest in Nepal's economic development and, to date, shortage of funds has not been a bottleneck. The main constraint on the utilization of increased aid has been Nepal's limited absorptive capacity, affecting the pace of project preparation and implementation. The Bank is assisting the Government in project preparation through the Technical Assistance Credit and by acting as executing agency for a number of technical assistance projects in the current UNDP Five-Year Program. The Bank Group has also addressed the problem of absorptive capacity through its role in organizing the Aid Group for Nepal.

21. The Bank Group's current strategy places major emphasis upon the directly-productive sectors (particularly agriculture) and the development of complementary infrastructure, including feeder roads (particularly connecting the Hills to the Terai), communications and hydroelectric power. Preparation of projects in irrigation, food production, grain storage, cottage/small industry, water supply and power is under way.

### PART III - THE FORESTRY SECTOR

22. The present forest area of Nepal is about 4.5 million ha or about 32% of total land in Nepal -- about 2.8 million ha in the Hills and 1.7 million ha in the Terai. Forestry, including logging, contributes about 10% of agricultural output, or roughly 6-7% of GDP. Forests above an altitude of 2,600 meters consist mainly of conifers, with some hardwoods; much of this forest is overmature and inaccessible. The forests in the Hills, lying between 2,600 and 300 meters, vary considerably and are scattered in patches. In general, fir and oak predominate at higher altitudes, gradually giving way to chir pine, prunus, castanopia, schima, and alnus at medium elevations, and ultimately to sal, a hardwood. In the Terai (below 300 meters) mixed hardwood forest, mainly sal and asna, is found, which contains no softwood species.

23. Forestry in the Hills is under great pressure from increasing population density, scarcity of agricultural land, and maintenance of livestock herds which significantly exceed the carrying capacity of the upland pastures. This in turn has caused considerable problems of soil erosion, loss of potential agricultural lands, drying up of mountain streams and severe downstream flooding and sedimentation. Because of the increasing difficulty of absorbing the growing population in the Hills, many have moved down to the Terai, clearing forests and attempting to establish agricultural settlements. Recent studies by the Government indicate that continued encroachment into the forests for fuelwood, fodder, and settlement is inevitable and that accessible forests in the Hills could disappear within 14 years and those in the Terai within 25 years. In the last decade, the Government figures show a reduction in forest land by over 25%. The rate of consumption of forest resources is likely to have been even greater, because many areas now classified as forest are in fact degraded wasteland with few or no standing trees.

24. Overshadowing all other forms of wood use in terms of volume and forest area requirement is the demand for fuel wood, which in rural areas accounts for 95% of all wood consumption. For the country as a whole, fuelwood accounts for 87% of all energy consumption. Per capita consumption of fuelwood is estimated at about 1 cubic meter per year; this is about four times the per capita consumption level of the Indian plains, due to the greater demand for cooked foods and heating in the Hills, and the inefficiency of the commonly-used stoves. In the Hills, forest fodder and pasture contribute about 74% of the feed for livestock (compared to 32% in the Terai where crop residues play a larger role). Due to overstocking in the Hills, the livestock herd is not contributing as much to the productivity of the

farm unit in the form of milk, wool, and draft power as is possible, and is in fact contributing to the degradation of the forest and agricultural resources.

25. Alternatives to fuelwood, including improved end-use efficiency, biogas, solar energy, wind, geothermal, hydroelectric, coal, and lignite are being explored, but it is highly unlikely that these sources would yield much of the total rural energy needs even in the most optimistic circumstances. And given the current sociological and religious attitudes, it is also unlikely that the livestock herd can be reduced. Therefore, to meet future demands to the year 2000 for fuelwood and about half of the fodder demand would require about 1.43 million ha of land to be reforested (1.3 for fuelwood and 0.13 for forest fodder).

26. Ownership. All forest lands were nationalized in 1957 and private ownership of forests was redefined over the course of the next several years and then limited to a maximum of 50 ha. By the Forest Act of 1961, the Government required the demarcation of forests and established a Forest Department to undertake the overall administration and management of the national forests. In recognition of the need to involve the local communities in the protection and regeneration of forests, the 1961 Act was amended to recognize two types of community forestry activities where land and rights to forest produce are granted to local communities -- the Panchayat Forest (PF) and the Panchayat Protected Forest (PPF). The panchayat system is the three-tiered political and developmental organization in Nepal, and in this case refers to the local or village level. The PF was defined as Government forest lands which have been rendered waste or contain only saplings and which require replanting; the PPF was defined as Government forest lands which require only improved management and protection to ensure adequate forest cover. Net proceeds from the sale of products from the PPF would be shared with the Government according to the recently revised forest rules on a 25:75 basis. The disposal of produce from the PF would not be subject to a royalty, but would be disposed at the discretion of panchayat and would be subject to general terms as established by the Forest Department.

27. Institutions. The Ministry of Forest is responsible for the forestry sector via its departmental activities as well as through the operations of a number of semi-autonomous government corporations dealing with timber and timber products production and sales. The main ministerial department is the Forest Department, under the direction of the Chief Conservator of Forests. The territorial organization covers the entire country and consists of nine subdivisions, known as circles, further divided into 40 divisions and 174 ranges. These forestry units do not coincide with the administrative districts of the other line Ministries. The Forest Department has been chiefly concerned with forest law enforcement and the licensing and organization of timber sales in the Terai. The Forest Department is responsible for national parks and wildlife, forest survey and research. A small program for afforestation has also been started. Within the Ministry, separate departments for soil and water conservation, botany and medicinal plants, resettlement, and planning have been established.

28. There is no training facility in Nepal at the degree or diploma level for professional forestry officers. Forest officers have, in the past, been trained at the Indian Forestry School at Dhera Dun. Training of

forest technicians at the certificate level is conducted at Hetaura in the Inner Terai, where a forestry institute has been established under Tribhuvan University. Present training is mainly oriented toward commercial forestry production in the Terai. Foresters are trained in a two year program, and until recently, forest rangers in a three year program. The third year of training to qualify as a forest ranger has now been shifted to inservice training within the Forest Department. The Forest Institute trains about 100 foresters per year.

29. Development Strategy. The Forestry Sector Review <sup>1/</sup> identified five major issues currently facing the forestry sector in Nepal:

- (a) rural energy crisis;
- (b) soil erosion;
- (c) land use policy in the Terai;
- (d) domestic industrial wood supplies; and
- (e) social and institutional constraints to implementing effective protection and development programs.

To address these issues, the Sector Review recommended that the Government forestry development strategy give priority to a national reforestation program. Such a program to ensure improved fuelwood and forest fodder supplies would also play a significant role in protecting hillsides from further erosion. The Sector Review also recommended that completion of the land use survey be expedited in order to define the forest areas in the Terai which could be safely alienated to agriculture.

30. While additional administrative and financial resources would be allocated to these programs, the key to the program was identified as the ability to mobilize the cooperation of the village people. Through the PF and PPF programs, the Government is seeking to reestablish responsibility in the local communities for forestry development and for forest protection and management. To ensure maximum impact from the forestry operation, highest priority would be given to production of fuelwood -- the most urgent and visible need. This would relieve pressure on existing forests and ease the burden on fuelwood collection.

31. The Government has also recognized that the problems of reforestation in the Hills require immediate attention and that the non-commercial nature of forestry development in the Hills would require an organization structure quite different from that working with the commercial timber and settlement operations in the Terai. To this end, the Government has established a special division within the Forest Department to handle community forestry programs in the Hills. The Forest Department has a fairly limited program of afforestation under its own resources, but has or is scheduled to participate in forestry components in multisectoral rural development projects

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<sup>1/</sup> Report No. 1952-NEP, dated August 1, 1978.

in 32 administrative districts. The proposed national community forestry program would cover all districts not presently involved under other foreign-assisted schemes.

32. Bank Group Support. The Bank Group is at present involved in an ongoing rural development project for Rasuwa and Nuwakot Districts (Credit No. 617-NEP, US\$8.0 million equivalent), which includes a program for reforestation and erosion control. This program is proceeding well with 477 ha reforested and erosion control measures to be taken to protect irrigation systems and 155 kilometers of tracks and trails. A similar program was originally proposed for inclusion in the second rural development project for the Mahakali Hills (Credit No. 939-NEP, US\$11.0 million equivalent), but was deferred to be consolidated in the countrywide community forestry project being considered here. The Bank Group has also been supporting a settlement project in the Terai (Credit No. 505-NEP, US\$6.0 million equivalent). The project was intended to introduce a novel and cheap method of extracting timber in the Terai, while at the same time, make available fertile agricultural land for settlement -- the cost of settlement being borne in a large measure by the additional profits of the timber operation. Progress has been slow, due to difficulties in the management of the forestry clearing operations, and technical assistance is being obtained to help speed up operations.

#### PART IV - THE PROJECT

33. The Project was prepared by His Majesty's Government with assistance from the FAO/IBRD Cooperative Program. It was appraised in May/June 1979, and negotiations were held in Washington in March 1980. The Nepalese delegation was led by Mr. P.K. Manandhar, Chief, Community Forestry and Afforestation Division, Ministry of Forest. The staff appraisal report (No. 2663-NEP, dated March 25, 1980) is being distributed separately. A supplementary data sheet is attached as Annex III.

#### Project Objectives

34. The proposed project would be the first phase of a twenty year national reforestation program which assigns major responsibility for forest management, development and protection to local communities. The principal objectives of the project would be to: (i) increase supplies of fuelwood in Hill areas through establishment of new plantations and rehabilitation of degraded forest areas; and (ii) establish training facilities in Nepal to satisfy the future manpower needs of the forestry sector.

#### Project Description

35. The five year project would comprise the following:
- (a) strengthening Ministry of Forest operations through establishment of a Community Forestry and Afforestation Division and upgrading forestry research activities, through provision of additional staff, training, technical assistance, buildings, equipment and facilities;

- (b) establishing forest plantations on about 11,750 ha of Panchayat Forest, rehabilitating about 39,100 ha of Panchayat Protected Forest and providing about 0.9 million seedlings for planting on private land in 340 village panchayats (Map No. IBRD 14534);
- (c) introducing 15,000 improved cooking stoves;
- (d) establishing a new facility and program for forestry training and upgrading the existing forestry institute at Hetaura, supplemented by the establishment of an inservice training wing within the Ministry of Forest, through provision of additional staff, training, technical assistance, buildings, equipment and facilities; and
- (e) providing consultant services to undertake a midterm review of the project, and feasibility studies on extraction of timber from high altitude forests and provision of fuelwood for urban areas.

#### Organization and Implementation

36. The Forest Department has been reorganized to undertake community-based forestry development. A Community Forestry and Afforestation Division (CFAD), with a Community Forestry Unit (CFU), has been established to which would be added new units for Motivation and Publicity (MPU), Monitoring and Evaluation (MEU), Stove Improvement (SIU) and Administration. The CFAD would be maintained and headed by a person with qualifications and experience satisfactory to the Association and the CFU would be maintained and headed by a person with relevant qualifications and experience (Schedule 4 to the DCA, para 2). The MPU, MEU, and SIU would be established and headed by persons with relevant qualifications and experience by August 31, 1980, and outlines of their proposed work programs would be furnished to the Association for review before December 31, 1980 (Schedule 4 to the DCA, paras 3(a) (v), (vi) and (vii) and 3(b)). Funds would be provided under the project for incremental staff and operating costs, office buildings, and vehicles and equipment. Forest officers, rangers, and foresters in the project area would be assigned new responsibilities for the community forestry program in addition to their regular duties of forest protection. Additional staff, including a forest officer to assist with administration, would be provided at forest division headquarters. The staff would receive special inservice training; additional and replacement staff would be trained at upgraded facilities for certificate and diploma level training in Nepal (see paras 40 and 41 below).

37. The establishment of overall policy and the coordination of project activities with programs and policies of other governmental agencies would be achieved through a senior level Project Coordinating Committee, to be chaired by the Secretary of Forest. Members would include the Chief Conservator of Forests, the Director General of the Soil and Water Conservation Department, the Dean of the Forestry Institute, the Head of the Forestry Research Division, and representatives of the Ministries of Home and Panchayat, Finance, Agriculture, Land Reform and Education; the Head of CFAD

would serve as secretary. At the working level, planning and implementation of project activities would be directed by the Community Forestry Coordinating Committee, to be chaired by the Chief Conservator of Forests. Members would include representatives of the Forest Institute, the Ministry of Home Panchayat, and the heads of the operating units of the CFAD. Representatives of FAO and other bilateral aid agencies would be invited to attend at the discretion of the chairman. A Community Forestry Technical Committee would be responsible for analyzing the technical aspects of project progress, for recommending changes in procedures and for introducing improved methodology. This committee would be chaired by the head of CFAD and would include the Dean of the Forestry Institute, the Heads of the Soil and Water Conservation and Research and Survey Departments, the head of the MEU of the CFAD, the silviculturalist expert to be provided by FAO, and representatives of other ongoing aid programs which have large forestry components. These three committees would be constituted before August 31, 1980 (Schedule 4 to the DCA, para 3(a)(i), (ii), and (iii)).

38. The CFU, with its chain of command through four regional sub-units, and supported by the programs of the MPU, MEU and the technical Afforestation Unit, would work with 340 village panchayats out of the 1,090 village panchayats in the Hills to prepare suitable programs of forestry development. Village panchayats would apply to the Ministry of Forest for the right to lands which they propose to be demarcated as PF or PPF. The Ministry would review the applications and the suitability of the areas proposed, and would grant to those considered acceptable on technical and administrative grounds a certificate establishing the PF or PPF. These grants would be given once the village panchayats and the CFAD have signed an agreement by which the village panchayat agrees to abide by the Forest Rules and through which the responsibilities of all parties are outlined. Forest management plans, establishing schedules for nursery work, forestry plantings, hiring of staff and the agreed rules for the management of forest resources would be issued by the CFAD for each participating village panchayat. It would be the responsibility of the village panchayats to enforce the agreed rules regarding access to and sharing of the produce and to protect the plantings from poaching, fire, and other damage. For these services, the village panchayats would receive assistance in establishing nurseries, direct financial support and technical supervision for undertaking forest plantings, and plant materials. Before a village panchayat could receive assistance under the project, it would be necessary for the CFAD to issue the agreed management plan for the respective village panchayat; the final version of the format for the management plans, satisfactory to the Government and the Association, would be issued by September 1, 1980 (Section 3.07 of the DCA). Fifty village panchayats in 10 of the 17 forestry divisions have already been identified for initiation of programs in the first year of the project. Each village panchayat scheme would be forwarded to the relevant district panchayat for approval and would be noted in the consolidated District Development Plan. The divisional forest officer would participate in the district panchayat meetings at which proposals for PF and PPF would be discussed (Schedule 4 to the DCA, para 1(a)). Under each panchayat scheme, it is expected that two nurseries would be established and project plantings of about 90 ha of PF and 115 ha of PPF would be accomplished in phases over a six year period. Works would be

undertaken by labor paid and supervised by CFU foresters. The village panchayats would be responsible for recruiting panchayat forest foremen to help with the nurseries and plantings and panchayat forest watchers to assist in the protection of the forests; these panchayat staff would also be paid under the CFU program. Villagers would be encouraged to plant trees on their own land near the homestead. These would be mainly fodder trees, but some easily propagated fruit trees could also be planted. The target would be to plant about 900 trees per year per village panchayat, with seedlings and seeds to be provided free of charge at panchayat nurseries. Seed required by the nurseries would be provided through the seed section of the Afforestation Unit. Sufficient staff would be made available to manage the seed stores (Schedule 4 to the DCA, para 1(c)). Funds would also be provided under the project for construction of office accommodation and staff quarters in each of the forest divisions, plus three additional seed stores.

### Training

39. To meet the manpower requirements for the expanding forestry programs, the proposed project would support both increased formal training in forestry at the certificate and diploma level and would assist in the establishment of training facilities within the Ministry of Forest for inservice training. It has been estimated that the Ministry of Forest would annually require the addition of 40 officers at the diploma level and 200 technicians at the certificate level to meet probable future development needs. The Forest Institute at Hetaura, which is run by Tribhuvan University and provides certificate-level training, would be upgraded by the provision of an auditorium, student hostel and living units, and staff housing. Because the training is based on the conditions in the nearby Terai and associated commercial production, a program suited to conditions in the Hills would be established at a new forestry institute in the Hills, near the Pokhara campus of Tribhuvan University. This new program would offer diploma and certificate level training for forestry and soil and water conservation. The Dean of the Forest Institute, Tribhuvan University, would be responsible for the implementation of the formal training component (Schedule 4 to the DCA, para 1(b)). Facilities for inservice training would be provided for the Ministry of Forest in Kathmandu, with field training facilities to be provided at Chautara. A new training wing, headed by a person with relevant qualifications and experience, would be established within the Ministry of Forest by August 31, 1980 (Schedule 4 to the DCA, para 3(a)(iv)). Draft curricula for the diploma, certificate, and inservice training courses have been prepared and agreed with the Association. Land acquisition for all new construction work for all four training facilities has been completed.

40. To meet the immediate staffing needs of the CFAD, twenty-five science graduates would be sent abroad, for two year courses in forestry, with five extending an additional four months for courses in forestry research. Twelve staff in the stove improvement unit would also be sent for training programs in India. Six new science/ agricultural graduates and six serving soil and water conservation and forestry officers have been selected for graduate study programs in the subjects to be part of the diploma syllabus, and thereafter to serve as lecturers for the diploma course at the new Pokhara campus. As the timing of the return of these officers is critical to the

commencement of the diploma course in 1981, all candidates have either departed or are ready to depart for these training programs in overseas universities. Lecturers and staff for the certificate level courses would also be upgraded. Of the existing staff at Hetaura, two lecturers would be sent overseas each year for three years for further non-degree training. The staff for the new certificate course at Pokhara would be drawn from the Hetaura staff and others within the Ministry. It is intended that these staff would participate in six months courses in the US or nine months FAO training officers courses in the Philippines (one staff member per year per course over a four year period). Overseas training would also be provided for three training officers of the inservice training program within the Ministry of Forest.

41. The two certificate level programs would each train about 100 technicians annually, for a total of about 700 technicians over the project period. Starting in 1984, about 40 professional officers annually would complete their training at the diploma course offered at Pokhara. The courses to be offered at the inservice training wing would cover reorientation of forest officers and foresters, the third year of training to upgrade foresters to ranger grade, and the practical needs of nurserymen and panchayat forest employees. At full development, twenty-five inservice courses would be given each year for about 2,000 staff members.

#### Technical Assistance

42. Because the concept of community forestry is new to Nepal and because of the shortage of trained forestry staff, about 115 man-years of technical assistance would be required in the early years of the project. Experts would assist in execution of the field planting programs, in the establishment of the organization and administration of CFAD headquarters, and also help establish and participate in the training and research programs. Under the UNDP program, executed by FAO, four experts would be provided to the CFAD headquarters -- forestry adviser, silviculturalist, socioeconomist for the MEU, and a communications specialist for the MPU. Under a program administered by UNDP/FAO, 14 expert foresters from various voluntary and aid programs would be provided to assist with the field programs, serving in seven of the forest divisions. The USAID program, under its Resource Conservation and Utilization Project, would provide two training officers for the Ministry's inservice training wing (forestry and soil and water conservation) and a total of about 200 man-months of services of lecturers and a coordinator for the new campus at Pokhara. It would be a condition of effectiveness that the UNDP and USAID grant documents had been duly executed (Section 6.01(a) and (b) of the DCA). Six research scientists for a period of three years each, and a consultant in stove technology, to provide advice and guidance on stove design and to assess the appropriateness of the technology being proposed, would also be provided.

43. Consultant services would also be provided under the project to prepare feasibility studies on the provision of fuelwood to urban areas from nearby woodlots and on the possibility of exploiting the currently inaccessible high altitude forests. Basic data for the urban fuelwood study would be collected by December 31, 1980; terms of reference for the study satisfactory to the Association, would be prepared by June 30, 1981, with the study team,

acceptable to the Association, to be selected by December 31, 1981 (Section 3.06(a) of the DCA). Terms of reference and the composition of the study team to carry out the high altitude forest study satisfactory to the Association, would be completed by June 30, 1981 (Section 3.06(b) of the DCA).

#### Forestry Research

44. The project would provide for the strengthening of research services within CFAD by establishing a nationwide series of provenance trials. Within the Forest Survey and Research Office of the Forest Department, applied forestry research would be conducted on high priority problems affecting forest production, through field stations established in a transect of Nepal in a climatic area contrasting with that in which field stations are being established under assistance from the United Kingdom. To assure adequate coordination of research and liaison between scientists, a national forestry research plan would be prepared by the Ministry of Forest and furnished to the Association by July 15, 1981 (Section 3.08 of the DCA)).

#### Monitoring and Evaluation

45. While it is generally understood that wood plays a major role in the life of the Hill residents, there is a lack of valid information on the extent of this role, e.g., the time involved, the mechanism for distribution of fuelwood and fodder within villages, the amount of wood used for non-fuel purposes. The MEU would undertake to provide this basic background analysis, as well as to monitor the impact of the project. The socioeconomic expert provided under UNDP/FAO program would assist the head of this unit for three years. The MEU would carry out a survey of the role of wood in the life of Hill residents, assess the techniques for introduction of the community forestry programs and improved stoves, assist the motivation and publicity unit to plan its materials and campaigns, and with the assistance of consultants, monitor and assess the progress of the project. This unit would also be responsible for preparation of project progress reports and the project completion reports for the community forestry component; Tribhuvan University would be responsible for the preparation of project progress and project completion reports on the formal training component. Progress reports would be prepared semi-annually. The project completion report would be prepared no later than six months after the closing date (Section 3.04(d) of the DCA).

46. As this project would be the first phase of a long-term program and adopts an innovative approach for Nepal, provision has been made for a midterm review. This midterm evaluation would also be the basis for the design of subsequent projects in community forestry. Terms of reference for this evaluation and the composition of the review team would be agreed with the Association by December 31, 1981 (Section 3.04(c) of the DCA).

#### Cost and Financing

47. The total cost is estimated at US\$24.8 million equivalent, including contingencies and a negligible amount of taxes and duties. As there is very little infrastructure in Nepal for community forestry development, the establishment of the project administration and the training program represent

about 24% and 18% of total project costs respectively, with capital cost representing over 30% of project administration costs and over 60% of training costs. Costs of establishing the village forests represent about 18% of total project cost. The cost estimates are updated to December 1979 prices and include physical contingencies of 10% for construction costs of buildings, nursery and forest plantations, building maintenance, and stove construction. Price contingencies have been calculated assuming international and domestic price escalations of 10.5%, 9%, and 8% per annum for 1980, 1981, and 1982 respectively and 7% thereafter. The foreign exchange cost is estimated at US\$9.7 million or about 39% of total project cost. The proposed IDA Credit would cover all the foreign exchange cost (excluding the financing for technical assistance training expected to be provided by UNDP and USAID) and about US\$12.7 million equivalent of local costs, amounting to 69% of total project cost. UNDP would provide about US\$2.84 million equivalent and USAID would provide at least US\$3.27 million equivalent on a grant basis. The Government would contribute about US\$1.7 million equivalent. The cost of individual consultant's services (except the two consultants for the inservice training wing) was calculated based on the UNDP scales of about US\$65,000 per man-year, including benefits, overheads, and other associated costs.

48. As the villagers would harvest forest products for their own use under communal arrangements, there would be no cash income and, therefore, no cost recovery is proposed. After the completion of the project, the Government would assume responsibility for all staff salaries and running costs, which would represent an increase in Ministry of Forest annual expenditure of about 18% over FY1978/1979 levels. As expenditures for the Ministry of Forest represent about 5% of the Government's annual outlay, it should be well within the capacity of the Government to sustain the project after the five year implementation period.

49. In order to ensure an early start to the project, retroactive financing of about US\$0.8 million equivalent is recommended for expenditures incurred after October 1, 1979 for provision of planting material, land preparation, plantation protection, and initial training associated with the 1980 planting season.

#### Procurement

50. Equipment and vehicles amounting to about US\$1,000,000 equivalent <sup>1/</sup> would be purchased under the project. Procurement involving contracts above US\$100,000 equivalent would be on the basis of international competitive bidding (ICB) in accordance with IDA guidelines; orders of less than US\$100,000 equivalent would be purchased under Government local tender procedures which are satisfactory to the Association. It is expected that the majority of these contracts would be for less than US\$100,000 equivalent and, therefore, procured under local procedures. Because of the remoteness of the villages in the project area and the small size of individual schemes, it would not be

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<sup>1/</sup> Net of price contingencies.

practical to group most of the civil works contracts (US\$4.45 million equivalent 1/) for ICB or, in some cases, even local competitive bidding. Consequently, these works would be undertaken by the Ministry of Forest, using local labor or by local contractors in accordance with established Government procedures which are satisfactory to the Association. Civil works contracts for the construction of some of the buildings at the new training facilities at Pokhara and at Hetaura (about US\$1,000,000 out of a total of about about US\$2,000,000 million equivalent 1/) would be subject to ICB.

#### Disbursement

51. Disbursement of funds would be on the following basis: (i) 100% of foreign expenditures and 85% of local expenditures for civil works by foreign contractors; (ii) 85% of local expenditures for civil works carried out either by local contractors or by force account; (iii) 100% of foreign expenditures for directly imported equipment, furniture, and vehicles, 100% of local expenditures (ex-factory cost) for locally manufactured goods and 75% of local expenditure for other goods procured locally; (iv) 100% of total expenditures for training; (v) 100% of total expenditures for consultant services; and (vi) 85% of local expenditures for salaries and project allowances of staff engaged in the project and for project operating costs. Disbursement against civil works carried out by force account or by local contracts costing US\$5,000 equivalent or less and against (vi) above would be made against statements of expenditure. The documentation for such expenditures would be retained by the Government and made available for inspection by IDA representatives during the course of project supervision. Requests for disbursements against other items would be fully documented.

52. The Government would cause the Ministry of Forest and the Tribhuvan University to establish and maintain separate accounts for the project in accordance with sound accounting practices and would ensure that these accounts would be audited annually by an independent auditor acceptable to IDA and furnished to the Association not later than twelve months after the end of each fiscal year (Sections 4.01(a) and (c) of the DCA). The audit report would be required to include a statement that funds disbursed against statements of expenditure had been used for the purpose for which they were provided. The documents evidencing the expenditures on account of which withdrawals are requested on the basis of statement of expenditure would be retained until one year after the closing date (Section 4.01(b) of the DCA).

#### Production

53. The main products from forests established under the project would be fuelwood and fodder. All the output is assumed to be consumed by the beneficiaries; there is no marketing mechanism for fuelwood and fodder in the Hills. Annual yields per ha would be increased significantly over present levels, and would, over the course of the project, regenerate forest resources which would otherwise simply disappear. Annual fuelwood production from the PPF would begin increasing from about the second year of planting, and from the

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1/ Net of price contingencies.

PF from about year 14 of the project. Production from the plantings financed under the project would reach a peak in year 20 of the project when the timber from the PF is clear-felled; total fuelwood production in that year is estimated to be 980,000 cubic meters, or about one-third of the total fuelwood requirements of the population of the 340 panchayats under the project. The annual sustainable yield from the PPF and private plantings would be about 190,000 cubic meters, an amount sufficient for the annual fuelwood requirements of about 10% of the project area population. Forest fodder production would increase from 47,000 tons annually (mainly grass fodder) to about 330,000 tons annually from leaf fodder by year 13. Production of both fuelwood and fodder could be substantially increased if advantage is taken of the infrastructure provided under the project and utilized to increase the area under PF and PPF schemes.

### Benefits and Risks

54. The main benefit of the project would be the increased production of fuelwood and fodder to help meet the needs of about 290,000 families living in the 340 panchayats participating in the project. Some of the project plantings would be directed at rehabilitating gullies caused by water erosion and establishing forests on hilltops above agricultural terraces. These forests would help prevent future erosion, and, as the forest canopy develops, improved ground cover would reduce runoff, and thus help ensure village water supplies from mountain streams. Increases in the production of fuelwood and fodder would reduce the rate at which cow dung and agricultural wastes would be diverted to fuel from their present use as fertilizer. At the peak year, the project would help prevent the loss of 156,000 tons of maize production, equivalent to one-third the maize production in the Hills. In addition, milk and meat production would be increased by the greater abundance and better quality fodder made available. Over the five year project period, development of nurseries, seed collection, tree planting and maintenance and construction works would provide about 2.6 million mandays of employment. The introduction of 15,000 improved stoves would result in savings of about 25,000 tons of fuelwood annually, equivalent to the annual requirements of 4,000 households.

55. Discounting the economic costs and the quantifiable benefits over a 30 year period, the economic rate of return for the project is estimated at about 16%. The costs of research, improved stoves, the midterm review and feasibility studies and the minor benefits accruing from fruit, medicinal plants, and wood for construction have been excluded from the analysis. In the absence of market prices for fuelwood and fodder, benefits have been calculated on the basis of avoided losses to maize production and increases in milk production. Sensitivity analysis shows that fuelwood yield would have to be reduced by a third, or investment costs in the CFAD structure or project plantings increase by roughly 115%-150% before the project would become economically non-viable.

56. The basic technology for reforestation and management is available and simple to apply. As the project aims to foster community involvement in reforestation programs with the initiative to participate coming from village panchayats, there is a risk that the number of village panchayats willing to

participate may not reach targets set and that the rate of induction may be discontinuous and uneven. The project is designed to minimize the risks of inadequate community participation through the work of the monitoring and evaluation and the motivation and publicity units, as well as the retraining and upgrading of forestry staff in a methodology for successful implementation of such programs. The project also provides for a midterm review to evaluate the program and recommend subsequent adjustments if needed. There is also the risk that the benefits may accrue unfairly to the more socially and economically powerful members of the village panchayat. To reduce this risk, each panchayat and the CFAD would enter into a contract outlining the responsibilities of both parties, including adoption of a forest management plan which would include rules for the distribution of forest products. As the free distribution of seedlings and seed for the project plantings may lead to excessive waste, the monitoring and evaluation unit would monitor seedling and seed distribution, planting and survival rates and study the effects of free distribution. The merits of this system would be a subject of the midterm review.

#### PART V - LEGAL INSTRUMENTS AND AUTHORITY

57. The draft Development Credit Agreement between the Kingdom of Nepal and the Association and the Recommendation of the Committee provided for in Article V, Section 1(d) of the Articles of Agreement, are being distributed to the Executive Directors separately.

58. Special conditions of the project are listed in Section III of Annex III. Special conditions of effectiveness are that: (i) the UNDP grant documents for technical assistance and support for the CFAD central office and field programs have been duly executed (para 42) and (ii) the USAID grant documents for technical assistance and support for inservice and formal training have been duly executed (para 42).

59. I am satisfied that the proposed credit would comply with the Articles of Agreement of the Association.

#### PART VI - RECOMMENDATION

60. I recommend that the Executive Directors approve the proposed credit.

Robert S. McNamara  
President

Attachments

April 2, 1980

TABLE 3A  
NEPAL - SOCIAL INDICATORS DATA SHEET

LAND AREA (THOUSAND SQ. KM.)	NEPAL			REFERENCE GROUPS (ADJUSTED AVERAGES - MOST RECENT ESTIMATE) /a		
	TOTAL	1970 /b	MOST RECENT ESTIMATE /b	SAME	SAME	BEST HIGHER
				GEOGRAPHIC REGION /c	INCOME GROUP /d	INCOME GROUP /e
TOTAL	140.8					
AGRICULTURAL	40.2					
<b>GNP PER CAPITA (US\$)</b>	40.0	60.0	120.0	191.1	209.6	467.5
<b>ENERGY CONSUMPTION PER CAPITA</b> (KILOGRAMS OF COAL EQUIVALENT)	5.0	15.0	11.0	69.1	83.9	262.1
<b>POPULATION AND VITAL STATISTICS</b>						
POPULATION, MID-YEAR (MILLIONS)	9.3	11.4	13.3	.	.	.
URBAN POPULATION (PERCENT OF TOTAL)	3.1	3.9	4.3	13.2	16.2	24.6
<b>POPULATION PROJECTIONS</b>						
POPULATION IN YEAR 2000 (MILLIONS)			23.0	.	.	.
STATIONARY POPULATION (MILLIONS)			51.0	.	.	.
YEAR STATIONARY POPULATION IS REACHED			2160	.	.	.
<b>POPULATION DENSITY</b>						
PER SQ. KM.	66.0	81.0	94.0	86.6	49.4	45.3
PER SQ. KM. AGRICULTURAL LAND	243.0	286.0	331.0	330.2	252.0	149.0
<b>POPULATION AGE STRUCTURE (PERCENT)</b>						
0-14 YRS.	41.3	42.0	42.0	44.3	43.1	45.2
15-64 YRS.	56.0	55.0	55.0	52.4	53.2	51.9
65 YRS. AND ABOVE	2.7	3.0	3.0	3.1	3.0	2.8
<b>POPULATION GROWTH RATE (PERCENT)</b>						
TOTAL	1.1	2.0	2.2	2.4	2.4	2.7
URBAN	6.5	4.3	4.4	4.1	4.6	4.3
<b>CRUDE BIRTH RATE (PER THOUSAND)</b>						
CRUDE BIRTH RATE (PER THOUSAND)	46.0	45.0	45.0	44.4	42.4	39.4
CRUDE DEATH RATE (PER THOUSAND)	29.0	23.0	19.0	16.4	15.9	11.7
GROSS REPRODUCTION RATE	3.0	3.0	3.2	3.2	2.9	2.7
<b>FAMILY PLANNING</b>						
ACCEPTORS, ANNUAL (THOUSANDS)	..	37.4	138.8	.	.	.
USERS (PERCENT OF MARRIED WOMEN)	..	0.7	17.0	7.9	12.2	13.2
<b>FOOD AND NUTRITION</b>						
<b>INDEX OF FOOD PRODUCTION</b>						
PER CAPITA (1969-71=100)	110.7	102.0	90.0	99.4	98.2	99.6
<b>PER CAPITA SUPPLY OF CALORIES (PERCENT OF REQUIREMENTS)</b>						
PERCENT OF REQUIREMENTS	92.0	94.0	95.0	93.0	93.3	94.7
PROTEINS (GRAMS PER DAY)	51.0	52.0	50.0	56.1	52.1	54.3
OF WHICH ANIMAL AND PULSE	9.0	11.0	9.2	10.4	13.6	17.4
CHILD (AGES 1-4) MORTALITY RATE	35.0	27.0	23.0	19.2	18.5	11.4
<b>HEALTH</b>						
LIFE EXPECTANCY AT BIRTH (YEARS)	37.0	42.0	45.0	49.1	49.3	54.7
INFANT MORTALITY RATE (PER THOUSAND)	..	152.0/h	..	..	105.4	68.1
<b>ACCESS TO SAFE WATER (PERCENT OF POPULATION)</b>						
TOTAL	..	2.0	9.0	31.5	26.3	34.4
URBAN	..	53.0	81.0	63.9	58.5	57.9
RURAL	..	..	5.0	20.1	15.8	21.2
<b>ACCESS TO EXCRETA DISPOSAL (PERCENT OF POPULATION)</b>						
TOTAL	..	1.0	1.0	15.7	16.0	40.8
URBAN	..	14.0	14.0	66.8	65.1	71.3
RURAL	..	..	..	2.5	3.5	27.7
<b>POPULATION PER PHYSICIAN</b>						
POPULATION PER PHYSICIAN	72000.0	49770.0/f	38650.0/f	7107.9	11396.4	6799.4
<b>POPULATION PER NURSING PERSON</b>						
POPULATION PER NURSING PERSON	..	68320.0/g	52770.0/g	12064.0	5552.4	1522.1
<b>POPULATION PER HOSPITAL BED</b>						
TOTAL	8130.0	6750.0	6630.0	2738.4	1417.1	726.5
URBAN	..	..	..	..	197.3	272.7
RURAL	..	..	..	..	2445.9	1404.4
ADMISSIONS PER HOSPITAL BED	..	..	..	..	24.8	27.5
<b>HOUSING</b>						
<b>AVERAGE SIZE OF HOUSEHOLD</b>						
TOTAL	..	5.5	..	..	5.3	5.4
URBAN	5.4	..	..	..	4.9	5.1
RURAL	..	..	..	..	5.4	5.5
<b>AVERAGE NUMBER OF PERSONS PER ROOM</b>						
TOTAL	..	..	..	..	..	..
URBAN	2.0	..	..	..	..	..
RURAL	..	..	..	..	..	..
<b>ACCESS TO ELECTRICITY (PERCENT OF DWELLINGS)</b>						
TOTAL	..	..	..	..	22.5	28.1
URBAN	30.2	..	..	..	17.8	45.1
RURAL	..	..	..	..	..	9.9

TABLE 3A  
NEPAL - SOCIAL INDICATORS DATA SHEET

	NEPAL			REFERENCE GROUPS (ADJUSTED AVERAGES - MOST RECENT ESTIMATE) /a		
	1960 /b	MOST RECENT ESTIMATE /b		GEOGRAPHIC REGION /c	SAME INCOME GROUP /d	NEXT HIGHER INCOME GROUP /e
		1970				
<b>EDUCATION</b>						
<b>ADJUSTED ENROLLMENT RATIOS</b>						
PRIMARY: TOTAL	9.0	26.0	60.0	59.5	63.3	82.7
MALE	16.0	44.0	95.0	74.9	79.1	87.3
FEMALE	1.0	8.0	25.0	43.7	48.4	75.8
SECONDARY: TOTAL	6.0	9.0	12.0	19.5	16.7	21.4
MALE	11.0	15.0	20.0	27.8	22.1	33.0
FEMALE	2.0	3.0	4.0	10.0	10.2	15.5
VOCATIONAL ENROL. (% OF SECONDARY)	0.2	6.0	22.0/i	1.3	5.6	9.8
PUPIL-TEACHER RATIO						
PRIMARY	33.0	22.0	31.0	42.2	41.0	34.1
SECONDARY	32.0	21.0	28.0	..	21.7	23.4
ADULT LITERACY RATE (PERCENT)	9.0/i	14.0	19.2	25.5	31.2	54.0
<b>CONSUMPTION</b>						
PASSENGER CARS PER THOUSAND POPULATION	0.2	0.4	..	2.3	2.8	9.3
RADIO RECEIVERS PER THOUSAND POPULATION	1.0	5.0	6.0	15.5	27.2	76.9
TV RECEIVERS PER THOUSAND POPULATION	..	..	..	..	2.4	13.5
NEWSPAPER ("DAILY GENERAL INTEREST") CIRCULATION PER THOUSAND POPULATION	0.8	2.0	8.0	6.2	5.3	18.3
CINEMA ANNUAL ATTENDANCE PER CAPITA	..	..	..	..	1.1	2.5
<b>LABOR FORCE</b>						
TOTAL LABOR FORCE (THOUSANDS)	4300.0	4853.0	6336.0	.	.	.
FEMALE (PERCENT)	40.3	40.3	40.0	21.4	24.8	29.2
AGRICULTURE (PERCENT)	94.6	93.9	93.0	66.3	69.4	62.7
INDUSTRY (PERCENT)	2.0	2.1	2.0	9.6	10.0	11.9
<b>PARTICIPATION RATE (PERCENT)</b>						
TOTAL	50.0	48.7	48.3	35.8	36.9	37.1
MALE	59.8	58.3	58.1	52.3	52.4	48.8
FEMALE	40.2	39.2	38.5	15.7	18.0	20.4
ECONOMIC DEPENDENCY RATIO	0.9	1.1	0.9	1.3	1.2	1.4
<b>INCOME DISTRIBUTION</b>						
<b>PERCENT OF PRIVATE INCOME RECEIVED BY</b>						
HIGHEST 5 PERCENT OF HOUSEHOLDS	..	..	..	..	..	15.2
HIGHEST 20 PERCENT OF HOUSEHOLDS	..	..	..	..	..	48.2
LOWEST 20 PERCENT OF HOUSEHOLDS	..	..	..	..	..	6.3
LOWEST 40 PERCENT OF HOUSEHOLDS	..	..	..	..	..	16.3
<b>POVERTY TARGET GROUPS</b>						
<b>ESTIMATED ABSOLUTE POVERTY INCOME LEVEL (US\$ PER CAPITA)</b>						
URBAN	..	..	85.0	86.5	99.2	241.3
RURAL	..	..	40.0	74.2	78.9	136.6
<b>ESTIMATED RELATIVE POVERTY INCOME LEVEL (US\$ PER CAPITA)</b>						
URBAN	..	..	..	..	91.9	179.7
RURAL	..	..	37.0	50.4	54.8	103.7
<b>ESTIMATED POPULATION BELOW ABSOLUTE POVERTY INCOME LEVEL (PERCENT)</b>						
URBAN	..	..	55.0	44.3	44.1	24.8
RURAL	..	..	61.0	52.4	53.9	37.5

.. Not available  
 . Not applicable.

## NOTES

/a The adjusted group averages for each indicator are population-weighted geometric means, excluding the extreme values of the indicator and the most populated country in each group. Coverage of countries among the indicators depends on availability of data and is not uniform.

/b Unless otherwise noted, data for 1960 refer to any year between 1959 and 1961; for 1970, between 1969 and 1971; and for Most Recent Estimate, between 1974 and 1977.

/c South Asia; /d Low Income (\$280 or less per capita 1976); /e Lower Middle Income (\$281-550 per capita, 1976); /f Personnel in government services; /g Including midwives and assistant nurses; /h 1971-73; /i Upper secondary (grades 8-10) only; /j 1962.

Most Recent Estimate of GNP per capita is for 1978.

## DEFINITIONS OF SOCIAL INDICATORS

Note: The adjusted group averages for each indicator are population-weighted geometric means, excluding the extreme values of the indicator and the most populated country in each group. Coverage of countries among the indicators depends on availability of data and is not uniform. Due to lack of data, group averages for Capital Surplus Oil Exporters and indicators of access to water and excreta disposal, housing, income distribution and poverty are simple population-weighted geometric means without the exclusion of extreme values.

LAND AREA (thousand sq. km)

Total - Total surface area comprising land area and inland waters.  
Agricultural - Most recent estimate of agricultural area used temporarily or permanently for crops, pastures, market and kitchen gardens or to lie fallow.

GNP PER CAPITA (US\$) - GNP per capita estimates at current market prices, calculated by same conversion method as World Bank Atlas (1975-77 basis); 1960, 1970, and 1977 data.

ENERGY CONSUMPTION PER CAPITA - Annual consumption of commercial energy (coal and lignite, petroleum, natural gas and hydro-, nuclear and geothermal electricity) in kilograms of coal equivalent per capita.

POPULATION AND VITAL STATISTICS

Total population, mid-year (millions) - As of July 1; if not available, average of two end-year estimates; 1960, 1970, and 1977 data.

Urban population (percent of total) - Ratio of urban to total population; different definitions of urban areas may affect comparability of data among countries.

Population density

Per sq. km. - Mid-year population per square kilometer (100 hectares) of total area.

Per sq. km. agriculture land - Computed as above for agricultural land only.

Population age structure (percent) - Children (0-14 years), working-age (15-64 years), and retired (65 years and over) as percentages of mid-year population.

Population growth rate (percent) - total, and urban - Compound annual growth rates of total and urban mid-year populations for 1950-60, 1960-70, and 1970-75.

Crude birth rate (per thousand) - Annual live births per thousand of mid-year population; ten-year arithmetic averages ending in 1960 and 1970 and five-year average ending in 1975 for most recent estimate.

Crude death rate (per thousand) - Annual deaths per thousand of mid-year population; ten-year arithmetic averages ending in 1960 and 1970 and five-year average ending in 1975 for most recent estimate.

Gross reproduction rate - Average number of daughters a woman will bear in her normal reproductive period if she experiences present age-specific fertility rates; usually five-year averages ending in 1960, 1970, and 1975.

Family planning - acceptors, annual (thousands) - Annual number of acceptors of birth-control devices under auspices of national family planning program.

Family planning - users (percent of married women) - Percentage of married women of child-bearing age (15-44 years) who use birth-control devices to all married women in same age group.

FOOD AND NUTRITION

Index of food production per capita (1970-100) - Index number of per capita annual production of all food commodities.

Per capita supply of calories (percent of requirements) - Computed from energy equivalent of net food supplies available in country per capita per day. Available supplies comprise domestic production, imports less exports, and changes in stock. Net supplies exclude animal feed, seeds, quantities used in food processing, and losses in distribution. Requirements were estimated by FAO based on physiological needs for normal activity and health considering environmental temperature, body weights, age and sex distributions of population, and allowing 10 percent for waste at household level.

Per capita supply of protein (grams per day) - Protein content of per capita net supply of food per day. Net supply of food is defined as above. Requirements for all countries established by USDA provide for a minimum allowance of 60 grams of total protein per day and 20 grams of animal and pulse protein, of which 10 grams should be animal protein. These standards are lower than those of 75 grams of total protein and 23 grams of animal protein as an average for the world, proposed by FAO in the Third World Food Survey.

Per capita protein supply from animal and pulse - Protein supply of food derived from animals and pulses in grams per day.

Child (ages 1-4) mortality rate (per thousand) - Annual deaths per thousand in age group 1-4 years, to children in this age group.

HEALTH

Life expectancy at birth (years) - Average number of years of life remaining at birth; usually five-year averages ending in 1960, 1970, and 1975.

Infant mortality rate (per thousand) - Annual deaths of infants under one year of age per thousand live births.

Access to safe water (percent of population) - total, urban, and rural - Number of people (total, urban, and rural) with reasonable access to safe water supply (includes treated surface waters or untreated but uncontaminated water such as that from protected boreholes, springs, and sanitary wells) as percentages of their respective populations. In an urban area a public fountain or standpost located not more than 200 meters from a house may be considered as being within reasonable access of that house. In rural areas reasonable access would imply that the housewife or members of the household do not have to spend a disproportionate part of the day in fetching the family's water needs.

Access to excreta disposal (percent of population) - total, urban, and rural - Number of people (total, urban, and rural) served by excreta disposal as percentages of their respective populations. Excreta disposal may include the collection and disposal, with or without treatment, of human excreta and waste-water by water-borne systems or the use of pit privies and similar installations.

Population per physician - Population divided by number of practicing physicians qualified from a medical school at university level.

Population per nursing person - Population divided by number of practicing male and female graduate nurses, practical nurses, and assistant nurses.

Population per hospital bed - total, urban, and rural - Population (total, urban, and rural) divided by their respective number of hospital beds available in public and private general and specialized hospital and rehabilitation centers. Hospitals are establishments permanently staffed by at least one physician. Establishments providing principally custodial care are not included. Rural hospitals, however, include health and medical centers not permanently staffed by a physician (but by a medical assistant, nurse, midwife, etc.) which offer in-patient accommodation and provide a limited range of medical facilities.

Admissions per hospital bed - Total number of admissions to or discharges from hospitals divided by the number of beds.

HOUSING

Average size of household (persons per household) - total, urban, and rural - A household consists of a group of individuals who share living quarters and their main meals. A boarder or lodger may or may not be included in the household for statistical purposes. Statistical definitions of household vary.

Average number of persons per room - total, urban, and rural - Average number of persons per room in all, urban, and rural occupied conventional dwellings, respectively. Dwellings exclude non-permanent structures and unoccupied parts.

Access to electricity (percent of dwellings) - total, urban, and rural - Conventional dwellings with electricity in living quarters as percentage of total, urban, and rural dwellings respectively.

EDUCATIONAdjusted enrollment ratios

Primary school - total, and female - Total and female enrollment of all ages at the primary level as percentages of respectively primary school-age populations; normally includes children aged 6-11 years but adjusted for different lengths of primary education; for countries with universal education enrollment may exceed 100 percent since some pupils are below or above the official school age.

Secondary school - total, and female - Computed as above; secondary education requires at least four years of approved primary instruction; provides general vocational, or teacher training instructions for pupils usually of 12 to 17 years of age; correspondence courses are generally excluded.

Vocational enrollment (percent of secondary) - Vocational institutions include technical, industrial, or other programs which operate independently or as departments of secondary institutions.

Pupil-teacher ratio - primary, and secondary - Total students enrolled in primary and secondary levels divided by numbers of teachers in the corresponding levels.

Adult literacy rate (percent) - Literate adults (able to read and write) as a percentage of total adult population aged 15 years and over.

CONSUMPTION

Passenger cars (per thousand population) - Passenger cars comprise motor cars seating less than eight persons; excludes ambulances, hearses and military vehicles.

Radio receivers (per thousand population) - All types of receivers for radio broadcasts to general public per thousand of population; excludes unlicensed receivers in countries and in years when registration of radio sets was in effect; data for recent years may not be comparable since most countries abolished licensing.

TV receivers (per thousand population) - TV receivers for broadcast to general public per thousand population; excludes unlicensed TV receivers in countries and in years when registration of TV sets was in effect.

Newspaper circulation (per thousand population) - Shows the average circulation of "daily general interest newspaper", defined as a periodical publication devoted primarily to recording general news. It is considered to be "daily" if it appears at least four times a week.

Cinema annual attendance per capita per year - Based on the number of tickets sold during the year, including admissions to drive-in cinemas and mobile units.

EMPLOYMENT

Total labor force (thousands) - Economically active persons, including armed forces and unemployed but excluding housewives, students, etc. Definitions in various countries are not comparable.

Female (percent) - Female labor force as percentage of total labor force.

Agriculture (percent) - Labor force in farming, forestry, hunting and fishing as percentage of total labor force.

Industry (percent) - Labor force in mining, construction, manufacturing and electricity, water and gas as percentage of total labor force.

Participation rate (percent) - total, male, and female - Total, male, and female labor force as percentages of their respective populations. These are ILO's adjusted participation rates reflecting age-sex structure of the population, and long time trend.

Economic dependency ratio - Ratio of population under 15 and 65 and over to the labor force in age group of 15-64 years.

INCOME DISTRIBUTION

Percentage of private income (both in cash and kind) received by richest 5 percent, richest 20 percent, poorest 20 percent, and poorest 40 percent of households.

POVERTY TARGET GROUPS

Estimated absolute poverty income level (US\$ per capita) - urban and rural - Absolute poverty income level is that income level below which a minimal nutritionally adequate diet plus essential non-food requirements is not affordable.

Estimated relative poverty income level (US\$ per capita) - urban and rural - Relative poverty income level is that income level less than one-third per capita personal income of the country.

Estimated population below poverty income level (percent) - urban and rural - Percent of population (urban and rural) who are either "absolute poor" or "relative poor" whichever is greater.

ECONOMIC INDICATORS

GNP PER CAPITA IN 1977 US\$110 /a

<u>GROSS NATIONAL PRODUCT IN 1976</u>	<u>US\$ Mln.</u>		<u>ANNUAL RATE OF GROWTH (% constant prices)</u>	
	<u>US\$ Mln.</u>	<u>%</u>	<u>1965-75</u>	
GDP at Market Prices	1,548	100.0	2.0	
Gross Domestic Investment	155	10.0		
Gross National Saving	78	5.0		
Current Account Balance	- 3	- 0.2		
Exports of Goods, NFS	124	8.0		
Imports of Goods, NFS	201	13.0		

OUTPUT, LABOR FORCE AND PRODUCTIVITY IN 1971-72

	<u>Value Added</u>		<u>Labor Force /b</u>		<u>Value Added</u>
	<u>US\$ Mln.</u>	<u>%</u>	<u>Mln.</u>	<u>%</u>	<u>Per Worker</u>
	<u>US\$ Mln.</u>	<u>%</u>	<u>Mln.</u>	<u>%</u>	<u>US \$</u>
Agriculture	996	68.0	5.9	93.0	169
Industry	132	9.0	0.1	2.0	1,320
Services	337	23.0	0.3	5.0	1,123
<b>Total/Average</b>	<b>1,465</b>	<b>100.0</b>	<b>6.3</b>	<b>100.0</b>	<b>232.5</b>

GOVERNMENT FINANCE

CENTRAL GOVERNMENT

	<u>Rs. Mln.</u>				<u>% of GDP</u>
	<u>1975/76</u>	<u>1976/77</u>	<u>1977/78</u>	<u>1978/79</u>	
Current Receipts	1,097.2	1,302.2	1,559.3	1,688.0	7.5
Current Expenditure	654.1	784.1	815.0	991.5	4.5
Current Surplus	443.1	518.1	744.3	696.5	3.0
Capital Expenditure	1,224.6	1,486.4	1,792.9	2,049.7	8.6
External Assistance (net)	489.5	538.1	830.7	1,019.3	3.1

MONEY, CREDIT AND PRICES

	<u>1975</u>	<u>1976</u>	<u>1977</u>	<u>1978</u>	<u>1979</u>
	<u>(Million Rs outstanding mid-July)</u>				
Money and Quasi Money	2,064	2,524	3,223	3,772	4,517
Bank Credit to Public Sector	286	480	750	966	1,154
Bank Credit to Public Enterprises	569	567	511	869	1,108
Bank Credit to Project Sector	783	716	864	1,072	1,304
Money and Quasi Money as % of GDP	12.5	14.5	18.6	..	..
General Price Index (1973/74 = 100)	116.8	115.9	119.0	132.3	136.8
Annual Percentage changes in:					
General Price Index	16.8	- 0.7	2.7	11.2	3.5
Bank Credit to Government	104.3	67.8	56.3	28.9	19.5
Bank Credit to Public Enterprises	341.1	- 0.4	- 9.9	70.1	27.5
Bank Credit to Private Sector	11.5	- 8.6	20.7	24.1	21.6

Note: All conversions to US dollars in this table are at the average exchange rate prevailing during the period covered.

/a World Development Reports 1978 and 1979.

/b Total labor force; unemployed are allocated to sector of their normal occupation.

.. not available

TRADE PAYMENTS AND CAPITAL FLOWS

<u>BALANCE OF PAYMENTS</u>	1975/76	1976/77	1977/78	<u>MERCHANDISE EXPORTS 1977/78 a/</u>	US\$ Min.	%
	(Millions US\$)					
Exports, f.o.b. b/	98.3	93.9	88.8	Foodstuff & raw materials	71.5	83.0
Imports, c.i.f. b/	156.3	166.9	209.7	Manufactures	14.7	17.0
<u>Trade Balance</u>	-58.0	-73.0	-120.9	Total	86.2	100.0
Services, net	23.2	39.4	47.6			
of which: Tourism	17.1	23.0	30.2			
Transfers, net	27.7	30.8	25.1	<u>EXTERNAL DEBT, DECEMBER 31, 1978</u>	US\$ Min.	
of which: Private Remittances	18.7	21.5	18.3	Public Debt, incl. guaranteed	87.7	
Indian Excise Refund	7.9	9.3	8.1	Non-Guaranteed Private Debt		
<u>Current Account Balance</u>	-8.2	- 2.8	-48.2	Total outstanding & Disbursed	87.7	
Official Grants	21.1	18.5	23.9			
Official Capital, net	12.1	16.3	22.7	<u>DEBT SERVICE RATIO for 1977 c/</u>		
Private Capital, net	9.6	-10.3	-10.4	Public Debt, inc. guaranteed	1.4	
<u>Change in Reserves (- Increase)</u>	-34.6	-21.7	12.0			
Gross Reserves (mid July)	120.3	145.3	135.1	<u>IBRD/IDA LENDING, (February 1980) (Million US\$)</u>	IBRD	IDA
Net Reserves	114.9	137.8	126.1	Outstanding & Disbursed		55.7
Fuel and Related Materials				Undisbursed	----	145.7
Imports of which: Petroleum	14.3	17.6	17.5	Outstanding incl. Undisbursed		201.4
Exports of which: Petroleum	--	--	--			
<u>RATE OF EXCHANGE</u>						
Through October 1975	From October 1975 through		Since March 20, 1978			
US\$ 1.00 = NRs 10.56	March 20, 1978					
NR 1.00 = US\$ 0.095	US\$ 1.00 = NRs 12.5		US\$ 1.00 = NRs 12.00			
	NR 1.00 = US\$ 0.08		NR 1.00 = US\$ 0.083			

a/ Customs basis.  
b/ Payments basis.  
c/ Ratio of Debt Service to Exports of Goods and Non-Factor Services.

. not applicable

South Asia Programs Department  
March 1980

STATUS OF BANK GROUP OPERATIONS IN NEPAL

A. STATEMENT OF IDA CREDITS (as of February 29, 1980) /a

<u>Credit No.</u>	<u>Year</u>	<u>Borrower</u>	<u>Purpose</u>	<u>US\$ Millions</u>	
				<u>IDA</u>	<u>Undisbursed</u>
Three credits fully disbursed				7.1	
373	1973	Kingdom of Nepal	Irrigation	6.0	0.5
397	1973	Kingdom of Nepal	Telecommunications II	5.5	2.5
470	1974	Kingdom of Nepal	Water Supply and Sewerage	11.8	3.8
505	1975	Kingdom of Nepal	Settlement	6.0	4.8
600	1976	Kingdom of Nepal	Kulekhani Hydroelectric	40.8	24.7
617	1976	Kingdom of Nepal	Rural Development	8.0	6.2
654	1976	Kingdom of Nepal	Groundwater	9.0	3.6
659	1976	Kingdom of Nepal	Technical Assistance	3.0	1.9
704	1977	Kingdom of Nepal	Second Water Supply and Sewerage	8.0	7.0
705	1977	Kingdom of Nepal	Industrial Development Corporation	4.0	3.6
730	1977	Kingdom of Nepal	Second Highway	17.0	12.6
772	1978	Kingdom of Nepal	Technical Education	5.7	5.6
799	1978	Kingdom of Nepal	Telecommunications III	14.5	14.5
812	1978	Kingdom of Nepal	Irrigation	30.0	29.5
856	1978	Kingdom of Nepal	Irrigation	14.0	13.9
939	1979	Kingdom of Nepal	Second Rural Development	11.0	11.0
Total Now held by IDA /b				201.4	
Total Undisbursed					<u>145.7</u>

B. STATEMENT OF IFC INVESTMENT (as of February 29, 1980)

<u>Year</u>	<u>Obligor</u>	<u>Type of Business</u>	<u>Amount of US\$ Millions</u>		
			<u>Loan</u>	<u>Equity</u>	<u>Total</u>
1975	Soaltee Hotel (Pvt) Ltd.	Hotel	<u>2.70</u>	<u>0.43</u>	<u>3.13</u>
Total commitments now held by IFC			<u>2.56</u>	<u>0.43</u>	<u>2.99</u>

/a No Bank loans have been made to Nepal.

/b Prior to exchange adjustments.

C. Projects in Execution 1/

Credit No. 373 - Birganj Irrigation Project US\$6.0 million Credit of April 18, 1973; Effective Date: July 9, 1973; Closing Date: June 30, 1980

Implementation of the project is progressing satisfactorily after initial delays in appointing engineering consultants, in field surveys and in procurement. Civil works in the surface irrigation blocks and construction of tubewells is almost completed in the groundwater areas. Irrigation operations started in 1976 from nine tubewells, and in 1977, in the first surface irrigation block. The project is expected to be completed shortly. Water charges are now being levied in areas reached by irrigation, and farmer's acceptance has been satisfactory.

Credit No. 397 - Telecommunications Project II US\$5.5 million Credit of June 20, 1973; Effective Date: September 11, 1973; Closing Date: June 30, 1980

Due to organizational problems, lack of continuity in senior management, and delay in obtaining expert assistance, there have been delays in procurement and the project is about two years behind schedule. Good progress is now being made with the assistance of experts and consultants provided by the United Kingdom and a new General Manager has been appointed. The project is now proceeding satisfactorily and present estimates are for completion by mid 1980.

Credit No. 470 - Water Supply and Sewerage Project US\$11.8 million Credit of May 8, 1974; Effective Date: June 26, 1974; Closing Date: June 30, 1978; Revised Closing Date: June 30, 1981

Design work is complete and all major contracts have been let. Project implementation is over two years behind the original schedule, primarily due to delays in letting the contracts. A management team provided by the United Kingdom is assisting the Water Supply and Sewerage Board. Work is now progressing satisfactorily. An EEC Special Action Credit was approved in July 1979, to cover some of the Governments share of the local costs of the project. During the negotiations for the EEC Special Action Credit, the implementation schedule and dated covenants were revised, and the closing date amended to June 30, 1981.

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1/ These notes are designed to inform the Executive Directors regarding the projects in execution and, in particular, to report any problems which are being encountered and the action being taken. They should be used in this sense on the understanding that they do not purport to present a balanced evaluation of strengths and weaknesses in project execution.

Credit No. 505 - Settlement Project US\$6.0 million Credit of August 14, 1974;  
Effective Date: February 20, 1975; Closing Date: July 15,  
1982

Project implementation, though still about two years behind schedule, has improved slightly over the last months and 1,550 families have been settled. Forestry clearing remains a bottleneck and technical assistance is being provided to speed up the operation. Stress has also been laid on the need for employment of adequate and experienced staff and better management and planning of operations. Because of doubts about land use policy, we are discussing with the Government reduction of project area to be newly settled from 17,600 ha to 11,100 ha.

Credit No. 600 - Kulekhani Hydroelectric Project US\$40.8 million Credit of  
January 9, 1976; Effective Date: May 18, 1976; Closing  
Date: December 31, 1981

All civil works contracts have been awarded and construction work started in December 1977. The revised estimate of project costs, excluding taxes and duties, is now US\$109 million which is some 60% higher than the estimate of US\$68 million at the time of appraisal. The increases in costs are due to a number of factors, principally design changes as a result of further geological investigations and the risk factors inherent in a major project which is remotely located. These are reflected in higher prices and implementation delays which are adding to costs. In addition, the appreciation of the Japanese yen, in which substantial part of the costs of equipment and engineering services are being paid, has increased the US dollar cost of the project. Cofinanciers are providing additional funds to cover the foreign exchange cost overrun. An IDA supplemental credit of US\$14.8 million and an EEC Special Action Credit of US\$3.0 million equivalent were approved by the Executive Directors on May 10, 1979.

Credit No. 617 - Rural Development Project US\$8.0 million Credit of  
April 30, 1976; Effective Date: July 16, 1976;  
Closing Date: December 31, 1981

Progress continues to be satisfactory, with almost all planned project actions being implemented ahead of schedule. Disbursements had been lagging due to delay of project authority in submitting disbursement applications. Interministerial cooperation is good, and at the district level, sound and practical development plans have been produced which are fully supported and understood by project farmers. Adequate financing to carry out project proposals has been made available in the budget by the Government and sites and plans for most district construction projects have been completed and construction started. Training of weavers and issuance of improved looms under a credit scheme is proceeding well. Shortage of middle-level staff in the project area for construction supervision and agricultural extension may hinder project implementation. However, arrangements have been made for more

efficient deployment of existing staff and for special training of farmers as part-time agricultural assistants. Under the associated Bank-executed UNDP technical assistance project, the assistant to the Project Coordinator and the Irrigation Advisor have nearly completed their assignments.

Credit No. 654 - Bhairawa - Lumbini Groundwater Project US\$9.0 million  
Credit of July 9, 1976; Effective Date: November 9, 1976;  
Closing Date: December 31, 1980

The project Manager and consultants, Tahal (Israel), have been appointed, and the Project Coordinating Committee has been formed. Procurement and drilling of tubewells are in progress. Twenty-seven production wells have been completed. Civil works for these wells is underway. Recent supervision missions have discussed ways for expediting procurement with the Project Authority and the consultants, for ensuring that tubewells can be energized from local power supplies, and for strengthening the agricultural staff on the project. Construction of village link roads has started. However, there is delay in implementation due to the weakness of contractors in the project area and delay in construction of transmission lines.

Credit No. 659 - Technical Assistance Project US\$3.0 million Credit of  
September 16, 1976; Effective Date: November 16, 1976;  
Closing Date: December 31, 1980

Studies for a national agricultural extension project, a silica-lime brick factory and the proposed grain storage project have been completed, while studies are in progress for river control for the Sunsari-Morang Irrigation Project and cottage industries. Arrangements for initiating additional studies are being made.

Credit No. 704 - Second Water Supply and Sewerage Project US\$8.0 million  
Credit of May 27, 1977; Effective Date:  
February 28, 1978; Closing Date: June 30, 1982

Engineering consultants have begun work, and feasibility studies, master plan updating, and final designs have been completed. A tariff specialist has been recruited, and the first contract for water meters has been awarded. Evaluation of bids for major contracts is underway. An EEC Special Action Credit was approved in July 1979 to assist in financing a portion of the Government's share of the local cost of the project.

Credit No. 705 - Nepal Industrial Development Corporation Project US\$4.0 million Credit of May 27, 1977; Effective Date: February 17, 1978; Closing Date: December 31, 1981

The UNDP-financed policy advisor has completed his assignment and the accounting and information systems advisor took up his post in February 1980. To date, subprojects for about \$1.7 M have been approved by IDA. Progress in implementation of the credit has deteriorated due to shortages of complementary local currency resources. Accordingly, disbursement have continued to lag.

Credit No. 730 - Second Highway Project US\$17.0 million Credit of October 19, 1977; Effective Date: December 23, 1977; Closing Date: December 31, 1982

Project implementation is nearly two year behind schedule due to delays in the award of contracts and the appointment of consultants. Consultants (financed by CIDA) arrived in March to provide maintenance technical assistance. The pre-feasibility study for the Bombasa-Kohalpur Road was completed in July 1978, and a proposal for the Mechanics' Training Program is under review by the Government and the Association. Seven of ten contracts have been awarded for the construction of the Tulsipur Road and three contracts have been awarded for the earthworks on the Thankot-Naubise Road. Arrangements for consulting services for supervision of construction have been finalized.

Credit No. 772 - Technical Education Project US\$5.7 million Credit of April 14, 1978; Effective Date: July 11, 1978; Closing Date: September 30, 1983

Good progress towards implementation has been made. Contracts have been signed for all civil works packages, except external works, for which the bids are being evaluated; however, equipment tendering is behind schedule. The first batch of fellowship students have completed their programs and a second batch have started their programs. A team of educational experts, financed by ODA, have begun work in the field and a program of cooperation with Paisley College of Technology, Scotland, is progressing satisfactorily.

Credit No. 799 - Third Telecommunications Project US\$14.0 million Credit of August 22, 1978; Effective Date: February 27, 1979 Closing Date: June 30, 1984.

ODA is financing the telex equipment and the satellite earth station. Project consultants have been appointed. Procurement actions have been initiated.

Credit No. 812 - Sunsari-Morang Irrigation and Drainage Development Project  
US\$30.0 million Credit of July 7, 1978; Effective Date:  
November 30, 1978; Closing Date: June 30, 1984

The Project Board has been established and the Project Manager, Senior Agricultural Officer, and consultants have been appointed. Studies for major canal structural repairs, sediment control and river training are under way. Contracts for priority works have been awarded and procurement action for equipment and civil works for Chatra Main Canal is underway. An EEC Special Action Credit of about US\$4.0 million equivalent was approved in June 1979 to help finance a portion of the Government's share of the local cost.

Credit No. 856 - Narayani Zone Irrigation Development - Stage II Project  
US\$14.0 million Credit of November 27, 1978; Effective  
Date: January 8, 1979; Closing Date: December 31, 1983

The contract for project consultants under Stage I (Nippon Koei) has been extended to cover Stage II. Contracts for surface irrigation blocks have been awarded. Procurement of the remaining civil works and for equipment is being initiated. Satisfactory progress is being made.

Credit No. 939 - Second Rural Development Project - Mahakali Hills  
US\$11.0 million Credit of August 9, 1979; Effective Date:  
January 15, 1980; Closing Date: February 28, 1985

The project would help develop the three Hill districts of Dandelhura, Baitadi, and Darchula and aims to raise agricultural production to levels whereby farmers could meet full family subsistence. The project would provide for increased agricultural and livestock production through minor irrigation development, strengthening of agricultural extension and animal health services, training, and improved availability of farm inputs. These directly productive investments would be complemented by investments in erosion control, health care, village water supplies, lower and upper secondary education, postal services, panchayat facilities, and trails and foot-bridges. The project also provides for a study of cottage industry potential and prospects, as well as for facilities and staff required for project implementation. The Project Coordinator has been named.

NEPAL

COMMUNITY FORESTRY DEVELOPMENT AND TRAINING PROJECT

SUPPLEMENTARY PROJECT DATA SHEET

Section I

Timetable of Key Events

(a) Time taken by the country to prepare the project

12 months

(b) The agency which has prepared the project

Ministry of Forest, with the assistance of  
the FAO/IBRD Cooperative Program

(c) Date of first presentation to the Bank and date  
of the first mission to consider the project

November 1977  
May 1978

(d) Date of departure of appraisal mission

May 10, 1979

(e) Date of completion of negotiations

March 14, 1980

(f) Planned date of effectiveness

August 1980

Section II

Special Bank Implementation Actions

None

Section III      Special Conditions

Condition of Effectiveness

- (a) the UNDP and USAID grant documents for technical assistance and support have been duly executed (para 42).

Other Conditions

- (a) outlines of work programs for the monitoring and evaluation unit, motivation and publicity unit, and stove improvement unit would be prepared and furnished to the Association by December 31, 1980 (para 36);
- (b) a national forestry research plan would be prepared and furnished to the Association by July 15, 1981 for review and comment (para 44); and
- (c) membership and terms of reference for a midterm review of progress of the project would be agreed with the Association by December 31, 1981 (para 46).

# 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.

0 20 40 60 80  
KILOMETERS

This map has been prepared by the World Bank's staff exclusively for the convenience of the readers of the report to which it is attached. The designations used and the boundaries shown on this map do not imply, on the part of the World Bank and its affiliates, any judgment as to the legal status of any territory or any endorsement or acceptance of such boundaries.



## ONGOING FORESTRY PROJECTS

1. MAHAKALI HILLS RURAL DEVELOPMENT (IDA) (Forestry Under Present Project)
2. KARNALI-BHURI INTEGRATED RURAL DEVELOPMENT (CIDA)
3. RAPII 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.)