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STAFF APPRAISAL REPORT

INDIA

NABARD CREDIT PROJECT

January 24, 1986

South Asia Projects Department
General Agriculture Division II

## CURRENCY EQUIVALENTS
(As applied in the report)

| | | |
|---|---|---|
| US$1.00 | = | Rs 12.00 |
| Rs 1.00 | = | US$0.083 |
| Rs 1 million | = | US$83,333 |

## WEIGHTS AND MEASURES

Metric System
1 hectare (ha) = 2.47 acres = 10,000 M2
1 ton = 1,000 kg

## CROPPING SEASONS

| | | |
|---|---|---|
| Kharif | - | June to September |
| Rabi | - | October to February |
| Summer | - | March to May |

## FISCAL YEAR

| | | |
|---|---|---|
| Government of India | - | April 1 to March 31 |
| NABARD and cooperative banks | - | July 1 to June 30 |
| Commercial Banks | - | January 1 to December 31 |

## ABBREVIATIONS AND ACRONYMS

| | | |
|---|---|---|
| ACD | - | Agriculture Credit Department (of the Reserve Bank of India) |
| ARC | - | Agricultural Refinance Corporation |
| ARDC | - | Agricultural Refinance and Development Corporation |
| CB | - | Commercial Bank |
| DCCB | - | District Central Cooperative Bank |
| DICGC | - | Deposit Insurance and Credit Guarantee Corporation |
| DRDA | - | District Rural Development Agency |
| EC | - | European Community |
| FCI | - | Food Corporation of India |
| GDP | - | Gross Domestic Product |
| GOI | - | Government of India |
| HYV | - | High-Yielding Variety |
| IDA | - | International Development Association |
| IRDP | - | Integrated Rural Development Program |
| LDB | - | Land Development Bank |
| NABARD | - | National Bank for Agriculture and Rural Development |
| NCDC | - | National Cooperative Development Corporation |
| PACS | - | Primary Agricultural Credit Societies |
| PLDB | - | Primary Land Development Bank |
| Credit Review | - | Agriculture Credit Review to be financed under the project |
| RBI | - | Reserve Bank of India |
| RRB | - | Regional Rural Bank |
| SBI | - | State Bank of India |
| SCB | - | State Cooperative Bank |
| SEG | - | Senior Expert Group |
| SGO | - | State Groundwater Organization |
| SOE | - | Statements of Expenditures |
| SWC | - | State Warehousing Corporation |

INDIA

NABARD CREDIT PROJECT

Table of Contents



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This report is based on the findings of an appraisal mission that visited India during December, 1984, consisting of Messrs. G. van Santen, A. Haji, S. Lieberman, B. Argyle, J. Manickavasagam and M. Baxter (Bank); R. Stoner (Consultant) and P. Vorage (representative of the Netherlands bilateral aid who participated full time in the appraisal). Mr. M. Virdy contributed to the report. The word processing was done by Ms. B. Bolden, Ms. H. Pratt, with the assistance of Ms. G. Burnett, Ms. C. Doden and Ms. A. Milott.

SCHEDULES AND ANNEXES

## CHARTS



## MAP

## INDIA

## NABARD CREDIT PROJECT

### Loan and Project Summary

| | |
|---|---|
| **Borrower:** | Government of India |
| **Beneficiaries:** | NABARD, for onlending to farmers for on-farm investments through participating banks. |
| **Amount:** | US$375 million (equivalent) |
| **Terms:** | Repayment over 20 years, including 5 years' grace at the standard, variable rate. |

**Onlending Terms:**

(i) GOI to NABARD: Interest would be 6.5% (net of a reduction of 0.25% for prompt repayment) per annum in respect of NABARD refinancing of terms loans of up to nine years' duration and 7.0% (net of a reduction of 0.25% for prompt repayment) in respect of NABARD refinancing of term loans of up to 15 years' duration. Repayment of principal in lump sums at the end of 9 or 15 years, respectively.

(ii) NABARD to Participating Banks:

(a) For small farmers, 1/ IRDP loans, and all loans for minor irrigation and land development, not less than: 6.5%

(b) All others, not less than: 8.0%.

Repayments to coincide approximately with collections from ultimate borrowers but not to exceed two years beyond initial amortization schedules specified in loans to ultimate borrowers refinanced by NABARD.

(iii) Participating Banks to Ultimate Borrowers:

(a) For small farmers, IRDP loans, and all loans for minor irrigation and land development, not less than: 10.0%.

(b) All others, not less than: 12.5%.

Repayments are based on borrowers' repayment capacity and types of investments financed.

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1/ Small farmers are defined as those cultivating land that provides an annual pre-development net return to the farmer and his family of not more than Rs 2,000 based on 1972 prices.

<u>Project Description</u>: The purpose of the project is to help increase agricultural production through particiption in NABARD's ongoing loan refinancing program for investments in agriculture, and to strengthen the agricultural credit system. The project includes a component for extending the existing pilot scheme for branch-level training and farm-level credit delivery systems, along with an extensive training program component for the management and operational staff of NABARD, the Land Development Banks (LDBs), commercial banks (CBs) and Regional Rural Banks (RRBs). A thorough review of the workings of the credit system would also be financed under the project. There is a risk that the more strict criteria governing branch access to NABARD refinance may not necessarily induce such branches to take the measures required to improve credit discipline. A series of covenants are designed to have NABARD take a more active role in the rehabilitation of branches to minimize this risk. Secondly, there is a risk of continued general deterioration of loan recoveries in the agriculture credit system. However, the project is designed to progressively reduce NABARD refinancing of poor-performing branches and under either of the above risk scenarios, IBRD funds would not be at risk, as repayments by participating banks to NABARD are generally made on time and NABARD's own financial position remains very sound.

**Estimated Cost: 1/**

| Item | Local | Foreign | Total |
|---|---|---|---|
| | (US$ millions) | | |
| (a) NABARD Refinancing | | | |
| (i) Schematic Loans: | | | |
| - Minor irrigation and land development | 1,413.3 | 157.0 | 1,570.4 |
| - Farm mechanization | 667.4 | 117.8 | 785.2 |
| - IRDP and other schemes | 1,522.3 | 97.2 | 1,619.4 |
| - Other (including dairy livestock, plantations, fisheries, forestry) | 885.8 | 46.6 | 932.4 |
| Subtotal | 4,488.8 | 418.6 | 4,907.4 |
| (ii) Nonschematic Loans 2/ | 330.6 | 82.6 | 413.2 |
| (b) Pilot Scheme | 22.5 | 2.5 | 25.0 |
| (c) Agricultural Credit Review | 1.6 | 1.9 | 3.5 |
| (d) NABARD's Training Programs | 5.2 | 1.3 | 6.5 |
| Total Project Cost | 4,848.7 | 506.9 | 5,355.6 |

**Financing Plan:**

| | Local | Foreign | Total |
|---|---|---|---|
| IBRD | - | 375.0 | 375.0 |
| Dutch Government | - | 5.5 | 5.5 |
| KFW | - | 21.2 | 21.2 |
| Ultimate Borrowers' equity | 426.8 | 105.2 | 532.0 |
| NABARD and GOI resources | 3,464.2 | - | 3,464.2 |
| Participating Banks' contributions | 957.7 | - | 957.7 |
| Total | 4,848.7 | 506.9 | 5,355.6 |

1/ Excluding taxes and duties.

2/ Comprising loans for crop storage, input stocks, and rural electrification.

Estimated Disbursements:

| | (US$ millions) | | | |
|---|---|---|---|---|
| | FY87 | FY88 | FY89 | FY90 |
| (a) Refinancing | | | | |
| First Tranche | 100.0 | - | - | - |
| Second Tranche | - | 80.0 | - | - |
| Third Tranche | - | - | 80.0 | - |
| Fourth Tranche | - | - | - | 80.0 |
| (b) Other Disbursements | 9.0 | 15.0 | 9.5 | 1.5 |
| Cumulative Total | 109.0 | 204.0 | 293.5 | 375.0 |

# INDIA

## NABARD CREDIT PROJECT

## I. THE AGRICULTURE SECTOR

### Introduction

1.01 Agriculture remains the mainstay of the Indian economy. Currently, farming and related activities account for 35% of Gross Domestic Product (GDP) and 29% of exports; agriculture employs 70% of the labor force. Agricultural growth has kept pace with rising domestic demand, thereby enabling the country to eliminate foodgrain imports. Agricultural output rose by 2.6% per annum between the late 1960s and the late 1970s, and increased to 2.8% since the late 1970s. In 1983/84 the combined output of wheat, rice, coarse cereals, and pulses was 152 million tons, 16% higher than the average production level of foodgrains in the previous three years.

1.02 India's agricultural gains over the past 15 years are due, in large part, to the diffusion of high-yielding varieties (HYVs) of hybrid cereals and to the more extensive application of fertilizers and other inputs. By 1983/84, fertilizer-responsive HYVs, initially introduced in India in the mid-1960s, were used on more than half the area devoted to cereal production. Fertilizer consumption, which averaged 1.8 million tons in 1967/70, rose to 7.8 million tons in 1983/84. Similarly, purchases of pesticides rose sharply during the 1970s and early 1980s. Overall, the estimated value of all inputs (including labor) rose in real terms from Rs 49 billion in 1970/71 to Rs 74 billion in 1981/82. Expenditure on cash inputs (including hired labor) by public agencies and private individuals grew even faster.

1.03 The agricultural sector has also absorbed high levels of capital investment by public agencies and private individuals since 1970. This has substantially enlarged the area devoted to irrigated crops. The irrigation potential created by publicly constructed dams and canals rose from 18 million hectares (ha) in 1968/69 to more than 30 million ha in 1983/84; land brought under irrigation, mostly by private expenditure, increased from 19 million ha in 1968/69 to 34 million ha in 1982/83. Overall, gross agricultural capital formulation is estimated to have risen in real terms from Rs 13 billion in 1970/71 to Rs 21 billion in 1981/82. Public outlays as a share of total agricultural investment increased from 25% in 1970/71 to 32% in 1981/82. Privately executed and largely farm-based investments such as minor irrigation works, pumpsets, tractors, and livestock increased in absolute terms, but less rapidly than public investments.

Development Patterns by Region

1.04 The scope and quality of investments has varied considerably among regions since the mid-1950s. A geographically differentiated pattern of investment accounts for much of the variation in the pace of agricultural expansion at the State level. Growth has been most rapid in the States of Punjab and Haryana and the lowest in the eastern region of the country. For example, the combined output of foodgrains in Bihar, Orissa and West Bengal grew by a total of 3% between the late 1960s and the early 1980s. Growth rates in other regions have been more in line with all-India trends; only the average annual growth rate of about 2% in foodgrains production in the southern tier, comprising Andhra Pradesh, Karnataka, Kerala and Tamil Nadu was below average.

1.05 The high growth rates of between 3.8% and 5.8% annually attained in Punjab and Haryana are attributable, in part, to the large program of public investment, complemented by extensive farm-level investments. Public resources have been applied to major irrigation and power projects, rural roads, and marketing facilities, and also to the implementation of effective land reform, a reorganization of the cooperative movement, and strengthening of agricultural research and extension. Cultivators have followed up with private investments to improve farm production, control the timing of field operations, and increase the application of inputs needed for successful utilization of HYVs. Household savings in these States have substantially increased and have been used, to a considerable extent, to finance continuous improvements in agricultural production capacity.

1.06 Comparable growth has been achieved in those districts of Rajasthan and Uttar Pradesh that are adjacent to the Punjab and Haryana, and in selected districts of Andhra Pradesh, Gujarat, Maharashtra and Tamil Nadu. Elsewhere, agricultural performance has been poor either because of under-utilization of facilities created through public investment or because of the absence, thus far, of concerted public initiatives in the agricultural sector. Growth rates have been disappointing in the southern region, despite extensive reliance on irrigation and above-average use of fertilizer on a per hectare basis. Utilization of water has been unsatisfactory in western India where considerable public resources have been invested in irrigation facilities. However, agricultural growth in this region has been stimulated by the widespread dissemination of improved varieties of coarse grains. In the eastern region, reliance on irrigation and use of fertilizers and HYVs is limited, despite the considerable potential for surface and groundwater irrigation. Farm-level constraints, such as the small average size and fragmentation of holdings, make it difficult for cultivators to invest in tubewells and dugwells. Farmers' reluctance to invest in improvements is linked to poorly funded and badly executed state-level initiatives on land reform and production.

Role of Agricultural Credit

1.07 In addition to direct public investment in irrigation facilities and other productive infrastructure, the Government of India (GOI) has fostered private investment in agriculture. These efforts since the 1960s, have increasingly centered on the expansion of the institutional credit system. Two distinct objectives have underpinned GOI ambitions: First, institutional credit disbursements have been seen as a primary tool in the campaign to eradicate rural poverty. The Government's view is that credit advances can free cultivators from exploitative economic relationships and provide the asset base needed by them to become self-sustaining producers. The most recent manifestation of this view is the Integrated Rural Development Program (IRDP) intended for small and marginal farmers and landless workers (paras 2.13-2.15).

1.08 Second, the role of institutional finance in rural areas is intertwined with the national goal of achieving self-sufficiency in food production. Institutional credit is regarded as a critical means of improving agricultural production and productivity by facilitating adoption of new agricultural techniques and inputs and by encouraging a shift to irrigated cropping. Based on the estimates of the All-India Rural Credit Review Committee, which forecasted the amount of institutional credit needed to reach "required" investment levels, the Sixth Five Year Plan (FY79/80 - FY84/85) set a target of Rs 40 billion of short-term lending and Rs 14 billion of (medium- and long-term) lending for 1984/85. The Seventh Five Year Plan proposes more ambitious goals - Rs 80 billion of short-term lending and Rs 45 billion of term lending for 1989/90.

Historical Development

1.09 GOI's ambitions with respect to rural credit were initially pursued through expansion of the cooperative system which, in the mid-1950s, comprised some 110,000 Primary Agricultural Credit Societies (PACSs), with links to 509 District Central Cooperative Banks (DCCBs) and 16 State Cooperative Banks (SCBs), all lending for short-term purposes; for term-lending, there were seven State Land Mortgage Banks, which advanced credit mainly for redemption of non-institutional debt, and several Land Development Banks (LDBs). The State Land Mortgage Banks later converted into LDBs, while additional States introduced LDBs by 1969. Dissatisfaction with the volume and quality of lending through cooperative institutions in the early 1970s led to measures by GOI to involve Commercial Banks (CBs) in agricultural lending (paras 2.07-2.10). Expanded CB financing to agriculture was induced by GOI by stipulating minimum lending levels for priority sectors, including agriculture, and was supported by licensing measures, which further induced CBs to increase the number of rural branches from 5,000 in 1969 to 40,000 in 1984. The rural credit system was further expanded with the creation, in 1975, of Regional Rural Banks (RRBs) (para 2.11). Institutional credit operations in rural areas are regulated by the Reserve Bank of India (RBI), which ensures that lending terms available through different channels are compatible with the structure of interest rates set out in government directives. Until 1982, the Agricultural Credit Department (ACD) of RBI was the main source of refinance for short-term cooperative credit institutions, while the Agricultural Refinance and Development Corporation (ARDC) served as the primary means of refinancing term lending. In 1982, the National Bank for Agriculture and Rural Development (NABARD) was created, and it assumed the refinancing functions of ARDC and ACD (see Chapter V).

Short-Term Credit from Institutional Sources

1.10 Short-term advances rose rapidly in nominal and in real terms between 1974/75 and 1978/79. Cooperative disbursements (including RRBs) rose 60% to Rs 12.1 billion and CB advances more than doubled to Rs 3.6 billion. During this period, short-term disbursement accounted for an increasing proportion of expenditures on agricultural inputs. However, thereafter, short-term credit flows (in real terms) first declined and then remained roughly at the level that prevailed in 1977/78, with CB advances continuing to grow, reaching Rs 7.0 billion in 1981/82 and 1982/83, while cooperative disbursements declined in real terms. Despite the lack of growth of short-term advances in real terms, expenditure on purchased inputs continued to grow rapidly during the late 1970s and early 1980s, as cultivators were able to find other means, including their savings, to finance their working capital requirements.

Term Credit from Institutional Sources

1.11 Institutionally funded investment in agriculture increased nearly threefold in real terms between 1971/72 and 1980/81, while the proportion of institutional lending in private agricultural investment increased by one-third during this period, reaching 44% in 1980/81. However, recent investments funded through institutional sources may yield lower returns than would have accrued if investments had been funded through private savings alone. IRDP (para 2.13) has garnered a growing proportion of agricultural lending, and recent studies highlight the low returns and high administrative costs associated with IRDP lending. Also, large allocations of institutional finance to minor irrigation investments in non alluvial area (para 4.21) are likely to be characterized by low marginal economic benefits.

1.12 The efficiency of institutional credit for term lending needs to be assessed with regard to how much financing has augmented or, in some situations, displaced private savings in different regions. Large institutional credit disbursements in Punjab and Haryana have been combined with substantial private savings to finance the continuing increases in productive capacity. Allocations to IRDP in these States account for a small proportion of institutional credit advances. By contrast, the growth of agricultural production has remained relatively low in the southern tier of States, despite significant financial disbursements including a large share to IRDP, and substantial public investments. Private savings in this region where average returns to farming investments are low might have been drawn to non-agricultural opportunities, leaving agricultural investment to be financed institutionally. In the eastern region, agricultural investment is low and suffers from an inappropriate mix of investment outlays. Rural financial institutions in Bihar and to a lesser extent, Orissa have concentrated more on farm mechanization schemes for larger farmers than on financing minor irrigation projects. IRDP accounts for more than 20% of term credit disbursed in Bihar and Orissa. The relative share of the institutions of NABARD's term credit disbursements has been as follows:

Share of ARDC/NABARD Disbursements for Term Investments

| | FY74/75 | | FY79/80 | | FY83/84 | | FY84/85 | |
|---|---|---|---|---|---|---|---|---|
| Agency | Rs M | % | Rs M | % | Rs M | % | Rs M | % |
| LDBs | 771 | 72 | 1,640 | 40 | 3,140 | 35 | 3,140 | 30 |
| CBs 1/ | 279 | 26 | 2,300 | 56 | 4,500 | 50 | 5,700 | 54 |
| RRBs | - | | 90 | 2 | 870 | 10 | 1,400 | 13 |
| SCBs | 15 | 2 | 90 | 2 | 410 | 5 | 370 | 3 |
| Total | 1,065 | 100 | 4,120 | 100 | 8,920 | 100 | 10,610 | 100 |

1/ CBs' share of financing in agriculture is likely to be higher, because CBs finance up to 60% of their agricultural investments from their own resources without NABARD refinance.

## II. AGRICULTURAL CREDIT INSTITUTIONS

### A. Short-Term Cooperative Credit Structure

2.01 The short-term cooperative banking structure in each State comprises a three-tiered structure with the SCB at the apex, serving DCCBs at the district level, and PACSs being the primary lending units. In 1984, the 27 SCBs, 337 DCCBs, and 94,000 PACSs had the biggest network for short-term lending. All DCCBs within a State are shareholders of the apex SCB and provide short-term credit to village-level PACSs, based on limits prescribed by RBI. Besides serving as bankers to their member DCCBs, SCBs conduct general banking business, arrange for statutory inspection of DCCBs and provide some training facilities. SCBs and DCCBs compete with CBs and RRBs for deposits and are the major institutional source of short-term credit to farmers.

2.02 At the village level PACSs provide members with short-term credit and marketing services, and since their functioning expanded in 1969, have also provided a number of diversified services, such as stocking and retailing agricultural inputs, and foodgrain purchases. Recently, some PACSs have also collected savings deposits from members and offered consumer loans. In many States, the credit performance of PACSs has been inadequate, due to weak management, inadequate supervision and ineffective administrative control, a limited resource base, and narrowly focussed services. Rooted in the local village power structure, PACSs are vulnerable to local pressures. Since

1973, GOI has encouraged amalgamation of PACSs to improve their operations, management and profitability. Even profitable PACSs are often unable to appraise and supervise a large volume of loans adequately. As a result, the quality of lending is poor, and advances often fail to satisfy farmers' real needs. The level of overdues is higher among PACSs than among DCCBs and SCBs; repayment of PACSs to DCCBs and from DCCBs to SCBs is within reasonable limits; in most States SCB recovery is 90% of demand.

2.03 SCB's short-term borrowings from NABARD usually constitute up to 50% of the funds advanced to DCCBs. SCBs also provide medium-term finance, particularly through IRDP. SCB's medium-term credit as a share of agricultural credit has grown substantially in recent years, although from a very small base; 5% of NABARD term refinance went to SCBs in FY83/84. Although SCBs have been increasing their term lending, more than 95% of medium- and long-term lending in agriculture is shared among CBs, LDBs and RRBs, with NABARD providing refinance to all institutions.

### B. Land Development Banks (LDBs)

2.04 In 1984, 19 States had LDBs; eight LDBs lend through their own branches (1,007), while 11 LDBs refinance 889 affiliated Primary Land Development Banks (PLDBs), which, in turn, lend through branches. LDBs only provide 5-15 year loans for agricultural investments; they do not make seasonal loans, do not accept deposits, nor lend for non-agricultural purposes. LDBs service more than six million accounts. About 30% of LDB share capital is owned by the respective State Government, and the balance by cooperatives and farmers, who are normally required to deposit 5-10% of the loan amount in their share accounts for the duration of the loan. LDBs and PLDBs are managed by Boards of Directors, partly elected and partly State-nominated, but State Governments may and do suspend the boards, sometimes for political reasons. The degree of control exercised by State Governments over LDBs varies widely.

2.05 Total LDB lending has more than doubled in nominal terms from FY79/80 to FY83/84 (Rs 2.4 billion and Rs 5.7 billion respectively), but the LDB annual share of NABARD refinance has dropped from 40% in 1979/80 to 30% in 1984/85. LDBs lend predominantly for minor irrigation investments and farm mechanization. The main sources of LDB funds are: (i) special development debentures, which it sells to NABARD and State Governments, guaranteed by the latter, bearing 6.5% - 8.0% interest, and retired in annual installments over actual maturities (5 - 15 years) of loans to which they relate; and (ii) ordinary debentures, floated on the wider institutional market at a similar rate, guaranteed by the State Government and repayable in full at maturity. The share of NABARD special debentures of LDBs new borrowings decreased from about 70% in FY79/80 to 55% in FY82/83.

2.06 The performance of a number of LDBs since 1970 has been less than satisfactory. Most visible has been the poor recovery performance of some banks, as detailed in para 2.17. Low recoveries reflect a generally low quality of lending. LDB operating costs, with branches often covering very large areas compared to those of other institutions, are generally high.

With interest rates and margins determined on an all-India basis by RBI, and with no flexibility to diversify their sources of funds or engage in more profitable lending, LDBs face strong pressures to reduce their operational costs. As a result, contacts between borrowers and LDB field staff are less frequent than desirable. Some LDBs have up to 75% of their loan applications and appraisals processed by State agricultural extension agents, who are paid a fee for each submitted application. A overwhelming array of operational directives also limit staff responsibility. Although chartered as independent cooperatives, LDBs are sometimes treated as if part of State Government with Government staff normally posted to top management positions and frequently changed. Not all LDBs are so affected however; the Punjab and Haryana LDBs are strong, sound, and vigorous organizations with very low overdues.

## C. Commercial Banks (CBs)

2.07 CBs are comprised of 28 public sector banks, nationalized in 1969, and 38 private sector banks. The public sector group consists of the State Bank of India (SBI) with seven subsidiaries, and 20 other banks. With more than 9,600 branches, SBI accounts for about 50% of the agricultural loans made by CBs. The other public sector CBs have also well developed branch networks in most parts of India, while private CBs operate on a much smaller scale. The amount outstanding in agricultural loans by CBs increased from Rs 2 billion and 270,000 accounts in June 1969 to Rs 53 billion and 12 million accounts by March 1982. Of the total outstanding about 14% consisted of "indirect lending" for crop storage, input stocks, and rural electrification. The remainder (86%) was for direct lending to farmers of which about 55% were medium and long-term loans and the balance crop production loans. The north-eastern States are the smallest recipients of CB loans, accounting for less than 1%.

2.08 Refinance to CBs from ARDC/NABARD increased from Rs 0.3 billion during FY69-74 period to Rs 5.7 billion in FY84/85. The CB share of ARDC/NABARD refinance, which peaked at 56% in FY79/80, amounted to 50% in FY83/84, and 54% in 1984/85. Deposits of all CBs grew tenfold from Rs 46 billion in 1969 to Rs 458 billion in FY82/83.

2.09 All CB loans to agriculture and small industries are insured by the Deposit Insurance and Credit Guarantee Corporation (DICGC), to the extent of 75% of the outstanding overdues. LDBs can join these schemes only if they have less than 25% overdues; very few LDBs qualify. Claims paid by DICGC are growing very rapidly and amounted to Rs 0.6 billion in 1983, of which 18% were for agricultural loans. The rapid growth of the CB agricultural loan portfolio and continuing high levels of overdues (para 2.20) and an explosive growth of small industries claims have raised concerns about DICGC's ability to meet future claims. DICGC is reviewing whether it should lower the percentage of the loan it guarantees and/or increase the fee it receives for its services (currently 0.5% annually of loan amount outstanding for small farmers and 0.75% for bigger farmers).

2.10 The main advantages of CBs over LDBs are: (i) their ability to provide short- and long-term credit; (ii) greater flexibility in lending procedures and collateral requirements, as CBs increasingly provide loans against hypothecation of assets created with the loan, which LDBs cannot; (iii) their much stronger financial position allows some CBs to offer better terms of service and, thus, attract more qualified technical staff; and (iv) a two-way relationship with clients, who normally are depositors as well as borrowers. Their disadvantages are relative newness to rural operations and the urban orientation of many CB staff.

## D. Regional Rural Banks (RRBs)

2.11 RRBs provide all banking services in rural areas and each RRB usually confines operations to one or two districts. An RRB is sponsored by a CB that contributed 15% of the share capital and provides management assistance; GOI and the State Government contributed 50% and 35%, respectively, of its share capital. Within India's multi-agency agricultural credit system, RRBs were specifically established to lend to the weaker sections of the population, those not having access to CBs. First established in 1975, the number of RRBs has grown to 170 with 8,200 branches in 1984, covering 270 of India's 411 districts. In FY83/84, the RRB loan portfolio totalled Rs 4.7 billion, and RRBs received 10% of NABARD's refinance, compared to 2% in FY79/80. RRB deposits stood at Rs 4.2 billion in FY83/84.

## E. Staff Training

2.12 The huge size of the agricultural credit system dictates that financial institutions are responsible for their own staff training. The CBs, particularly the SBI group, have the largest training capacity. They operate 27 staff colleges for their own long-term professional staff training needs and 117 regional centers for lower-level staff courses. In addition, they use RBI's College for Agricultural Bankers for technical subjects. Institutions of a sponsoring CB largely train RRB professional staff. The rapid growth of RRBs has necessitated additional training facilities: the College for Agricultural Bankers provides courses for senior staff, while NABARD's Bankers Institute for Rural Development trains RRB staff only. Training institutes within the cooperative banking system include a management training institute in Poona, 17 cooperative training colleges for intermediate-level training, and 86 cooperative training centers. In addition, LDBs operate 14 junior-level training centers. SBI has the most satisfactory training system; smaller CBs, RRBs and the cooperative banking structure display serious weaknesses, training does not address needs, most courses are academic and contribute little to practical operations. At the same time, the demand for technical training, refresher courses, and practical "hands on" training in rural banking at all levels far exceeds supply. ARDC/NABARD has been involved in training of staff of other financial institutions since 1975. The Bank Group assisted ARDC series of projects (paras 3.01-3.02) has financed training for 10,500 senior and 23,155 junior staff of CBs, LDBs and RRBs and 2,600 other officials. Financing of NABARD's training programs will continue under this project (para 4.16 below). The present system of staff training raises the question who should be responsible for the quality and quantity of training, and who should monitor and control training. ARDC/NABARD's past involvement in training was to some extent *ad-hoc* to satisfy immediate training needs, particularly of RRB staff. As detailed in Annex 4, the agricultural credit review would assess training needs of institutions, and develop a strategy and program to strengthen the capacity, effectiveness and efficiency of staff training. It would also review NABARD's role in providing training to staff of client banks, and determine NABARD's role in monitoring and improving training quality and quantity. To gain insight into the implications of a modified role, NABARD would initiate and monitor an experimental training program for branch managers of a selection of banks. Aimed at improving the effectiveness of loan recovery and the efficiency of the branch, it would combine training with simultaneous efforts to address institutional factors impeding effective branch operations (paras 5.10-5.12). If necessary, the program could be modified once the agricultural credit review findings become available.

## F. Integrated Rural Development Program (IRDP)

2.13 IRDP was set up in FY78/79 as an amalgamation of existing rural poverty-alleviation programs. It has become GOI's principal tool in addressing rural poverty, and together with the National Rural Employment Program, has been accorded very high national priority. The Central and State Governments share in its expenditure; all rural credit institutions participate in its financing. During the Sixth-Plan up to March 1984, about 12.6 million families, including 4.7 million belonging to scheduled castes and tribes, have been assisted, involving a government subsidy of Rs 11.9 billion (US$1.0 billion) and institutional credit amounting to Rs 22.4 billion (US$1.9 billion). Between FY79/80 and FY84/85, the share of NABARD refinance for IRDP investments increased from about 1% to 33% of annual NABARD disbursements for specific schemes. The Seventh Plan emphasizes GOI's continued commitment to poverty alleviation. IRDP focusses on all sectors of the rural economy -- agriculture, small industries, and services, and aims at realizing productive investments, in conjunction with employment creation.

2.14 IRDP's target is to identify every year about 600 families below the poverty line (with an annual income of Rs 3,500 or less from all sources) in each of India's 5,011 blocks (subdivision of a district) and to provide these selected beneficiaries with productive investments, which would allow them to cross the poverty line. At the block level, IRDP is executed by a District Rural Development Agency (DRDA), engaging block and village development officers and extension workers. At the district level, IRDP operations are headed by the Collector who supervises DRDA staff, and coordinated by a district consultative committee, consisting of representatives of the participating banks, NABARD, DRDA, and the Planning Department of the State Government, which examines annual plans drawn up by DRDA for each block to ensure availability of resources for planned investments, and to ensure the technical and financial viability of the proposed investments. It then prepares a banking plan and allocations by bank of the number and types of investments. These plans are consolidated at the State level by a State

Consultative Committee involving all participating institutions. In formulating such plans, GOI gives a priority to encourage agriculture investments within the less developed states. 1/ At the national level IRDP is administered by the Ministry of Rural Development. Selection of beneficiaries is based on household surveys conducted by block development officers who also prepare loan applications. Central and State Governments share the 25 - 50% subsidy that each IRDP beneficiary receives; the remaining investment costs are financed by banks. Small and marginal farmers receive 25 - 33% subsidy with a maximum of Rs 3,000 each. Beneficiaries of scheduled tribes receive 50% subsidy with a maximum of Rs 5,000. During FY83/84, 14% of IRDP funds went to minor irrigation, 27% to dairy development, 27% to other livestock, and 28% to small businesses and other categories. NABARD can refinance up to 90% of an IRDP loan. However, banks, especially CBs, have historically been the major suppliers of credit under IRDP. In FY83/84, banks disbursed Rs 7.7 billion, of which NABARD refinanced Rs 2.1 billion, or 27%. NABARD expects its share to increase in the future.

2.15 Experience to date indicates that IRDP has reached a substantial number of farmers, although the target over the Sixth Plan Period--3,000 families per block or about 15 million families for the country for the five years--was not met. Evaluations concluded that due to IRDP's rapid growth, insufficient attention was paid to supervision and quality control. As a result, an estimated 20% of IRDP investments have been misused and incremental income of IRDP investments has been much less than planned; fewer than 40% of beneficiaries crossed the poverty line. Studies point up the need for more realistic selection of investments and planning at block and district levels, a more equitable selection of beneficiaries and a more thorough appraisal and supervision of implementation of investments. Since 1980, GOI has become increasingly aware of the need to improve the institutional performance of IRDP. However, GOI's heavy political commitment to IRDP's target of nationwide implementation prevents more modest growth of the program. As DRDA and the banks are involved in implementation, with DRDA primarily addressing volume, and banks concerned about lending quality, IRDP is hard pressed to satisfy both. GOI has strengthened coordination at block, district, and state levels by instituting the consultative committees, improving the capabilities of the DRDA, and streamlining planning procedures. Further efforts are required. Overwhelmed by pressure to reach IRDP's lending targets, the banks, as a group, have not been able to maintain lending quality in the IRDP program. NABARD's involvement in IRDP has focussed on refinancing operations. It will need to play a more active role in assisting and guiding the banks in maintaining appropriate standards of lending quality and strengthening IRDP planning and supervision of implementation at the district level. Measures to strengthen NABARD's role are detailed in para 5.06. Further measures to improve IRDP's operations fall outside the scope of this project and will be pursued as part of the Bank Group's country dialogue.

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1/ Specifically, Arunchal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Tripura, Sikkim, Bihar, Orissa and West Bengal.

## G. Credit Recovery and Eligibility Criteria

### Overview

2.16 A high level of overdues (i.e. potential or actual bad debts) among constituent parts of the agricultural credit system is its most visible problem. Reasons for high overdues, include willful default; weather and natural calamities affecting crops; poor functioning of bank branches, particularly inadequate appraisal of investments, insufficient supervision of implementation, follow-up and collection efforts; low interest rates; and in some instances active discouragement of collection efforts by State Governments and local groups for political reasons. Agro-climatic factors complement institutional weaknesses. A state level comparison confirms an inverse relationship between the general level of risk of agricultural operations and the level of loan recoveries. In addition, CBs which have to fulfill the agriculture sector's share of their lending operations do not press established, reliable borrowers for repayment on time, as this would require further lending to new borrowers. However, the prevalence of a high level of overdues is specifically due to defective lending policies, ineffective field supervision, and a lack of concerted effort and will on the part of bank boards of directors and staff to recover due loans. Recently GOI has stressed the need to improve loan recovery performance requiring the banking system to adopt firm measures to correct the present situation of overdues.

### Loan Recovery of Land Development Banks

2.17 Between 1974 and 1984, the average percentage of recoveries of all LDBs ranged from a high of about 62% (1974) of total demand 1/ to a low of 48% (1980) (Annex 5, Table 2). The national average conceals wide variations among States; Haryana, Kerala and Punjab consistently maintained high recovery rates, while Bihar, Gujarat, Maharashtra, Tamil Nadu, and West Bengal had long periods of low recovery. But even within States LDB recovery rates vary significantly. Among LDBs with low recoveries in the five States mentioned above, 165 of their total of 876 branches, or 19% had recoveries of more than 75%, while 396 branches or 39% had recoveries of less than 40% (Annex 5, Table 3). Although LDB branches in some districts have uniform low recoveries, particularly in Maharashtra, West Bengal and to some extent Gujarat, other districts (Tamil Nadu) display a mixture of high and low recoveries among branches within a district.

2.18 Several State Governments provide substantial financial assistance to their LDB (Annex 5, Table 1). During the ARDC IV project,

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1/ Demand being defined as principal and interest due for the current year in addition to overdues of previous years.

(Cr. 1209-IN/Ln. 2095-IN), the Bank Group agreed that four LDBs 1/ with high overdues would be allowed to "block" chronically overdue accounts 2/. During FY81/82 to FY83/84, Rs 609 million were "blocked" of which Rs 370 million were in Maharashtra. Due to "blocked" accounts, States paid Rs 162 million in overdue recoveries to the LDBs in FY81/82, Rs 330 million in FY82/83 and Rs 326 million in FY83/84. Without such financial assistance, reported recoveries for all LDBs for FY83/84 would have been less by 8 percentage points; 51% instead of 59%.

Loan Recovery of Regional Rural Banks

2.19 As of June 1983, more than 57% of all RRB branches had recoveries of less than 55% (Annex 5, Table 4). High overdues were concentrated in Bihar, Maharashtra, Orissa, Uttar Pradesh and West Bengal, while Andhra Pradesh and Karnataka had a more satisfactory performance with only 25% and 35%, respectively, of their RRB branches having recoveries of less than 55%.

Loan Recovery of Commercial Banks

2.20 CB recoveries (on their entire short-term and term agricultural portfolio) have been constant at about 52% of total demand for the past 10 years, during a period of rapid growth (Annex 5, Table 5). SBI has maintained a higher recovery percentage than the other banks. All banks in the northeastern region have low recoveries. Of the six major States in terms of volume of CB lending, recoveries in Punjab, at about 74 - 80%, have been significantly above the all-India average. Recoveries in Maharashtra, on the other hand, have been consistently below 50%. In general, recoveries on term loans (about 46%) are lower compared to those on short-term loans (about 59%).

Past Measures to Improve Loan Recovery

2.21 Since 1975, successive Bank Group-assisted projects--ARDC I-IV (paras 3.01-3.02)--have attempted to improve loan recovery, primarily among LDBs; ARDC IV introduced measures for CBs and RRBs. Key elements of these efforts were various sets of eligibility criteria, initially applied to LDBs and extended to CBs and RRBs in 1983, which imposed restrictions on availability of all funds from NABARD to branches with inadequate recovery. During ARDC III and IV, these eligibility criteria were augmented by specific measures to improve the institutional performance of weak LDBs. Since LDBs receive NABARD refinance for more than 50% of their funds, eligibility criteria directly influence their total amount of lending. These eligibility criteria, details of which have been subject to frequent revision, have

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1/ Bihar, Gujarat, Karnataka, and Maharashtra.

2/ Chronic overdues are entered into a "blocked" account and the State Government pays the LDB any shortfall in collecting the dues, generally over a five-year period.

maintained one common characteristic; a branch/PLDB with recovery of more than 75% has unlimited eligibility, while lower levels of recovery qualify for declining amounts of refinance from NABARD. Between October 1978 and December 1981 eligibility criteria in effect excluded branches/PLDBs from refinance unless recovery exceeded 35% 1/. In 1982, to minimize the drastic impact of cutoff of branches with recovery of less than 35%, the eligibility criteria were modified allowing some refinancing to all branches/PLDBs, even to those with minimal recovery. Recoveries improved initially, but have declined gradually since then. The initial improvement was the result of "blocking" of chronic overdues and their exclusion from annual demands and interest remissions, and of the payments made by State Government to cover the shortfall in recoveries of the "blocked" accounts, which were and continue to be counted as recoveries. The deterioration of recovery has occurred, despite rapidly growing State assistance in some States and a higher incidence of rephasing of accounts affected by natural calamities.

2.22 Under ARDC IV, eligibility criteria for CB and RRB branches closely resembled those applicable to LDBs and provided for unlimited eligibility for NABARD refinancing to branches with 65% recovery on their entire (short- and long-term) portfolio 2/. If the parent CB or RRB had an overall 65% recovery rate, their branches qualified for unlimited refinance, regardless of branch performance, as were branches which were in operation for less than five years and very small branches. Below the 65% recovery level, the amount of NABARD refinancing depended on cash recovery in previous years. Effectively, there was no significant constraint to NABARD refinance. All loans made prior to June 1972 and those for which DICGC had disbursed were not included in the calculation of demand and recovery. The impact of eligibility on CBs and, to some extent, on RRBs differed from LDB because: (i) agricultural operations of CBs constitute only 15% of CB operations; (ii) NABARD refinance is one of several sources of of CB and RRB funds; and (iii) CBs are instructed to lend (including rediscounts) the equivalent of 60% of rural deposits for rural purposes. With data on CB recovery not yet available for FY83/84, the impact of these eligibility criteria is uncertain, but appears to have been limited. By law, all banks are not allowed to make public their write-offs and bad-debt reserves. LDBs generally do not write off loans; they assume that all loans are fully secured by adequate mortgages, although in practice execution of such security is often impossible. Through the "blocking" facility, LDBs have come closest to writing off loans. However, instead of creating reserves, State Governments guarantee repayment, which has counted towards recovery. Eligibility criteria alone will not secure the financial integrity of the financial institutions; adequate reserves to cover

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1/ 45% minus 10% notional reduction on account of the State Governments' contribution to the LDBs' share capital.

2/ 75% minus 10%, being the notional reduction on account of the State Governments' contribution to the LDB share capital, which was equally applied to CBs.

doubtful debts are also required, while bad debts should be removed from their books.

Rehabilitation

2.23 Under ARDC III and IV, eligibility criteria were combined with attempts to rehabilitate weak LDBs. Under ARDC III, execution of a rehabilitation program for each of six LDBs with very low recoveries was the responsibility of the LDB concerned, assisted by ARDC; the program attempted more rigorous action toward long-term defaulters, instituted "blocking" of chronic overdues, rephased 1/ loans, and handling of incomplete investments. State Governments were reluctant to agree formally to the rehabilitation programs, although certain components were executed. More broadly based rehabilitation efforts were instituted and agreed to by State Governments during ARDC IV for the LDBs of Bihar, Gujarat, Karnataka, Madhya Pradesh, Maharashtra, and Tamil Nadu which collectively accounted for 60% of LDB loan collection demand and 80% of all overdues. These rehabilitation programs, supervised by a standing committee in ARDC, were drawn up by individual groups of banking specialists and focussed on: (i) measures to reduce the demand or increase recovery of the LDB portfolio, including "blocking" of loans, rephasing and rescheduling 2/ (ii) removal of constraints on legal action against defaulters; and (iii) revisions in operational and technical directives, including those concerning personnel and training policies, financial management, auditing, record keeping, and loan appraisal and supervisory guidelines. Although the rehabilitative efforts had some impact on lending procedures, staffing policies, and operational matters, they fell far short of expectations. Their effectiveness was diluted by the relatively short time period in which rehabilitation took place and by insufficient control and guidance on the part of NABARD. Accordingly, only a portion of the programs' recommendations has been satisfactorily executed and effective in improving operations.

2.24 In sum, the experience with the LDB rehabilitation programs indicates that limited technical changes by themselves will not cause weak institutions to perform better. The broad issues (institutional, lending policies and procedures, credit delivery system and manpower) affecting LDB operations and, to some extent, those of other banks need be addressed in order to create a banking environment conducive to healthy lending operations and growth. They will be addressed by the agricultural credit review (para 4.04). Meanwhile, measures are necessary to prevent lending quality from declining further and to effectively increase the rate of loan recovery by the entire banking system. Although the effectiveness of eligibility criteria for NABARD disbursements varies by institution depending on its need for NABARD funds, only such criteria are available to influence recovery in the short term. To compel weak institutions into action to strengthen

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1/ Spreading repayment for one year over the remaining installments.

2/ Allowing one or more extra year(s) for repayment.

recovery efforts, the eligibility criteria should allow lending units with low levels of loan recovery a very limited access to NABARD refinance. Such eligibility criteria should also provide incentives for lending units to improve their recovery performance and, at the same time, penalize (through further reduction of refinance facility) those units that do not demonstrate improvement. Also, units should ascertain whether the loans have a realistic repayment schedule and should deal with bad and doubtful debts. Assistance from the parent banking institution is necessary to accomplish these tasks, and such assistance should be guided and supervised closely by NABARD. Efforts to improve recovery and review the loan portfolios of weaker units need be taken quickly. Such decisions should be made in a timely manner because experience shows that sustained deprivation of NABARD funds without specific assistance to improve recovery is ineffective and counterproductive.

2.25 The bank branch is the unit ultimately responsible for loan recovery, and the logical unit to which eligibility criteria should be applied. In the past, an exception was made for PLDBs, small banks with a limited number of branches operating in one district. PLDBs and RRBs, each operating only at the district level, are sufficiently small to have eligibility criteria applied toward their entire portfolio; for other banks, criteria should apply toward the individual branches' recovery performance on term-loan portfolios. New eligibility criteria, combined with safeguards to ensure the financial integrity of branches are detailed in paras 5.09-5.12.

## III. PERFORMANCE OF BANK-GROUP FINANCED AGRICULTURAL CREDIT PROJECTS IN INDIA

### Introduction

3.01 The Bank Group has been involved in agricultural credit in India since 1969. During the first five years it financed 10 State-based agricultural credit projects, covering the country's major farming regions. Funds were exclusively channelled through the Agricultural Refinance Corporation (ARC) to State level LDBs. From 1975 onwards, the Bank Group ceased lending through State-based projects and initiated a nationwide series of projects through ARC's successor, ARDC; each project financed time slices of about two years of ARDC's refinancing program. In addition, ARDC has taken an active part in the formulation and implementation of another 25 completed Bank Group projects that provided financial support for investments in specific agricultural subsectors. The amount committed by the Bank Group for these 39 projects totalled US$2.4 billion.

3.02 The first 10 Credits mainly provided funds for State LDBs, and facilitated close supervision of LDB operations, and individual project conditionality tailored to the State credit system. In shifting to a nationwide approach by providing a general line of credit through ARDC, the Bank Group assumed that ARDC had greater capability to supervise the operations of the participating banks in view of its proximity and local knowledge, and that a line of credit would allow complete coverage of Indian credit, wherever conditions were appropriate, without being subjected to gaps and periodic delays of the State-level system. A further advantage was the increased opportunity to refinance CBs. While this opportunity had not been precluded under the earlier, State-based projects, CBs only moved substantially into long-term agricultural credit from the mid-70s.

Results of State-Based and ARDC Credit Projects

3.03 Project completion reports and audits by the Operations Evaluation Department have been prepared for the 10 State-based credit projects that were financed by the Bank Group and for the ARDC I, II, and III projects, while the completion report for the ARDC IV project is being prepared. These reports indicate that the projects achieved physical targets, brought about increased agricultural production, and improved agricultural incomes. The ARDC series of projects coincided with rapid growth of agricultural lending and ARDC disbursements, with a trend towards diversified (non-irrigation) lending and an increasing focus on small farmers (through IRDP) and less developed areas. In addition to the Bank Group's support to the ARDC series of projects, bilateral donors and the European Community (EC) provided about US$500 million to ARDC since 1976.

3.04 All Project Performance Audit Reports conclude that the State and ARDC Credit Projects achieved their objectives. The Reports consistently question the adequacy of lending margins and financial viability of some of the smaller branches; the limited availability of groundwater, particularly in hard rock areas receives also major coverage in all Reports (para 4.21). Increasing attention is paid to the worsening recovery situation; the ARDC II Report is the first to ask for a review of future Bank Group assistance in view of this issue. The ARDC I and II Reports also point to inadequate ARDC review and supervision procedures and shortages of competent staff. The Reports elaborate on the need for a balance between lending quality and volume, but acknowledge the importance of growth.

3.05 The Bank Group's rapidly growing support to agricultural credit allowed ARDC credit disbursements and agricultural credit to maintain its rapid growth. But insufficient account was taken of the credit system's inability to handle this growth; projects were appraised before the lessons learned from earlier ones were understood and evaluated. As a result, the fundamental factors affecting the credit system's performance received limited attention. Limited supervision was inadequate to provide the data and analysis necessary for investigating the system's problems. Conditionality to maintain lending quality and improve recovery--eligibility criteria--showed a gradually weakening between ARDC I and IV. Increasingly, criteria facilitated adjustments by branches to improve their eligibility; for example, State contributions to LDB capital were counted as recovery, recoveries were measured six months after the due date and "blocking" of accounts was allowed. The policy under ARDC III, of excluding branches with high overdues from NABARD financing was discontinued under ARDC IV. Although the ARDC projects increasingly emphasized rehabilitation of individual, poorly performing LDBs, execution and results were below expectations, in part, because fundamental variables (lending margins, quality control, training) were inadequately addressed. While successful in supplying substantial funding for minor irrigation and diversified investments, the projects were unable to stem mounting overdues, and witnessed a deterioration of several formerly strong LDBs and the increasing difficulties of the credit system to maintain adequate control over lending quality.

## IV. THE PROJECT

### A. Development Strategy

4.01 Institutional agricultural credit in India is playing an important role in sectoral development, most successfully in the northwest where production potential is high and supporting services adequately available. Despite rapidly expanding operations in other selected parts of India, the agricultural credit system has been less successful than in the northwest in matching growth with the selection of high-return investments. Agricultural potential in such areas is less promising, and risk is higher. The fundamentally different nature of agricultural banking in areas of higher risk, more poverty, lower financial liquidity, fewer services, and less potential has been inadequately reflected in the policy framework in which the agricultural credit system operates. Banking practices appropriate to an environment of better-off farmers involved in low-risk, high-return operations are being promoted in much different environments where the policy of low lending margins, high disbursement targets, and mass-lending operations for preselected beneficiaries have different consequences.

4.02 The various components of India's multi-agency agricultural credit system have reacted differently to rapid lending growth induced by Government. The short-term cooperative system has been least effective in coping with demand for quality lending; its relatively slow growth in recent years reflects disbursement limitations imposed because of inadequate recovery. More importantly, ongoing efforts to formulate and implement a concept of a viable and effective cooperative structure for short-term lending have not succeeded. Concerning term credit, the LDB structure has been most constrained by its inability to provide services other than term-credit, and by its inflexibility in obtaining funds, and has been most exposed to the effects of risk in agriculture production. In some cases, LDBs are increasingly dependent upon ad-hoc State financial assistance. CBs have been most successful in dealing with the strain of high growth and a restrictive policy environment. Subsidized by their dominant non-agricultural operations, as well as by various concessions of RBI, and generally assisted by superior management and financial resources, they have expanded very rapidly, while particularly SBI has been introducing innovative lending strategies in selected areas. They have been more flexible in their approach to agricultural lending and more realistic in their assessment of and approach to risks. However, having reduced the impact of risks, through the DICGC, they have become somewhat complacent about the level of incremental benefits being generated by new investments, particularly in mass-lending schemes.

4.03 GOI's commitment to agricultural development and poverty alleviation is likely to spur future growth of the agricultural credit system. The challenge is whether the system's growth can be combined with necessary improvements in lending quality, as reflected in selection of investments, institutional performance, and recovery. Approaches to improving a fundamentally intricate system require broad and firm but careful action, facilitating reasonable adjustments over time. The thrust of a long-term strategy should be three pronged: in facilitating credit operations of all institutions, it should recognize essential prerequisites for healthy operations, taking into account regional differences in the agricultural environment; it should aim at strengthening and rehabilitating the performance of credit institutions; and it should enhance monitoring, supervision, and quality control functions of the apex level.

4.04 To formulate a strategy, and develop a program to execute it, the proposed project would have GOI carry out an Agricultural Credit Review. The Credit Review would include five studies of all major components of the credit system (para 4.11) under the umbrella of a Senior Expert Group (SEG) consisting of senior Indian and foreign specialists. The studies would bring together existing knowledge of the credit system and add detailed analysis of key components. Draft Terms of Reference agreed during negotiations are detailed in Annex 4. The SEG would coordinate the studies, but its main task would be to formulate a specific, timebound program of recommendations to address the problems of the credit system, and ensure that these recommendations are technically sound and take account of India's socio-political environment. In parallel, the project would support and further expand ongoing efforts to strengthen credit delivery at the village level. A pilot scheme, commenced in October 1984 and involving all credit institutions in three districts (para 4.13) under the supervision of NABARD, would be expanded to 20 districts under the project (para 4.14). The experiences and conclusions of the pilot scheme would complement the Credit Review by providing guidance on how credit operations and loan recovery can be improved at various branch levels.

4.05 The final results of the Credit Review would be available in 1988; thus they would not affect credit operations during the proposed project period. To improve lending quality and improve loan recovery, short-term measures would be required in the meantime, which, although not addressing fundamental problems, would assist in keeping ongoing credit delivery on track. Foremost, this short-term program would comprise of revised eligibility criteria (para 5.09), under which badly performing branches would have limited access to the refinancing facility of NABARD. This would be combined with efforts to improve recovery and the lending portfolio and financial position of weak branches (paras 5.10 - 5.12). The intention would be to restrict new lending by institutions with clearly unacceptable levels of recovery and to have NABARD focus its attention on ensuring that the financial status of these institutions remains within acceptable norms. Secondly, NABARD would streamline and improve its ongoing efforts to rehabilitate weak LDBs (para 5.07). The third component would be aimed at enhancing the lending quality of IRDP by strengthening its planning process and by improving NABARD's control over implementation, as detailed in para 5.06. These measures, in conjunction with eligibility criteria, would concentrate IRDP lending on better-performing institutions. The fourth component would strengthen NABARD's institutional performance, enhance the effectiveness of NABARD's monitoring and control functions (paras 5.26 - 5.27); and improve NABARD staff training (para 5.08). These measures would strengthen NABARD's capability to control and monitor credit delivery and recovery, and to improve lending quality.

## B. Project Genesis

4.06 In anticipation of the completion of ARDC IV (June 30, 1984), GOI submitted a request for a NABARD Credit Project to the Bank Group in April 1983. However, in view of the unsatisfactory performance of ARDC IV, the Bank Group was unable to appraise the proposed project at that time. In January 1984, the Bank Group embarked upon a critical review of the ARDC series of projects, which concluded that its involvement in agricultural credit was highly desirable if it would lead to improvement in the credit delivery and control system.

4.07 In June 1984, the Bank outlined the major problems of the agricultural credit sector and made suggestions for corrective measures to GOI, which gave its reaction in a detailed letter, on the basis of which the Bank Group decided that conditions for its support for the proposed project would be that: (i) GOI agree to a fundamental review of agricultural credit to be undertaken in parallel with Bank Group financial support for NABARD; (ii) where appropriate, necessary studies be undertaken by internationally recruited consultants and be monitored, guided, and reviewed by a panel of internationally recognized local and foreign experts; and (iii) any subsequent NABARD Loan/Credit would be linked to satisfactory progress being made on the formulation of a long-term strategy and program to improve India's system of agricultural credit, based on the findings of the above-mentioned review, and to a start on implementation of the strategy. Based on the above understanding, appraisal followed in December 1984.

## C. Brief Description and Objectives

4.08 The project's main objective would be to strengthen the agricultural credit system and improve the quality of credit delivery; specifically, it would initiate a series of institutional reforms in the agricultural credit system, in general, and in NABARD, in particular. In so doing, NABARD's role as apex institution in agricultural credit would be enhanced. Its second objective would be to increase agricultural production, rural income, and employment, while continuing emphasis on assistance to small farmers. GOI regards NABARD lending as a key program in its agricultural development plan and for national policies on poverty alleviation and employment creation.

4.09 The project would, over a three-year period, help finance, in part, NABARD's medium- and long-term refinancing program to participating credit institutions (CBs, LDBs, RRBs and SCBs). The project would also include (i) execution of the Credit Review, (ii) implementation of the pilot scheme in 20 districts to strengthen credit delivery and improve recovery; and (iii) a component to support NABARD's training activities.

4.10 Contrary to practice under the ARDC series of projects, under the proposed project a portion of the loan for NABARD's refinance program (US$340 million) would be disbursed in tranches, the release of which would be triggered by introduction of revised eligibility criteria (para 5.09) and by the progress in execution of the Credit Review (para 4.11). NABARD would refinance minor irrigation, farm mechanization, plantation crops and horticulture, animal husbandry, forestry, fisheries, storage and markets, services industries, and rural electrification. Bank Group finance would be channelled through NABARD, which would refinance loans made by participating banks in accordance with specific terms and conditions (Schedule A). Final beneficiaries would be individuals or groups of farmers, cooperatives, private and public sector companies and corporations, with more than 80% of NABARD's operations expected to refinance lending to individual or small groups of private sector borrowers. Loans under IRDP, minor irrigation, and farm mechanization would predominate NABARD's refinancing program for FY86/87 to FY88/89.

## D. Detailed Features

### Agricultural Credit Review

4.11 The main objective of the Credit Review would be to define a program to strengthen the agricultural credit system, in order to improve lending quality, effectiveness, and credit services to farmers, while enhancing the effectiveness of supervision and control over agricultural credit operations. The Credit Review would be executed under the general direction of RBI. The complexity of the agricultural credit system in India, and the intricate nature and sensitivity of the issues to be addressed necessitate five separate studies. The studies would be executed by local and foreign consulting groups; GOI has indicated it intends to engage foreign leadership for Studies III and V. GOI would engage the SEG, which would consist of seven specialists to be individually recruited to coordinate and guide the five studies and to prepare an integrated final report. GOI has indicated it intends to recruit about three foreign specialists for the SEG. During negotiations assurances were obtained that GOI would engage consultants for the SEG and consultancy firms for the Credit Review in accordance with Bank guidelines, and would execute the Credit Review. Terms of Reference discussed during negotiations, with details outlined in Annex 4, are summarized below:

(i) Study I - Agricultural Credit in General would examine the role and operations of the entire agricultural credit system, and assess how within the framework of poverty alleviation and agricultural development policies that role should evolve and which factors have significant impact on its efficiency, effectiveness, and institutional integrity.

(ii) Study II - <u>The Role and Effectiveness of Lending Institutions</u> would review a sample of LDBs, CBs, RRBs, SCBs, DCCBs and PACSs, and analyze their effectiveness in their present role, their financial structure, operational systems, and branch expansion policies, and recommend if and how the role, structure, and functions of these institutions should be adjusted.

(iii) Study III - <u>The Role and Functions of the Apex Level in Agricultural Credit</u> would clarify and define the roles and functions of NABARD and other apex level institutions involved in rural credit and how such roles should be executed. It would formulate recommendations concerning NABARD's capital structure, legal mandate, its relationship with RBI, the National Cooperative Development Corporation (NCDC), and lending institutions, and its role in improving lending quality and the institutional performance of banks.

(iv) Study IV - <u>Lending Costs and Margins</u> would assess whether lending margins are appropriate in comparison to the costs of lending, taking into account staffing and other operational costs of properly functioning credit operations and the overdues situation. The study would attempt an assessment of the bad-debt situation and the amount of provisions necessary to remedy the situation and the impact on landing margins. The study would make recommendations concerning appropriate lending margins for NABARD and the participating banks and indicate how such margins should be realized.

(v) Study V - <u>Organization and Management Study of NABARD</u> would prepare a set of recommendations and a timetable to strengthen NABARD's operations. The study would assess how NABARD's institutional and functional structure should be adjusted to reflect the recommendations of Studies I to IV, how its operational procedures should be strengthened, its staffing and training policies and practices be adjusted, its monitoring evaluation and inspection systems be improved, and its institutional development efforts be enhanced.

4.12 GOI has established a Secretariat to assist the Credit Review and SEG. Assurances were obtained that GOI would maintain this Secretariat with adequate facilities to assist SEG in carrying out the Credit Review. Members of the SEG would be selected by GOI in consultation with the Bank. SEG would prepare a final report of general conclusions and recommendations for a timebound program to rehabilitate the credit system. Implementation of the Credit Review would be directly linked to disbursement of the various tranches under the Loan, as detailed in Schedule B.

<u>Pilot Scheme for Strengthening Agricultural Credit Delivery System</u>

4.13 The pilot scheme for strengthening agricultural credit delivery system and to improve recovery was initiated in March 1984 and commenced field work in October 1984, in one district each in the States of Gujarat (Sabarkantha), Madhya Pradesh (Hoshangabad) and Maharashtra (Aurangabad).

Agricultural production in each district is mainly rainfed, although a substantial irrigation command system does exist in Hoshangabad and there is significant irrigated production in Sabarkantha and Aurangabad. The main features of the pilot scheme are the initiation of systematic in-field contacts of bank-branch staff with actual and potential borrowers, brought about by provision of some additional staff, special pilot scheme training activities, and supporting resources. The pilot scheme covers all institutional agricultural credit operations in each district. The scheme was designed to overcome the commonly observed problems of limited contact of farmers with bank-branch field staff; overly-ambitious and poorly organized responsibilities of such field staff; their inadequate guidance, supervision, and training; and the lack of focus on satisfying farmers' total credit needs. The objectives of the pilot project are to:

(i) increase the volume and quality of agricultural credit operations;

(ii) strengthen the agricultural credit delivery system at the branch level; and

(iii) ensure a timely and sufficient supply of credit and its proper utilization and repayment, by providing more intense bank branch staff coverage and implementing appropriate flexibility in lending terms and conditions.

The pilot scheme attempts to determine if these objectives can be achieved through disposition of seriously overdue accounts; greater flexibility in lending operations; limiting the workload of branch staff to reasonable levels; a systematic, closely supervised program of staff work; and providing regular, need-based training and linkages with lending policy-makers.

4.14 Although the pilot scheme in the first three districts was late in starting, it is recognized by GOI/NABARD and the Bank that key elements of an effective credit delivery system are now being addressed under the scheme. Preliminary results also indicate a positive impact on lending institutions' operations at the village level. Consequently, the proposed project would finance an expansion of the scheme into 17 new districts, i.e., a total of 20 districts in all. Districts would be selected so as to bring a wide range of districts under the pilot program covering as many states as possible. Priority would also be given to those districts that have serious recovery problems. NABARD would submit to the Bank, by June 1, 1986, a detailed proposal which would, inter alia, identify the districts selected, the number of banks and branches involved, and include a timetable for implementing the Pilot program. Tentative total costs (Annex 1) for the pilot scheme are estimated at about Rs 300 million (US$25 million). An amount of US$25.0 million of the proposed loan has been allocated to finance 100% of incremental staff, and operational costs and 95% of the costs of motor vehicles and motorcycles for the staff of participating banks. Most of the funds under this component would be passed on as grant by GOI to NABARD and to the participating banks.

4.15 NABARD would be responsible for providing guidance to participating banks on field training and for overall monitoring and evaluation of the pilot scheme. NABARD has a pilot scheme cell and has appointed a full-time District Project Officer for each district covered. NABARD would also establish procedures to regularly review the feedback from the pilot scheme. In order to assess the results of the pilot program, assurances were obtained at negotiations that NABARD would, by October 1, 1986, prepare an initial evaluation of the pilot scheme, to be followed by a second review to be completed by October 1, 1988.

## NABARD's Training Program

4.16 Training in agriculture credit and NABARD's role within this has been described in para 2.12. As under previous ARDC series of projects, the Bank will continue to support NABARD's programs for training of its own staff and those of participating LDBs, RRBs, CBs and DCCBs. As part of its ongoing efforts in this regard, NABARD has prepared a program for training activities over the next three years, see Annex 1, Table 6. Up to US$6.5 million of the proposed Bank loan will be available to reimburse NABARD (on grant basis) for eligible expenses incurred for training activities during the project period. These funds would be utilized for payment of participants' per diem and costs, lecturers' fees, teaching material, and equipment as well as other administrative costs of running NABARD's training facilities.

## NABARD's Refinancing Program

4.17 NABARD's tentative refinancing program for the three years 1986/87 to 1988/89 and resources to finance this program are indicated in Annex 3, Table 4 and discussed in sections E and F of this chapter. The following paragraphs describe and discuss some of the issues related to the principal activities and subsectors supported by NABARD's refinancing. NABARD would also submit annual plans detailing the sectoral allocation of its funds to the Bank Group prior to the start of each fiscal year.

## Minor Irrigation

4.18 There is further scope for carefully planned investment in minor irrigation in India. On an all-India basis, the current estimates are:

| | Ultimate Potential (M ha) | Presently Irrigated (M ha) | Investment Potential (M ha) |
|---|---|---|---|
| Groundwater | 40 | 28 | 12 |
| Surfacewater | 15 | 9 | 6 |
| Total | 55 | 37 | 18 |

Further investment particularly in less developed States in eastern India appears desirable. Sixth Plan investments (through 1984) have resulted in an annual increase of about 1.4 million ha per year, totalling some 7 million ha of both groundwater and surface water. The Working Group on Minor Irrigation for the Seventh Plan has called for an increase in area of 9.5 million ha, 8.2 million ha from groundwater and 1.3 million from surface water, or more than half of the remaining 18 million ha. If these targets are achieved by the end of the Seventh Plan, 85% of the ultimate minor irrigation potential would be reached, and 90% of the groundwater potential. As detailed in para 4.20, many areas would reach their potential much earlier, and safeguards need be introduced to limit excessive exploitation. It is expected that during the Seventh Plan investment in groundwater would slow down and more attention would be paid to improvements in the efficiency of water delivery and rehabilitation of poorly functioning systems.

4.19 Groundwater development would continue to be an important component of lending in minor irrigation (85%). Investments by farmers would include dugwells, dug-cum-borewells, shallow tubewells, filter points, deepening of existing dugwells and adding bores to such wells, provision and replacement of pumpsets, standby pumpsets, replacing diesel pumpsets by electric sets, providing electric connections, piping irrigation water from the water source to the field, provision of pump houses, provision of storage tanks, and at a minor level, the provision of sprinkler and drip irrigation equipment. Costs vary widely according to local conditions. Surface water schemes would constitute about 15% of lending in the minor irrigation subsector. Schemes would range from provision of a small pumpset to an individual farmer to lift water from a river, canal, tank or lake to large public schemes involving river intakes, pumping stations, storage tanks and a piped or lined channel irrigation delivery system commanding several hundred hectares.

4.20 Performance of electric pumpsets has improved in recent years, but still leaves much to be desired. Delays of two months to two years in obtaining a power connection after a farmer invested in a well reflect a low level of efficiency. A number of State Electricity Boards claim to supply a connection within three to six months but in practice, procedures in sanctioning connections are slow, although banks obtain electricity board confirmation that a connection would be made before a loan is sanctioned.

4.21 By the end of the Seventh Plan the most serious constraint to minor irrigation development would be the danger of over-exploitation of groundwater. Almost all of India's 5,011 blocks have been evaluated to determine the potential for further groundwater development; "white" areas have no restrictions, "grey" areas require careful development, and "dark" areas have no further potential. The latest position, detailed in the project file, is summarized on page 25:

| Percentage recharge pumped | "Dark" 80% | "Grey" 60-80% | "White" 60% | Total |
|---|---|---|---|---|
| Number of blocks | 377 | 596 | 4,038* | 5,011 |
| Percentage | 7 | 12 | 81 | 100 |

* Contains 82 blocks not assessed so far.

If, as stated earlier, 90% of ultimate development is reached during the Seventh Plan, nearly all blocks would be "dark" or "grey" by the end of the plan period. Punjab already has 60% "dark" and 22% "grey" blocks. Careful monitoring of development by NABARD is, therefore, of utmost importance. Assurances were obtained that NABARD would provide annually, up-to-date assessments of lending potential for minor irrigation from State Groundwater Organizations (SGO), evaluate those assessments, and ensure that the NABARD lending program is compatible and that no lending is made in "dark" blocks and that careful assessment of lending in "grey" blocks. The Bank would be kept informed and would regularly visit SGOs during supervision missions. While putting restrictions on finance to dark areas is effective in slowing development, more fundamental steps should be taken to address the problem of over-exploitation in the long run, because farmers with financial resources cannot be prevented from constructing new wells in areas already over-developed. Further, in some states, such as Karnataka, deep borewells under construction are drying up adjacent dugwells financed under credit programs. Political costs of restricting access to water are substantial. Nevertheless, GOI would continue its dialogue with the States regarding a legal framework for groundwater development to be applied to those States where the problem is most serious and progressively to others as development proceeds. In 1978, GOI formulated a draft groundwater law and sent it to the States for comment. Progress needs to be made in processing this law.

4.22 The failure of wells is a serious problem affecting recovery of investment in minor irrigation. On an all-India basis, the failure rate is between 4% and 5%, but it varies widely. The outstanding need, identified under ARDC IV, is for a "failed well compensation scheme." Karnataka has introduced a satisfactorily working scheme, modified from a NABARD model and funded by the State Government. Maharashtra has approved a similar scheme. NABARD should encourage other States to introduce such a failed well compensation scheme, and determine how such a scheme should be funded.

Dryland Farming

4.23 Much of NABARD's past financing has rightly been involved in irrigated agriculture, but over the course of the Seventh Plan, opportunities for further credit operations in new irrigation would be reduced as full potential is gradually developed. The larger portion of India's cultivable area relies on rainfall; some 42% of foodgrain production come from dryland farming and more than 70% of pulses and oilseeds. NABARD financing of dryland development schemes is limited to areas with annual rainfall in excess of 750 mm, and there is scope for cautiously increasing this investment. Schemes are prepared on a watershed basis, and may consist of improved crop production technology, dryland horticulture, forestry and pasture, and livestock management. Crop loans and capital loans are advanced for bullocks and improved implements, seed/fertilizer drills, land development, and water tanks.

Land Development and Soil Conservation

4.24 The main land development activity carried out with NABARD refinancing is land levelling, undertaken on land which has a slope of less than 3%; the aim is to reduce the slope to between 0.4% and 0.6%. Reflecting limited demand in some areas and questionable economics, NABARD refinance has been limited.

4.25 Soil conservation is undertaken to reduce losses of soil and to conserve moisture, and activities financed may include simple bunding, contour bunding, terracing and improved agricultural practices (strip cropping, cross-slope cultivation and afforestation). Landscaping of black cotton soils receives particular attention. Schemes are prepared on a watershed basis by State Governments through Soil Conservation Departments or Land Development Corporations.

4.26 The proportion of NABARD's refinance program devoted to land development, dryland farming and soil conservation is relatively small, but may be a larger proportion of future activity. Close liaison would be maintained with the proposed Bank Group-assisted project--'A Pilot Project of Watershed Development in Rainfed Areas', which initially provides for a 25,000 ha watershed development scheme, each in Andhra Pradesh, Karnataka, Maharashtra and Madhya Pradesh, and eventually four other watersheds in these States, over a total area of about 250,000 ha.

Livestock

4.27 Livestock development (dairy, poultry, sheep, and goat rearing) absorbed nearly 21% of NABARD's total disbursement for schematic lending during FY83/84. Of the total disbursements under IRDP, 75% was for investments in livestock subsector, but in recent years the percentage has decreased. Almost all States in India now have major programs and schemes for loans to borrowers to purchase milk cattle, which are ultimately funded through NABARD. Such schemes, often for small or landless farmers, typically provide for purchase of two buffaloes. As most borrowers are poor, they receive substantial subsidies toward the cost of buffaloes, the balance being financed through loans. Evaluation studies of such schemes point to several problems: (i) deviation by borrowers from the intended pattern of investment for two buffaloes and purchase of one instead; (ii) insufficient guidance to farmers inexperienced in dairy practices and poor extension services for animal husbandry; (iii) lack of quality animals; (iv) lack of support services, including veterinary services, marketing arrangements and shortage of fodder; (v) inadequate supervision by lending banks; and (vi) borrowers frequently sell their animals quickly, depriving the banks of their loan security. Evaluations of these schemes provide conflicting conclusions. Some studies indicate major shortcomings, particularly if schemes were not well prepared and supervised; other post-investment data indicate that financial rates of return for such investments, even without subsidy, are satisfactory. In any event, the potential for misallocation of resources is greater in livestock than in most other lending. Control over preparation and implementation of these schemes needs to be strengthened by the banks and by NABARD. NABARD intends to strengthen its technical staff dealing with animal husbandry and dairy lending, both in headquarters and in its regional offices and focus scheme supervision on dairy and animal husbandry schemes. Other programs in dairy development which NABARD expects to continue to finance include: establishment of breeding centers for quality and crossbred cattle, semen banks, manufacture of cattle vaccines, fodder development, milk-processing facilities, and slaughterhouses.

4.28 Approximately 50% of NABARD's financing in poultry is for commercial egg production. Schemes include broiler chicken production and hatcheries for production of parent stock and manufacture of poultry vaccines. Many schemes (specially egg and broiler production) are for small farmers under IRDP. NABARD also intends to give increasing attention to investments in cold storage, vending carts and transport facilities to improve marketing of poultry products. Refinance facilities for production of sheep, goats and pigs have become increasing important; there appears to be considerable potential, and a steadily rising demand for such funds.

Plantations and Horticulture

4.29 ARDC/NABARD's financial assistance to commercial plantations and fruit crops have increased considerably since 1975, with an annual average growth rate of about 36%. NABARD refinances tea, coffee, rubber, cardamon, cashewnut, pepper and fruit crops (grapes, apple, mango, coconut, and citrus fruits). Types of investments are planting; rehabilitation, rejuvenation and infilling of existing fields; and support facilities and infrastructure such as farm machinery, processing equipment, construction of living quarters, farm roads, irrigation and drainage, and plant protection equipment. NABARD expects continued growth in demand for institutional credit in this subsector. Recently, development of oil-bearing crops, medicinal plants, ornamentals, flowers, and mushrooms and tree crop plantations (coffee, tea, and rubber) in less developed areas is receiving special attention. NABARD expects to focus its refinancing on increasing productivity through high-density planting, cultivation of HYVs, and adoption of modern technology.

Forestry

4.30 Forestry investments currently account for less than 1% of NABARD's total disbursements, and support relatively large projects by State Forest Corporations for tree plantation for timber and industrial raw material, including such activities as establishment of nurseries, housing for labor, workshops, processing units, and training and technical assistance. NABARD expects continuing demand for funding. Other schemes financed by NABARD involve mostly "social forestry" which includes farm forestry to supply fuel, fodder and small timber along with wind brakes and shelter belts for ecological balance.

Fisheries

4.31 Until 1981, the main portion of fishery-related lending was for purchase of small shrimp trawlers; shrimp and fish in 1983 comprising 25% of the value of all agricultural exports. With shrimp resources heavily exploited in major sections of coastal waters, the demand for trawlers declined, while in recent years NABARD initiated a highly successful policy of cautious expansion in selected areas, (e.g. Orissa) with some growth potential. Since 1981, NABARD refinancing for marine fisheries has declined considerably in absolute and relative terms. Investment in other types of vessels, notably specialized vessels and small motorized craft for close in-shore fishing will continue, although demand is unlikely to grow substantially. NABARD also supports loans to State Corporations, cooperatives, and private companies for on-shore facilities (cold stores, ice plants, boat repair facilities, netmaking plants, and marketing facilities).

4.32 About 75% of NABARD disbursement to the fishing subsector pertains to fresh-water and brackish-water fish culture schemes. Composite carp culture by individuals, groups of fish culturists and companies has gained increasing momentum in recent years. The high demand for fish and increasing State Government support for fish culture are likely to induce rapid growth in this subsector. Some NABARD lending would support and complement large-scale hatchery development under the Inland Fishery Project (Cr. 963-IN). NABARD refinancing would also support development of larger water areas for fish culture and further development of hatcheries outside the project area. Brackish-water shrimp culture, a new technology for India, is increasingly being applied in areas with high potential. The technology needs refinement to adjust to local circumstances, and lending would therefore, be confined to areas where sufficient experience with commercial or pilot operations has been gained.

Storage

4.33 In accordance with GOI plans to increase national storage capacity, NABARD would refinance loans for construction of storage godowns by private investors, State Warehousing Corporations (SWCs), State Marketing Corporations and State Civil Supplies Departments. NABARD expects demand for storage construction to increase substantially over the next five years, with a provisional target of 5 million tons storage capacity comprising, 2.5 million tons for the Food Corporation of India (FCI) and 2.5 million tons for private individuals who would initially lease the facilities to a SWC. The technical aspects of these programs are handled by FCI and the SWC which would supervise design and construction. NABARD would ensure that the proposed investments would be in line with FCI's and the SCW's storage requirements, based on carefully assessed demand for the area and commodities concerned. NABARD would continue its regular coordination with FCI and the SWCs concerning rents paid by them to individual storage owners.

4.34 Within the context of expanding the nationwide rural storage grid of 200,000 small rural storages and 5,500 small marketing storages, plans have been made to increase the availability of storages facilities, currently with a capacity of less than 200 tons at the block level, the bulk of which would be handled by cooperatives. GOI endorsed the introduction of rural storages to be owned by market committees or an SWC. Annual growth in rural storage capacity of about 10% is envisaged for FY85/86-FY88/89, involving both cooperative and rural storages. NABARD would ensure that its refinance for such storage schemes would not overlap with NCDC efforts to finance cooperative storages under the Third NCDC Credit Project (Cr. 1502-IN).

Markets

4.35 Improvement of marketing facilities has been given high priority in GOI development plans to enforce the system of support prices for wheat and rice and several other commodities, facilitate procurement of agricultural commodities by FCI, and to ensure fair prices to the farmers. NABARD would, therefore, continue to refinance loans to State Marketing Boards and Agricultural Market Committees for construction, remodeling, or extension of regulated market yards. NABARD has gained experience in appraising market yard schemes as a result of about 180 markets refinanced to date, of which 94 markets under two IDA projects (Cr. 294-IN and Cr. 378-IN). India has about 5,000 regulated markets, in addition to 22,000 "shandies" or nonregulated markets where the great majority of farmers dispose of their produce. A thrust of the Seventh Plan is to expand further the system of regulated markets. Experience, to date, indicates that in some areas, regulated markets have had a positive impact on prices, but that in others, benefits are more social than economic. NABARD would continue to assess the technical and financial feasibility of market yard investments and ensure that current or estimated future production necessitates an expansion of the capacity of regulated markets.

Farm Mechanization

4.36 ARDC/NABARD refinances tractors and other farm equipment on a selective basis, taking into consideration the need to avoid undesirable effects on employment and income distribution, and also finances small mechanized equipment, such as power tillers and agro-service centers providing maintenance and repair facilities to small- and medium-size farmers. Because the attractiveness of tractors to many beneficiaries is not only based on the agricultural benefits, but on social reasons as well, NABARD recently instituted that future disbursements for mechanization would not exceed 15% of its annual lending program, compared to 23% for FY83/84, and that the refinance percentage for tractor loans to CBs be reduced from 75% to 50%, except in the eastern and northeastern region, where it will be 90%.

Non-Farm Rural Activities

4.37 The preamble to the NABARD Act places considerable emphasis on provision of credit to cottage and village industries, such as handlooms, handicrafts, sericulture, marketing infrastructure, and the "tiny" industry sector 1/. Institutional assistance to the artisan-based rural industrial sector is mostly channelled through cooperatives. NABARD has proposed channelling credit to individuals or groups of artisans within, as well as outside the cooperative fold through DCCBs and CBs. NABARD would carefully review bank appraisals of individual schemes, and allocate sufficient manpower to this activity.

## E. Project Costs

4.38 Total project costs, including a three-year time slice of NABARD's term lending program, are estimated at Rs 64.3 billion or US$5.4 billion as summarized on page 31:

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1/ Total investments in the "tiny" industry subsector are less than Rs 200,000; artisan loans receive NABARD refinance up to Rs 10,000.

| | Local | Foreign | Total | Local | Foreign | Total | Foreign Exchange |
|---|---|---|---|---|---|---|---|
| | Rs M | | | US$ M | | | % |
| I. NABARD's Lending Program | | | | | | | |
| Schematic Lending | | | | | | | |
| Minor Irrigation/Land Development | 16,960.0 | 1,884.5 | 18,844.5 | 1,413.3 | 157.0 | 1,570.4 | 10 |
| Farm Mechanization | 8,008.9 | 1,413.3 | 9,422.2 | 667.4 | 117.8 | 785.2 | 15 |
| IRDP and Other Innovative Schemes /1 | 18,267.3 | 1,166.0 | 19,433.3 | 1,522.3 | 97.2 | 1,619.4 | 6 |
| Others (including Dairy, Livestock, Plantations, Fisheries, Forestry) | 10,629.5 | 559.4 | 11,188.9 | 885.8 | 46.6 | 932.4 | 5 |
| | 53,865.7 | 5,023.2 | 58,888.9 | 4,488.8 | 418.6 | 4,907.4 | |
| Non-schematic Lending /2 | 3,966.6 | 991.7 | 4,958.3 | 330.6 | 82.6 | 413.2 | 20 |
| | 57,832.3 | 6,014.9 | 63,847.2 | 4,819.4 | 501.2 | 5,320.6 | |
| II. Pilot Scheme /3 | 270.0 | 30.0 | 300.0 | 22.5 | 2.5 | 25.0 | 10 |
| III. Agricultural Credit Review /3 | 19.2 | 22.8 | 42.0 | 1.6 | 1.9 | 3.5 | 55 |
| IV. NABARD's Training Programs /3 | 62.4 | 15.6 | 78.0 | 5.2 | 1.3 | 6.5 | 20 |
| Total Project Cost | 58,183.9 | 6,083.3 | 64,267.2 | 4,848.7 | 506.9 | 5,355.6 | |

The largest component of the project is the three-year (FY1986/87 to FY1988/89) refinancing program of NABARD estimated at Rs 63.8 billion (US$5.3 billion). This tentative program is prepared by NABARD in consultation with State Governments and relevant GOI ministeries, in order to coordinate resources channelled through NABARD with the total investments under the Seventh Plan. The regional and subsectoral allocations of the lending program

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/1 Subsectoral allocation of funds within IRDP programs is determined through an annual planning process and scheme approvals. Allocation during FY83/84 was: dairy animals 27%, other animals 27%, minor irrigation 14%, and other investments 28%.

/2 Comprises crop storage, input stocks and rural electrification.

/3 See Annex 1, Tables 1, 5, and 6.

take into account the potential for agricultural development and the recent performance by various states. NABARD revises its refinancing program periodically to take into account changes in resource position, demand for investment funds, changes in priority programs and any other factors influencing overall supply and demand for NABARD's funds. In order to keep the Bank informed of such changes, assurances were obtained that NABARD would submit to the Bank, at the latest by June 30 of each year, beginning June 1986, its detailed lending program for the ensuing fiscal year. Price contingencies of 7.5%, compounded annually, have been applied to cost estimates for the pilot scheme, the Credit Review, and NABARD's Training Programs.

## F. Financing

4.39 Financing of the project would be as follows:

| | NABARD's Refinancing | Pilot Scheme | Training Program | Review | Total | | |
|---|---|---|---|---|---|---|---|
| | ($ M) | ($ M) | ($ M) | ($ M) | ($ M) | (Rs M) | % |
| Borrowers' equity | 532.0 | - | - | - | 532.0 | 6,384.7 | 9.9 |
| Participating banks' contribution | 957.7 | - | - | - | 957.7 | 11,492.5 | 17.9 |
| NABARD's and GOI's own funds | 3,464.2 | - | - | - | 3,464.2 | 41,570.0 | 64.7 |
| Bilateral aid /1 | 26.7 | - | - | - | 26.7 | 320.0 | 0.5 |
| IDA/IBRD | 340.0 | 25.0 | 6.5 | 3.5 | 375.0 | 4,500.0 | 7.0 |
| | 5,320.6 | 25.0 | 6.5 | 3.5 | 5,355.6 | 64,267.2 | (100.0%) |

A major portion of NABARD's refinancing program would be met through NABARD's own funds, augmented by resources received from GOI and RBI (para 5.17). Participating banks and borrowers' contributions would continue to finance about 18% and 10%, respectively, of loans to farmers, leaving a balance of US$366.7 million (7.5%) to be funded through external sources. US$340 million of the proposed Bank loan (of US$375 million), would be available for NABARD's refinancing program. Although this implies only a marginal (8.9%)

/1 Includes Dutch government aid of Fl 17 million and Deutsch Mark 55 million from West Germany bilateral aid. Other cofinancing is not yet confirmed.

contribution towards NABARD's total refinancing program, external resources such as those of the Bank would enable NABARD to increase its total annual refinancing over the project period of three years. An amount of US$25.0 million of the Bank loan is allocated to reimburse NABARD and the participant banks for the costs of the pilot scheme, and US$6.5 million to finance NABARD's training programs. Except for vehicles, all other costs related to the pilot scheme would be reimbursed by GOI to NABARD and to participating banks on grant basis. The balance of US$3.5 million would be used by GOI to pay for the costs of the Credit Review. GOI and NABARD are discussing with the United Kingdom, and the European Community, the possibility of additional support to NABARD's refinancing during the project period.

4.40 The proposed Bank loan of US$375 million would be made to GOI on standard terms. Of this amount, GOI would onlend US$340 million to NABARD in accordance with Schedule A.1, i.e., at not less than 6.75% (less 0.25% for prompt repayment) per annum repayable within nine years, or at not less than 7.25% (less 0.25%) per annum for funds to be repaid within 15 years. GOI would bear the foreign exchange risk. These are the standard terms on which GOI currently lends to NABARD for foreign assisted projects. Execution of a subsidiary agreement satisfactory to the Bank, between GOI and NABARD, as regards onlending of US$340 million for NABARD's refinancing program would be a condition of loan effectiveness.

## G. Procurement

4.41 Procurement under schemes involving relatively small investments by individual farmer's would be based on farmers choice through local dealers and contractors. Typical items would be pumpsets, tubewells, dugwells, dairy cattle, bullock carts, fishing boats, and farm mechanization equipment such as tractors, power tillers, and sprayers. Normal commercial channels provide an adequate choice of locally manufactured equipment and acceptable servicing facilities, and both prices and quality are competitive with those on world markets. Procurement under such schemes as construction of storage warehouses, market yards, and agro-processing facilities would be based on local competitive bidding procedures satisfactory to NABARD and the Bank. International competitive bidding would not be practical given the relatively small size of investments involved and their dispersal throughout the country and over time.

4.42 Vehicles, motorcycles, bicycles and office equipment under the pilot scheme would be purchased in small quantities at different periods by numerous participating banks spread in twenty districts. In many cases banks would make loans to field officers for purchase of motorcycles and bicycles. As adequate maintenance and availability of spares would be of paramount importance, locally made vehicles (and equipment) of types already used by participating banks would be purchased through normal commercial channels. For similar reasons NABARD's requirements for vehicles and equipment staggered over a three-year period for the pilot scheme at 20 regional offices and headquarters as well as for its training programs would also be procured locally according to its existing procedures satisfactory to the Bank.

## H. Disbursements

4.43 US$340 million of the Loan would be disbursed in four tranches for NABARD's refinancing program. Disbursements of these tranches would be conditional upon introduction of new eligibility criteria and satisfactory progress in the execution of the Credit Review, as detailed in Schedule B. The first disbursement of US$100 million would be released after effectiveness when the new eligibility criteria (para 5.09) have been introduced and once contracts have been signed by at least four of the seven SEG members. The second tranche of US$80 million, would be released 12 months after the first tranche, and would be contingent upon the receipt, in draft form, of reports of at least two Credit Review Studies, and recruitment of the remaining three SEG members. The third tranche of US$80 million, would be released 24 months after the first tranche, provided that the draft reports of the remaining 3 studies have been received. of the final tranche of US$80 million, 36 months after the first tranche, would be conditional upon submission to the Bank in final form reports of all five studies along with the SEG recommendations. In addition, prior to the release of each tranche, NABARD would certify that the disbursed funds have been utilized for its refinancing operations under the project.

4.44 NABARD would continue its custom of maintaining its supporting documentation for its refinancing at a central location to be made available to Bank Group staff for review on request during project supervision missions. Each application by the participating bank would be verified by NABARD's regional office, or (in the case of IRDP) by NABARD headquarters, to ensure that it conforms with the agreed lending terms and conditions (Schedule A) and with specific scheme-sanctioning conditions (para 5.19). NABARD would check investments during its monitoring studies (para 5.26). Both NABARD and the participating banks are subject to regular audits.

4.45 Disbursement for Credit Review (US$3.5 million), Pilot Scheme (US$25.0 million) and NABARD's Training Programs (US$6.5 million) would be made against actual expenditures. Bank disbursement would represent 95-100% of total eligible expenditures relating to those components. Bank disbursements for these components would be claimed against Statements of Expenditures (SOEs) which would be separately audited annually.

4.46 Disbursement forecasts are shown in Annex 1, Table 7. Actual disbursements in previous four ADRC projects were in accordance with, or slightly ahead, of appraisal projections. Furthermore, major portion of the proposed loan would be disbursed in tranches as stated above. For these reasons the Bank-wide disbursement profile for agriculture credit projects, (which shows only 41% disbursement in a three year period and full disbursement after 6.5 years) has not been used for this project.

## V. PROJECT IMPLEMENTATION

### A. The National Bank for Agriculture and Rural Development (NABARD)

5.01 Functions. NABARD's main objective is to provide credit for agricultural investments, by making funds available to approved institutions and to refinance schemes which are economically and technically sound. Its volume of refinance for term loans grew from an annual Rs 1.1 billion in FY74/75 to Rs 8.8 billion in FY83/84, while NABARD's short-term refinance between FY82/83 and FY83/84 grew 11% to Rs 1.2 billion.

5.02 The rapid growth of refinance, particularly for term credit largely in response to pressures to achieve GOI mandated lending targets, has severely strained the capacity of NABARD to maintain the quality of its refinancing activities. This reflects NABARD's limited ability to supervise and control lending operations and the inability of the participating banks to appraise and supervise schemes adequately. Throughout this period of rapid growth, NABARD has maintained its practice of reviewing each investment scheme. With the capacity to review at headquarters being limited, NABARD increasingly delegated such appraisal to its regional offices; however, it inadequately strengthened regional offices in terms of expertise and staff. Scheme appraisals increasingly became desk reviews, comparing new schemes with existing models. Meanwhile, with NABARD reviewing schemes, participating banks had limited incentives to improve their own scheme appraisal (para 5.19). NABARD has not yet developed a policy to shift the basic responsibility for scheme appraisals to participating banks where such responsibility belongs, and how it should progressively limit its scrutinizing of individual schemes. Major constituent parts of the institutional credit system still lack the technical skills, internal procedures, incentive structure, and control mechanisms to ensure adequate lending quality. NABARD's ability to enforce improvements of lending quality, other than by examining each scheme, has been severely hampered by uncertainty about its role and mandate. The agricultural credit structure, with cooperative institutions in the fold of the State Governments and CBs reporting to RBI, requires NABARD to balance carefully its role in relation to the powers of the States and RBI. Its legal mandate gives it little power to enforce changes in operations of the banks, it only has power to withhold refinance from unviable schemes. However, it has been reluctant to use this tool to enforce scheme covenants and recommendations based on voluntary inspections of banks. Instead, it has, with limited success, attempted to enforce compliance through persuasion. NABARD's inability to ensure that participating banks have the staff and competence to handle complicated investment schemes may be a reflection of its unclear role and policy concerning participating banks' staff training. As detailed in para 2.12, the staff training capacity of participating banks, with the exception of some of the larger CBs for their staff is inadequate in terms of volume or quality. At the same time, NABARD's training division (para 5.08) is inadequate, both for NABARD's own training efforts and for guiding training efforts of other banks. Also, inadequate field supervision of scheme implementation by banks has been a major factor in the deterioration of their lending quality. Unfortunately, NABARD's ability to supervise implementation of some 24,000 ongoing schemes has decreased, compared to the 1970s (ARDC), as a result of staff constraints.

5.03 Organization and Management. NABARD is administered by a Board of 14 directors appointed by GOI in consultation with RBI. The Board has representatives from RBI (3), GOI (3), State Governments (3), cooperative banks (2), CBs (1), and independent experts (2). RBI nominates one of its Deputy Governors as Chairman. The Managing Director, who is the chief executive officer, is also appointed by RBI and is a member of the Board. He is assisted by three Chief General Managers, a staff of 2,700, of which 1,600 are professionals; about half of the staff are located at the Head Office in Bombay. The other staff is distributed among an office in Delhi to liaise with GOI and 20 regional NABARD offices. Head office organization is shown on chart WB 27140. Lending operations are conducted through three divisions supported by financial, administrative, planning, evaluation and monitoring, technical, and inspection sections. A typical regional office is organized into scheme appraisal, monitoring, inspection and evaluation sections supported by an administrative section. NABARD's structure, inherited from ARC/ARDC focusses on refinancing, but has been insufficiently adjusted to reflect NABARD's expansion and the need to monitor, control and improve lending quality and strengthen the institutional development of its client banks. Functional responsibilities are arbitrarily, and sometimes unclearly, allocated to departments; coordination among departments is often inadequate and management responsibilities allocated primarily on the basis of seniority.

5.04 Staffing. NABARD has gone through a particularly turbulent period concerning staffing following its establishment in 1982. Of ARDC's total staff of 3,500 in 1982, 65% opted to join RBI, while about 35% joined NABARD from RBI. Including other staff movements NABARD has lost a total of 2,809 of its staff (80%) since 1982, while only 1,981 joined. Staff movements predominantly affected junior professionals and clerical staff. Since 1982, the number of professionals grew from 1,526 to 1,604. Fourteen of NABARD's 16 senior managers are scheduled to retire between 1985 and 1988. After a long period of managerial succession based on seniority, it is currently initiating plans for succession of its senior managers according to professional criteria. NABARD has made reasonable provision for technical staff at headquarters, although delays in filling technical vacancies occur. The demand for technical staff has been stronger at the regional offices and staffing has generally been inadequate.

5.05 NABARD's rapid growth and expanding responsibilities have accentuated the need to focus on improving lending quality and recovery rates and guiding client banks to improve institutional performance. Between 1982 and 1984, as recommended by a task force, NABARD made efforts to improve coordination among various departments, but much more remains to be done. Under the project, NABARD's institutional problems would be addressed in two ways: First, NABARD would institute a number of specific improvements of limited magnitude, as detailed in paras 5.06 - 5.08 and 5.26, that would have immediate impact on its performance. Secondly, as part of the Credit Review, NABARD's role and functions would be studied (Study III) to be followed up by an organization and management study Study V (para 4.11). The recommendations of these two Studies would be implemented during future projects.

5.06 Guidance for IRDP. As detailed in Chapter II, the institutional performance of IRDP needs to be strengthened to improve the quality of the investments financed under the program. NABARD can contribute to this process by refusing to refinance IRDP activities of inadequate quality and by improving coordination within the banking sector, maintaining closer control over planning and implementation at the district and block levels, and increasing monitoring and evaluation of IRDP scheme loans. Accordingly, assurances were obtained that NABARD would: (i) set up by June 30, 1986, an IRDP task force comprising representatives of a selected number of banks, and chaired by NABARD to review operational procedures, particularly at the district level; (ii) develop by June 30, 1986, an IRDP planning and review group in each regional NABARD office consisting of staff to be made directly responsible for IRDP operations in each district of the State; (iii) set up by June 30, 1986, a special cell at NABARD headquarters to coordinate and monitor the work of these regional office groups, organize data collection, and develop and enforce NABARD policy; and (iv) annually institute about 15 monitoring studies especially focussed on IRDP operations in selected districts (para 5.27).

5.07 Rehabilitation of LDBs. Under the ARDC IV project, rehabilitation programs for ten LDBs were initiated and partly executed, monitored by a standing committee in ARDC/NABARD. As detailed in Chapter II, these programs were somewhat narrow in their approach to improve LDB performance and lacked performance-oriented targets. NABARD realized the need for continuing guidance and control over institutional rehabilitation, and in 1982, created an Institutional Development Department. So far the results of the rehabilitation efforts have had little impact on the performance of the LDBs. The Credit Review would examine LDB operations, but before its recommendations become available, ongoing LDB rehabilitation efforts would be made more effective and be completed. To this end, assurances were obtained that an assessment would be made by NABARD of which outstanding recommendations of the LDB rehabilitation studies would be pursued during the next three years. Moreover, NABARD, by August 31, 1986, would prepare a program for each of the 10 LDBs, focussing on specific, timebound, rehabilitative actions; each program would be monitored by institutional development specialists specifically put in charge (see also para 5.12).

5.08 Training. NABARD's training division's small staff of nine senior professionals and 12 assistants is inadequate to perform its functions satisfactorily. Almost 2,000 of NABARD's staff have joined since 1982, but in 1983 and 1984, only 453 staff attended some form of training activity. For its own staff, NABARD would require a training and development program that identifies training needs, specifies objectives, and outlines training methods and organize training accordingly. NABARD's long-term training requirements would be reviewed under the Review Study V (para 4.11). However, action is required to satisfy NABARD's immediate training needs for the next three years. NABARD has prepared a Training Program for the three years (1986/87 - 1988/89) which also includes an experimental training program for branch managers of about 10 LDBs, 20 RRBs and 5 CBs. The program to train about 25% of the managers of rural branches over an 18 month period would be designed by training specialists of the banks concerned, and would start with special courses for trainers of the banks' training institutes. The program would demonstrate branch managers how to: (i) improve the effectiveness of recovery efforts; (ii) enhance lending quality; and (iii) streamline branch administration. After having attended a training course, branch managers would regularly return for short refresher courses, and provide feedback on factors which hamper efficiency improvements of branches. The banks concerned would commit themselves to use the feedback of the training program to improve their branch operations. NABARD intends to appoint four training specialists to coordinate and monitor design of the program and its implementation; assisted by institutional development department staff, they would guide the banks to effectively apply the feedback of the training program. Assurances were obtained that NABARD would implement the above training programs for branch managers and staff of the participating banks. NABARD would consult with the Bank on periodic revisions of the training program during implementation.

5.09 Eligibility Criteria. Beginning July 1, 1986, all PLDBs, branches of LDBs, CBs and RRBs, would be categorized, according to their recovery performance, with a stepped-up increase effective January 1, 1988, as shown in the table below. Branches in each category (except those in "Special Assistance States") 1/ would be entitled to NABARD's refinance facility to the extent as indicated.

| Category | Up to 12/31/87 | Effective 1/1/88 |
|---|---|---|
| | (Annual Recovery Rate %) | |
| I | 75 or more | 75 or more |
| II | 60-74 | 65-74 |
| III | 36-59 | 41-64 |
| IV | 0-35 | 0-40 |

Refinance Facility for Branches in Category

I : Unlimited Access

II : The highest amount lent in any of the last 5 years or average recovered in previous 3 years, whichever is greater.

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1/ Existing (ARDC IV) eligibility criteria would continue to apply to branches in States/Union territories of Arunchal Pradesh, Assam, Maniupur Meghalaya, Muzoram, Nagaland, Sikkim and Tripura. Refinance to these states is expected to be less than 2% of NABARD's refinancing program.

III : The amount recovered in the previous fiscal year or the average amount recovered in past 3 years, whichever is greater;

IV : During the first year in which a branch falls in this category, refinancing would be limited to 75% of the amount calculated as in the case of category III above. If the branch remains in this category and fails to demonstrate an improvement in its recovery of at least 7 percentage points, refinancing would be further reduced to 50% in the second and 25% in the third year of eligible refinancing as determined for category III.

Annual calculations for recovery percentages would be based on cash recoveries only, and any financial contribution of the Central or State Governments, including subsidies, would not enter recovery calculations. Other exceptions would also be excluded. For instance, the demand and recovery of LDB "blocked" accounts, agreed by IDA and NABARD prior to June 30, 1984, for LDBs under rehabilitation, would be excluded from eligibility analyses. State assistance by subscription of equity could continue as part of measures to strengthen the financial position of an LDB, but the notional increase of recoveries by that amount would be disallowed. Exemptions to exclude lending for IRDP or other special programs in determining the level of recovery would not be granted. The criteria would only apply to the term lending and not to short term lending of CBs and RRBs. Payments by DICGC and the loans to which they refer would be excluded from recovery and demand calculations.

5.10 Application of the more stricter criteria is expected to result in several branches falling in the lowest Category IV with restricted refinance eligibility. Available data indicate, for example, that between 20-30% of LDB branches in Tamil Nadu and West Bengal may fall in these categories and in states of Bihar, Gujarat and Maharashtra, the proportion of branches affected may be even higher. NABARD has a critical role to play in assisting these branches to undertake a proper analysis of their portfolio, to assess the underlying causes of poor recovery, and to determine the impact of such poor performance on the banks' financial status. NABARD also has an important role in providing assistance in implementing corrective measures to safeguard the financial soundness of such branches and possibly for improvement in their lending operations.

5.11 As a first step in these efforts, NABARD has issued a series of guidelines to participating banks to conduct case-by-case analysis of their outstanding (and overdue) loans. As a result of these guidelines several banks have identified some of the reasons for overdues (i.e., insufficient grace period allowed, repayment terms not consistent with investment return and relief measures where these were justified). Corrective measures mainly rescheduling of loans are now being taken in accordance with the guidelines. Assurances were obtained during negotiations that these guidelines would continue to be implemented during the project.

5.12 NABARD, however, recognizes that such efforts to weak branches have to be intensified and carried several steps further. Given the large number of branches involved and NABARD's limited capacity, it would not be able to handle all the branches falling in Category IV at the same time. In the initial stage, therefore, NABARD intends to focus its attention on the LDBs and PLDBs. NABARD, in this regard, would further analyse the portfolios of weaker LDBs/PLDBs, make appropriate recommendations for write-offs, creation of provisions for bad debts and encourage the banks and state governments concerned to take such measures as necessary to safeguard the financial status of the weak banks. In cases where NABARD concludes that a branch cannot operate on a financially viable basis, it would make appropriate recommendations for its merger. To this end, assurances were obtained during negotiations that NABARD would strengthen its regional offices and Institutional Development Department at headquarters, with experienced institutional development specialists. NABARD has adopted guidelines for providing temporary staff assistance to weaker branches to improve recovery and aid the rehabilitation process, including mergers as appropriate. Assurances were also obtained that these guidelines would be implemented during the project period and that it would take such prompt actions as required to enforce its recommendations, including suspension of its refinancing operations with regard to any participating bank (except CBs) which after one year has not satisfactorily complied with NABARD's major recommendations on matters, inter alia, lending operations, financial position and management structure.

5.13 NABARD's Resource Position. Apart from loan repayment, the main sources of funds available to NABARD are retained profits, loans from GOI and RBI, and capital from special funds.

(i) Share Capital, Reserves and Retained Profits. NABARD was established with share capital of Rs 1.0 billion, held equally by GOI and RBI. Since its establishment in 1982 until June 1985, NABARD has earned a net income of Rs 4.2 billion which has been retained within NABARD for lending operations. The retentions include allocations of Rs 3.2 billion to special funds as explained below.

(ii) Long-Term Operation and Stabilization Funds. These two funds amounting to Rs 13.9 billion, and corresponding assets (mostly in loans outstanding) were transferred from RBI to NABARD on its establishment in 1982. They represent resources out of which RBI previously financed medium- and long-term loans (the Long-Term Operations Fund) and those that were utilized to convert short-term loans to the cooperative banks and LDBs into medium- and long-term loans whenever such conversion/debt restructure appeared necessary and appropriate (Stabilization Fund). Between FY1982/83 and FY84/85, the two funds have been further augmented by contributions from RBI (Rs 9.1 billion) and transfer of part of NABARD's profits (Rs 3.2 billion). In comparison to ARDC, these funds constitute a very significant addition to resources available for on-lending and now constitute about 45% of total NABARD resources (Annex 3, Table 1).

(iii) Loans from GOI. Loans from GOI of Rs 16.2 billion as of June 1985, represent the outstanding amounts in respect of Bank Group and other externally assisted project funds being channelled through NABARD. Of the total, approximately Rs 6.5 billion represents funds received under ARDC I - IV, Rs 2.9 billion under 50 completed and ongoing Bank Group projects, and Rs 4.4 billion from the United Kingdom, Canada, West Germany, Switzerland, the United States, and the European Community.

(iv) Loans from RBI. With the transfer of Long-Term Operation Fund (see above), the only borrowings from RBI is now in respect of NABARD's short-term operations. Currently, NABARD can borrow up to a maximum of Rs 13.0 billion against this short-term facility, on a revolving (annually renewable) basis.

5.14 Uses of Funds. Sectoral distribution of ARDC/NABARD's disbursements 1976-85 are shown in Annex 3, Table 3. On a cumulative basis, about 46% of total disbursements has been for minor irrigation, followed by 19% for farm mechanization. Disbursements against IRDP which only commenced in 1979/80 increased most rapidly and by June 1985 accounted for about 16% of NABARD's cumulative disbursements.

5.15 Operating Results and Financial Position. NABARD's strong financial status and satisfactory operating results are reflected in Summary Balance Sheets and Income Statements in Annex 3, Tables 1 and 2. The overall financial position has been strengthened considerably through the Long-Term Operation and Stabilization Funds mentioned above. Although under the NABARD Act RBI may demand repayment of these funds, it is highly unlikely to do so. These de-facto quasi-equity funds combined with its own capital and reserves, result in a base of Rs 29.1 billion, compared to NABARD's total outside borrowings and liabilities of Rs 29.3 billion (debt/equity ratio of 1:1) as of June 1985. ARDC/NABARD has never had serious overdues or bad debts, and current reserves (Rs 748 million) are adequate. Although there has been some rescheduling of loans, the amounts are well within acceptable limits: Rs 232 million (0.67% rescheduled of loans outstanding) in 1983, and Rs 74 million, (0.2% rescheduled of loans outstanding) in 1984.

5.16 NABARD earned an average spread of 1.6% on its borrowed resources in 1984/85. However, because of the availability of substantial Long-Term Operation and Stabilization Funds (at no cost), the average spread on its total resources amounted to 4.7%. Mainly as a result of these funds, NABARD's net income (Rs 0.9 billion, 1.4 billion and Rs 1.8 billion in FY82/83, FY83/84, and FY84/85, respectively) is significantly higher than profits previously earned by ARDC. Net income in FY84/85 represented a return of 34% on average equity funds. If quasi-equity funds are included the return drops to 7%, which is probably not sufficient to maintain these GOI resources in real terms.

5.17 Projected Resource Position. To meet the currently planned levels of refinancing by NABARD -- including refinancing of IRDP -- for 1985/86 - 1987/88 and to meet its debt repayment obligations, NABARD would require a total of about Rs 49.8 billion (Annex 3, Table 4). Of this amount, about Rs 27.1 billion is expected to be met through NABARD's internal cash (loan repayments and retained profits), and Rs 5.3 billion through the issue of bonds and sales of presently held securities. External sources of funds identified to date (including US$340 million under the project, Deutsch Marks 55 million from West Germany and Fl 17 million from Dutch Government) amount to about Rs 4.7 billion, leaving a balance of about Rs 12.7 billion to be met by a fresh injection of funds from GOI/RBI. Of this amount RBI would provide about Rs. 12.0 billion by way of annual allocation to the Long-Term Operations Fund. GOI/NABARD expect to mobilize further additional external funds during the project period although these are not yet clearly identified. Further resources would be provided by GOI/RBI to make up any shortfall in NABARD's financing during the three years.

## B. NABARD's Lending Procedures

5.18 Participation in NABARD-Supported Schemes. Under ongoing procedures, schemes are prepared on the basis of State and district-level banking programs and coordinated by NABARD's regional offices. Banks are sometimes invited to participate in schemes already prepared by government agencies (IRDP) or to prepare their own.

5.19 Appraisal. Schemes are appraised by the participating bank, prior to being submitted to NABARD for technical and financial reappraisal, usually by its regional office. Appraisal quality differs substantially among banks. Lack of staff and technical expertise are common, particularly at smaller branches. Some LDBs, RRBs and smaller CBs do not have the core of agricultural credit specialists the larger CBs have developed. As a result, unhealthy appraisal practices are increasingly common. Some LDBs use extension staff for appraisal of loan applications on their behalf, and IRDP loan applications prepared by DRDA staff are often accepted without appraisal by banks. But even when banks do appraise an investment or scheme, increasingly they indiscriminately apply appraisal guidelines issued by NABARD. With NABARD appraisal guidelines often being outdated, particularly in cases of lagging implementation, investment cost estimates and lending terms and conditions become increasingly unrealistic. NABARD scheme appraisals suffer from the low quality of proposals made by some banks and from limitations in terms of staff and expertise at its regional offices. The solution, i.e., a thorough appraisal of a representative sample of schemes, is not yet feasible because the quality of proposals prepared by the banks varies so widely. During implementation, monitoring of the schemes and covenants receives inadequate attention, and NABARD is generally reluctant to stop disbursements on ongoing schemes despite non-compliance with covenants. NABARD has recognized this weakness and intends to institute procedures to monitor more closely conditions specified in its sanctioning letter, stop disbursements in cases where this is judged to be the final alternative to enforce compliance.

## C. Lending Terms and Conditions

5.20 Current lending terms and conditions, fixed by GOI and NABARD, are set out in Schedule A and summarized below. During negotiation assurances were obtained that NABARD would continue to apply them to all of its refinancing, irrespective of the source of NABARD's funds.

| | NABARD to Participating Banks | Participating Banks to Ultimate Borrowers |
|---|---|---|
| Loans for Minor Irrigation and Land Development: | | |
| All borrowers | 6.5% | 10.0% |
| Loans for Diversified Purposes: | | |
| (a) Small farmers, IRDP | 6.5% | 10.0% |
| (b) Others | 8.0% | 12.5% |

Repayment periods allowed to ultimate borrowers are based on a cash flow analysis and on borrowers' repayment capacity, but generally do not exceed nine years for pumpsets and 15 years for other minor irrigation loans, land development, and other diversified lending. Repayment by banks to NABARD extends up to two years beyond the amortization periods specified in loans to ultimate borrowers refinanced by NABARD. Appropriate grace periods can be allowed by banks and NABARD within the maximum repayment periods specified. The above structure of interest rates allows NABARD a small margin on that portion of Bank Group funds on-lent by GOI for 15 years.

5.21 The average annual inflation rate between FY78/79 and FY83/84, as measured by the wholesale price index, has been 8.5%; from a high of 18.2% in 1980/81 the rate dropped to 2.3% in 1982/83 and increased again to 9.3% in 1983/84. The average annual inflation rate for FY84/85 - FY89/90 is not expected to exceed 7%. With existing interest rates to the ultimate borrowers being between 10 - 12.5% (para 5.20), interest rates are positive. Interest rates to farmers reflect GOI's aim of supporting agriculture through interest rates which would stimulate investments in the sector.

5.22 Interest rate margins of banks involved in agricultural credit were reviewed during ARDC III by the Committee on Interest Rate Spreads in the Agricultural Lending Sector which concluded that a 3.5% overall spread would be adequate for an LDB with reasonable turnover of funds and with a reasonable level of bad debts, and recommended that uniform rates be maintained for LDBs, CBs and RRBs. Subsequent reviews of the sector revealed that sound operations might require higher staffing levels, particularly if operations cover a wide geographical area. In addition, there is insufficient knowledge regarding bad debts in agricultural loans and the margins required to cover them. Given the issue's complexity and in view of close ties between agricultural interest rates and the general structure of interest rates in India, adequacy of the spread earned by the banks and NABARD would be examined in Credit Review Study IV. Pending completion of the study, no changes in the current structure are proposed.

## D. Lending to Small Farmers

5.23 During ARDC III and IV, 60% and 55%, respectively, of the IBRD/IDA Loan/Credit went to small farmers, as defined by ARDC--those cultivating land that produces a maximum net return to the farm family (before any proposed improvements) of Rs 2,000 in 1972 prices. About 90% of all Indian farmers are within the small-farmer category. The category's income limit has been updated and converted into acreage norms for irrigated and non-irrigated areas for different agroclimatic zones in each State. The 1983/84 all-India norm of about Rs 4,700 based on an average family size of 4.45, is equivalent to about US$89 per capita, which is below Bank estimates of the absolute poverty level in rural India. To stimulate borrowing by small farmers, NABARD provides down payment and maturity concessions to them (Schedule A), while Central and State Governments have set up elaborate subsidy arrangements to support small-farmer investments. In the past, some of these subsidies have been used by the banks as "repayment" of loans. NABARD would continue to support GOI and State programs to subsidize capital investments by poor farmers (as under IRDP). However, as part of the new eligibility criteria, GOI/NABARD have agreed that subsidies would not enter demand and recovery calculations to establish eligibility for refinancing, and subsidies would not be used for repayment of loans.

## E. Accounts and Audit

5.24 Accounting and audit procedures would be as in the earlier Bank Group-financed agricultural credit projects in India. Assurances were obtained that NABARD would continue to be audited by an independent firm of public accountants acceptable to the Bank, and forward its audited accounts to the Bank within four months after the end of the fiscal year. Although NABARD's latest audit has been qualified in respect of unreconciled subsidiary accounts, audits are up-to-date and generally satisfactory. GOI would maintain separate records and accounts for expenditures for the Credit Review. It would provide the Bank copies of such accounts within six months after the finalization of each fiscal year of the project and have such accounts audited by an independent auditor acceptable to the Bank Group, and promptly upon finalization of such audit, furnish the Bank Group with a copy. All withdrawals made under the loan on the basis of SOEs would also be audited annually.

5.25 CBs are also audited by firms of qualified accountants and come under the overall scrutiny of RBI. LDB accounts are audited by the Audit Section of the State Cooperative Department. In addition, NABARD carries out periodic voluntary inspections of LDBs and cooperative banks which include a review of their operations, financial status, and where necessary, management structure. While these inspections are thorough, and NABARD makes sound recommendations as a result, it has been reluctant to ensure compliance by cooperative banks. RRBs are also inspected by NABARD, and while it has authority to ensure compliance with recommendations, it has been hesitant to enforce compliance concerning minor violations. Since implementation of inspection recommendations is crucial for improving bank performance, assurances were obtained that NABARD would discontinue disbursements to banks which, after one calendar year, have not satisfactorily implemented NABARD's major recommendations.

## F. Monitoring and Evaluation

5.26 NABARD has developed considerable expertise in ex-post evaluation of schemes financed. However, mainly because of shortage of adequately qualified and experienced staff, the targetted number of evaluation studies agreed under ARDC IV has not yet been achieved: of the total of 50 studies agreed to be completed under ARDC IV (20 by NABARD, 20 by CBs under NABARD supervision, and 10 by outside research institutes), only 18 have been submitted to the Bank. The remaining are, however, at an advanced stage of preparation and NABARD expects to complete the targetted number by March 1986. Evaluation studies are supplemented by "district-oriented-monitoring" (DOM) under which a sample of beneficiaries and participating banks are visited in order to monitor the results of selected schemes within the district. Although NABARD attempts to cover each district at least once every two years, actual results (and particularly reporting of these monitoring activities) have fallen short of targets. In general, the quality of reporting is good.

5.27 While NABARD should continue to fix targets and ensure that these are met, there is now a more critical need to establish procedures whereby lessons learned under evaluation and monitoring are translated into actions having a more direct impact on improving the quality of NABARD's lending for new schemes. Recently, and in accordance with Bank recommendations, NABARD has adopted procedures whereby its Board is now periodically informed of the principal findings of the monitoring and DOM studies. The next stage is for the Board to issue clear decisions as to the types of schemes/investments which have proved to be unviable and should not be approved for financing by NABARD. Recently NABARD has also adopted guidelines in this regard and assurances were obtained that these guidelines would be implemented during project implementation. Besides the completion of the 50 studies under ARDC IV, NABARD plans to undertake 40 additional evaluation studies by June 1987, and about 100 district-oriented monitoring studies annually, of which 15 would focus on IRDP operations (para 5.06).

5.28 Reporting. For Bank Group-assisted projects, NABARD sends quarterly reports in an agreed format and its annual reports to the Bank Group regularly and punctually. Although these reports provide substantial details of NABARD's refinancing operations, they fail to highlight the recovery position of the banking system, institutional and operational developments within NABARD, and the major problems experienced by NABARD in project execution. In order to implement the new eligibility criteria NABARD would need to collect data more systematically, on branch recoveries and their performance over a period. Essential data in this regard would be summarized and included in periodic progress reports under the project. Assurances were obtained that beginning September 30, 1986 NABARD would submit to the Bank, quarterly progress reports in such scope as and detail as requested by the Bank. NABARD would also prepare a project completion report not later than six months after the Project closing date.

## VI. PRODUCTION, MARKETING, PRICES AND FINANCIAL RETURNS TO PROJECT BENEFICIARIES

### Production

6.01 Investments in minor irrigation and land development, would enable farmers to intensify cultivation, raise crop yields, and shift to higher-value crops. In an increasing number of States, these efforts would be supported by improvements in extension services and research activities. Given the country-wide nature of the project, substantial variation in the phasing and composition of NABARD's refinancing disbursements, and enormous variation in cropping patterns across the country, providing reasonable estimates of annual incremental production is impossible. The following estimates indicate the likely order of magnitude of incremental production at full development, that is, between one and four years after the investments have been completed. 1/

| | Thousands of tons per annum |
|---|---|
| Rice | 1,950 |
| Wheat | 2,200 |
| Other cereals | 200 |
| Total foodgrains | 4,350 |
| | |
| Oilseeds | 450 |
| Sugarcane | 6,450 |
| Cotton | 300 |

Valued at 1983/84 farmgate prices, these estimated production increases would amount to some Rs 13,500 million (US$1,125 million), of which about 70% would be foodgrains. Diversified lending would lead to incremental production in milk, eggs, wool, fish and shrimp and plantation/horticulture crops such as coffee, tea, coconuts, cashewnuts, pineapples, apples, and grapes, many of

1/ Based on a NABARD refinancing program over three years.

which are destined for export or would reduce import requirements. The value of incremental output for diversified lending at full development might be in the order of Rs 4,100 million (US$342 million) making the total value of project induced annual incremental production Rs 17,600 million (US$1,467 million) at project maturity.

Marketing and Prices

6.02 The incremental production of foodgrains under the project (4.3 million tons) would amount to approximately 3% of India's 1983/84 production. Although widely dispersed throughout the country, the successful storage and marketing of this output would be linked to infrastructural investments of 5.0 million tons storage capacity as envisaged under the project. Marketable surpluses of other products are unlikely to be significant in relation to domestic and foreign outlets. Plantation crops are often connected to established markets, and any excess over domestic supply is usually exportable. In other product areas, scheme appraisals would assess marketing opportunities. Demand for poultry, eggs, fish, milk, and meat grows rapidly, particularly in urban centers; incremental output would be small compared to existing supply and could be absorbed through existing marketing channels.

6.03 Agricultural output is sold in a market in which output prices, particularly for foodgrains, respond to variations in supply and demand. Regarding major foodgrains, Government intervention is limited to the provision of minimum support prices set annually by the Agricultural Prices Commission and by the States. These support prices are established at levels to meet the twin objectives of ensuring adequate urban supplies and of building up reserve stocks. However, farmers are free to sell their produce at open market prices, which can and do range well above support prices. The level of agricultural taxation varies among States; in general, it is well below taxation of other sectors, consistent with the national objective of providing farmers financial incentives to increase production.

Financial Analysis

6.04 Under the project, an extremely wide range of investments in many different locations and under different circumstances would be undertaken. NABARD has some 24,000 schemes under implementation, many of which include more than one investment type. Due to this overwhelming variety, the analysis of the financial impact of project investments at the borrower level cannot claim to be representative; the models only illustrate the likely impact of a fraction of NABARD's investments. NABARD has, through evaluation and other studies, obtained ex post farm models of a variety of investments. The 12 models presented in the financial and economic analysis of this report are based on these sources. Model details are available in the Project File, and a summary of the results is presented in Annex 2. Investments are generally profitable; for minor irrigation investments financial rates of return range from 10% to 31%. These returns are attained on full investment costs without taking into account a possible subsidy to farmers. Production gains, particularly on larger farms (of 10-20 acres), come from increases in crop intensity, adoption of HYVs, and transition from rainfed to partially irrigated farming. Investments on small farms (about 5 acres), which are already partially irrigated, tend to have a lower rate of return. For diversified investments, relatively high rates of return are obtained, in part because they are based on investments assumed to have been completed without major problems. The evaluation studies on which these models are based indicate that a varying percentage of borrowers under each type of these schemes does not necessarily achieve the returns indicated. The models nevertheless show that investments financed by NABARD were financially viable and that incremental returns were sufficient to support debt repayment.

## VII. BENEFITS, RISKS, AND JUSTIFICATION

### Benefits

7.01 Besides generating measurable productive benefits, the central aim of the project would be to strengthen the institutional framework of agricultural credit in India. Improvements in the operation of NABARD and the management and operations of the institutional credit system as a whole would significantly add to ongoing efforts to strengthen the agricultural production system, and ensure more efficient utilization of agricultural infrastructure and financial resources. The project would fit well in the Bank Group's agriculture sector strategy, which seeks to emphasize greater selectivity in public investments, better support services, and more efficient management of the agricultural institutions and investments undertaken by GOI and State Governments. The project would be instrumental in improving credit delivery at the village level and a developing program to address broad sectoral and institutional problems of NABARD and the participating banks. Finally, it would encourage a greater attention to the problem of overdue agricultural loans and provide the participating banks with an incentive to improve their loan recovery performance.

7.02 The project would increase agricultural production (para 6.02), including forestry and fishery products. Increased foodgrain production would consolidate recent gains, which provided India foodgrain self sufficiency, lessening the need for imports in less productive years, facilitate maintenance of adequate stocks and exports. Incremental oilseed and cotton, and copra production would save foreign exchange by reducing the need for imports, while increases in the output of plantation crops, sugarcane, shrimp and fish would bolster export earnings.

### Beneficiaries

7.03 It is estimated that some five million farmers throughout India would directly benefit from the project. About 60% of the farmers would be small, with annual per capita incomes of less than Rs 1,070 (US$89). The employment effect depends on many factors. Assuming that each Rs 1.0 million (in 1984 prices) of NABARD refinance would generate 7,000 man-days in construction employment and 6,500 man-days of permanent employment, the project would create 375 million man-days of construction employment and 350 million man-days permanent employment.

Environmental Effects

7.04 No adverse effects on environmental conditions are expected from the project. Soil conservation and land reclamation components would alleviate problems of soil erosion, salinity, and water logging. Forestry schemes would promote better soil conservation and reduce wind erosion.

Economic Analysis

7.05 Economic rates of return and sensitivity tests for the minor irrigation models show rates of return of up to 22%, with low rates of return pertaining to shallow tubewells for smaller farms augmenting existing surface irrigation systems (Annex 2, Table 2). Economic returns are sensitive to increases in costs and a drop in revenues (Annex 2, Table 3). Economic rates of return for minor irrigation investments are lower than financial rates on account of the major indirect subsidy that farmers receive when getting an electricity connection. For diversified investments, economic rates of return range from 15% to 54% and, with the exception of investments in dairy, are not very sensitive to cost increases and a reduction in benefits. NABARD and the participating banks do not calculate economic rates of return for scheme appraisals and post-investment evaluation studies. While it is recognized that NABARD should eventually undertake economic analysis of schemes it refinances, foremost, it should concentrate on improving the quality of technical and financial appraisal.

Project Risks

7.06 The risk that the project would not succeed in achieving its objectives, particularly those concerning institutional development, exists. The greatest risk concerns the willingness and ability of GOI and the States to remain committed to the projects' objectives until the benefits clearly outweigh the initially considerable political costs. The strongest commitment to strengthen agricultural credit rests with NABARD, RBI, and the Ministry of Finance. This commitment is likely to continue and could be further enhanced by indications of continued Bank Group involvement in the sector. Opposition to changes in the credit system and operations could be reduced by highly professional implementation of the Credit Review and project supervision sensitive to the political environment in which agriculture credit functions. The second risk concerns NABARD's ability to supervise lending operations effectively and control improvement of the credit system. The roles and authority of the apex institutions of the credit system are governed, in part, by practical and political realities. NABARD has been reluctant to enforce its legal mandate, opting instead for moral persuasion, thereby acknowledging the risk that heavy-handed enforcement of its requirements might be harmful to its overall relations with the States. The project in part, is designed to strengthen NABARD's position vis-a-vis the participating banks and States. The Credit Review would pay particular attention to NABARD's role and functions and its relations with client banks. The third risk would be continuation of low levels of loan recovery by the participating banks, particularly of the weaker branches eligible for restricted NABARD refinancing. To reduce this risk, the project would introduce arrangements to strengthen the financial position of these institutions and provide assistance to improve recovery. By introducing a variety of operational improvements, NABARD's appraisal and supervisory practices would be strengthened, aiming at improving lending quality.

## VIII. ASSURANCES AND RECOMMENDATIONS

8.01 The following agreements, reached with GOI during negotiation have been incorporated in the draft Credit Agreement:

(a) It would engage consultants for the SEG and consultancy firms for the Credit Review in accordance with Bank guidelines, and would execute the Credit Review (para 4.11);

(b) It would maintain a Secretariat to assist the SEG in carrying out the Review (para 4.12);

(c) It would onlend US$340 million from the Loan to NABARD for its refinancing program in accordance with Schedule A.1 and make available to NABARD, as grant, US$31.5 million for the Pilot Scheme and NABARD's training programs (para 4.40);

(d) It would maintain separate records and accounts for expenditures under the Credit Review; it would provide the Bank Group copies of such accounts within six months after the finalization of each fiscal year of the project, and have such accounts audited by an independent auditor acceptable to the Bank Group, and promptly upon finalization of such audit, furnish the Bank Group with a copy (para 5.24)

8.02 Agreements reached with NABARD during negotiation and incorporated in the draft Project Agreement are as follows:

(a) It would extend the pilot scheme, to 20 districts and, by October 1, 1986, prepare an initial evaluation on the experience of the pilot scheme, to be followed by a second review to be completed by October 1, 1988 (para 4.14-4.15);

(b) Commencing June 30, 1986 and every year thereafter, provide the Bank with an up-to-date assessment of lending potential for groundwater based minor irrigation from SGO's of the States, including an analysis of the compatability of the Refinancing Program and the lending potential for such groundwater based minor irrigation investments (para 4.21);

(c) Commencing June 30, 1986, and by June 30 each year, NABARD would provide the Bank its detailed Refinancing Program (including a sectoral allocation of its lending program) for the ensuing year (para 4.38);

(d) That the procurement under the project would be as outlined in paragraphs 4.41 and 4.42;

(e) It would establish, by June 30, 1986, (i) an IRDP task force comprising representatives of a selected number of banks and chaired by NABARD to review operational procedures particularly at the district level; (ii) an IRDP planning and review group in each regional NABARD office consisting of staff to be made directly responsible for IRDP operations in each district of the State; and (iii) a special cell at NABARD headquarters to coordinate and monitor the work of these regional office groups, organize data collection, and develop and enforce NABARD policy (para 5.06);

(f) By August 31, 1986, it would submit to the Bank, for its review and comments, rehabilitation programs for each of the 10 LDBs currently under rehabilitation and thereafter implement such programs taking into account the Bank's comments if any (para 5.07);

(g) It would implement an agreed training program for (a) selected branch managers of about 10 LDBs, 20 RRBs, and 5 CBs, and (ii) training of NABARD's and participating banks' staff in rural banking operations and management during the project period (para 5.08);

(h) Commencing July 1, 1986, it would replace existing eligibility criteria with those set out in Schedule D (para 5.09);

(i) It would implement guidelines, satisfactory to the Bank, for the case-by-case analysis of accounts of bank branches (paras 5.11);

(j) It would implement a plan satisfactory to the Bank to staff its regional offices and the Institutional Development Department with sufficient institutional development specialists (para 5.12);

(k) It would implement guidelines satisfactory to the Bank for (i) providing temporary staff assistance to LDB branches and PLDBs which fall in the fourth category of the eligibility criteria in order to aid recovery and rehabilitation, and (ii) for mergers of LDB branches and PLDBs where appropriate (para 5.12);

(l) It would take such prompt actions as required to enforce its recommendations, including suspension of its refinancing operations with regard to any participating Bank (except CBs) which, after one calendar year has not satisfactorily complied with NABARD's major recommendations on matters, <u>inter alia</u>, lending operations, financial position and management structure (paras 5.12 and 5.25);

(m) It would apply the lending terms and conditions as detailed in Schedule A to all its refinancing, irrespective of the source of funds (para 5.20);

(n) It would be audited by an independent firm of public accountants acceptable to the Bank Group, and forward its audited accounts to the Bank Group within four months after the end of the fiscal year (para 5.24);

(o) It would implement guidelines satisfactory to the Bank on monitoring and evaluation of credit operations under the Refinancing Program (para 5.27); and

(p) Beginning September 30, 1986 and every quarter thereafter, it would submit project progress reports to the Bank of such scope and detail as reasonably requested by the Bank (para 5.28).

8.03 A condition of Loan Effectiveness would be the execution of a subsidiary agreement between GOI and NABARD incorporating terms and conditions in Schedule A.

8.04 The following matters were also discussed and understandings reached:

(a) The Terms of Reference for the Senior Expert Group and the five studies would be as per Annex 4 of this report (para 4.11).

(b) NABARD would, by June 1, 1986, submit a detailed proposal regarding extension of the pilot scheme including districts selected, number of banks and branches involved and a timetable for implementation, which would commence by July 1, 1986 (para 4.14).

(c) NABARD confirmed that it would undertake about 100 District-Oriented Monitoring (DOM) studies each year of which at least 15 would focus on IRDP (para 5.27).

8.07 With the above assurances, the proposed project would be suitable for an IBRD Loan of US$375 million.

## INDIA

## NABARD CREDIT PROJECT

### Lending Terms and Conditions

1. From GOI to NABARD:

   (a) For NABARD refinancing up to nine years, annual interest rate of not less than 6.75%, less 0.25% for repayment of principal and interest by the due dates;

   (b) For NABARD refinancing for more than nine and up to 15 years, annual interest rate of not less than 7.25%, less 0.25% for repayment of principal and interest by the due dates; and

   (c) GOI to bear the foreign exchange risk.

2. NABARD to Participating Banks:

   (a) Interest rate to be not less than 6.5% per annum for minor irrigation, 6.5% per annum for diversified lending under IRDP and to small farmers, and 8.0% per annum for all other diversified lending;

   (b) Repayment installments to coincide approximately with collections from ultimate borrowers; and

   (c) Refinancing to be by purchase of debentures or by loans, generally up to 95% of individual loans.

3. Participating Banks to Ultimate Borrowers:

   A. Minor Irrigation (including Land Development, Soil Conservation, and Reclamation)

      (a) Interest rate to be not less than 10.0% per annum;

      (b) A once and for all evaluation fee of 0.5% of the cost of project investment may be charged; this fee may be waived with the concurrence of NABARD;

      (c) Farmers' contribution (including obligatory purchase of LDB shares, own labor, and other contributions in cash or kind);

(i) for lending to small farmers, a minimum 5% of investment cost;

(ii) for farmers cultivating land that provides a pre-development net return of Rs 2,001 to Rs 3,500 (1972 prices) to family resources, a minimum of 10% of the investment cost. (For the purpose of determining the said net returns, the criteria set forth in Annexure 1 of this Schedule shall apply);

(iii) for other farmers, a minimum of 10% 1/ of the cost of pumpsets and 15% 2/ for other minor irrigation investments; and

(iv) for other borrowers, a minimum of 10%.

Provided, however that in cases where the total loan amount is Rs 5,000 or less, the borrower's contribution in the investment shall not be required.

(d) Repayment periods to be based on the ultimate borrower's repayment capacity, but generally not to exceed;

For Lending to Small Farmers:

(i) Nine years on loans for pumpsets, whether financed as separate loans or included in minor irrigation loans;

(ii) 15 years on loans for all other minor irrigation investments;

For Lending to other Farmers:

(iii) Nine years on loans for pumpsets and minor irrigation investments; and

For Lending to other Borrowers:

(iv) 15 years maximum on loans for minor irrigation investments.

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1/ 7% for two or more farmers in a group loan.

2/ 10% for two or more farmers in a group loan.

(e) Grace periods may be granted at the discretion of NABARD, provided that the repayment period of such loans is not exceeded; and

(f) Technical and other standards and conditions, as laid down by NABARD, taking into consideration any applicable guidelines which the Bank Group shall have reasonably instituted will be observed.

B. Diversified Lending:

(a) Annual interest rate to be not less than 10.0% per annum for diversified lending under IRDP and to small farmers and 12.5% for all other diversified lending;

(b) A once and for all evaluation fee of 0.5% of the cost of investment may be charged; this fee may be waived with the concurrence of NABARD;

(c) Borrowers' contribution (including obligatory purchase of LDB shares, own labor, and other contributions in cash or kind).

(i) for lending to small farmers, a minimum of 5% of the investment cost;

(ii) for farmers cultivating land providing a pre-development net return of Rs 2,000 to Rs 3,500 (1972 prices), to family resources a minimum of 10% 1/ of the investment costs. For the purpose of determining said net returns, the criteria set forth in Annexure 1 of this Schedule shall apply;

(iii) for other farmers a minimum of 15% 2/ of the investment cost; and

(iv) for other borrowers a minimum of 15% 2/ of the investment costs.

Provided, however that in cases where the total loan amount is Rs 5,000 or less, the borrower's contribution in the investment shall not be required.

(d) Repayment periods to be based on the ultimate borrower's repayment capacity, but not to exceed 15 years (including applicable grace periods).

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1/ 7% for two or more farmers in a group loan.

2/ 10% for two or more borrowers in a group loan.

C. General:

(a) NABARD and participating banks to maintain separate accounts for lending to small farmers;

(b) Security to be in accordance with arrangements between participating banks and NABARD;

(c) NABARD shall refinance only sound investments which are considered to be financially viable, and are backed with satisfactory technical and administrative management to be identified at the time of approval of refinancing;

(d) Where necessary, NABARD may approve rescheduling of loans, particularly when requests for rescheduling are from districts suffering from crop failures due to adverse climatic conditions, in accordance with NABARD's existing guidelines; and

(e) NABARD shall obtain undertakings from the Participating Banks that the terms and conditions applicable to the Participating Banks' loans to ultimate borrowers as set forth in this schedule, shall be made applicable to all loans extended by the Participating Banks for similar purposes irrespective of the source of funds.

These lending terms and conditions listed under 1, 2 and 3 above may be amended from time to time as agreed between the Bank, GOI, and NABARD.

## Small Farmer Definition

1. "Small farmer" shall mean any farmer cultivating land providing a pre-development net return to family resources to such farmers and his family not exceeding Rs 2,000 based on 1972 prices. 1/

2. For the purpose of determining said net return, the following criteria shall apply:

(a) "land" shall include all land actually cultivated by the farmer notwithstanding the fact that ownership of such land may be vested in one or more persons;

(b) "net return to family resources" shall mean gross family income from the land, less costs actually incurred (including cash value of the farmer's own input, including seed, fertilizer, hired human and bullock labor, feed consumed by family bullocks, irrigation charges, land revenue, interest on crop loan, and rent on leased land); and

(c) the amounts for the current year shall be arrived at by applying the current Agricultural Laborer's Consumer Price Index for the State in which the land is located to the 1972 base, set forth in paragraph 1 hereto.

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1/ NABARD calculates for each region what land area would on average yield a net return of Rs 2,000 in 1972 prices. Farmers with less land are classified as "small".

# INDIA

## NABARD CREDIT PROJECT

### Schedule of Disbursement Tranches

| | Date | Amount | Disbursement Conditions |
|---|---|---|---|
| Tranche 1 | Loan effectiveness | US$100 M | Introduction by NABARD of eligibility criteria as specified in Schedule D.<br><br>Contracts signed by four of the seven Senior Expert Group Members of Agricultural Credit Review.<br><br>Receipt of statement from NABARD certifying that the US$100 M tranche has been utilized to finance loans under its refinancing program. |
| Tranche 2 | 12 months after disbursement of Tranche 1 | US$80 M | Recruitment of the remaining 3 of the Senior Expert Group Members of Agriculture Credit Review.<br><br>Receipt of draft reports of two of the five studies of Agricultural Credit Review.<br><br>Receipt of statement from NABARD certifying that the US$80 M tranche has been utilized to finance loans under its refinancing program. |
| Tranche 3 | 24 months after disbursement of Tranche 1 | US$80 M | Receipt of remaining three draft reports of Studies I to IV of Agricultural Credit Review.<br><br>Receipt of statement from NABARD certifying that the US$80 M tranche has been utilized to finance loans under its refinancing program. |
| Tranche 4 | 36 months after disbursement of Tranche 1 | US$80 M | Presentation to Bank Group of completed studies of Agricultural Credit Review and recommendations of Senior Expert Group.<br><br>Receipt of statement from NABARD certifying that the US$80 M of this tranche has been utilized to finance loans under its refinancing program. |

# INDIA

## NABARD CREDIT PROJECT

## Criteria for Eligibility of Financial Institutions to Receive Refinancing from NABARD

### A. Criteria Applicable to PLDBs, LDB Branches, RRBs and CB Branches

1. With effect from July 1, 1986, all PLDBs, LDB branches, RRBs and CB branches requesting NABARD refinancing shall be classified in the four categories, according to the recovery percentage achieved during the previous year. NABARD refinancing for branches of CBs and LDBs, PLDBs and RRBs in each category (except for those in Special Assistance state) 1/ shall be as stated in the table below. The recovery percentages for categories II, III and IV shall be revised upwards as shown:

| | (Annual Recovery Rate %) | |
|---|---|---|
| Category | Up to 12/31/87 | Effective 1/1/88 |
| I | 75 or more | 75 or more |
| II | 60-74 | 65-74 |
| III | 36-59 | 41-64 |
| IV | 0-35 | 0-40 |

Refinance Facility for Branches in Category

I : Unlimited Access

II : The highest amount lent in any of the last 5 years or average recovered in previous 3 years, whichever is greater.

III : The amount recovered in the previous fiscal year or the average amount recovered in past 3 years, whichever is greater;

IV : During the first year in which a branch falls in this category, refinancing would be limited to 75% of the amount calculated for Category III above. If the branch remains in this category and fails to demonstrate an improvement in its recovery of at least 7 percentage points, refinancing would be further reduced to 50% in the second and 25% in in the third year.

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1/ Existing (ARDC IV) eligibility criteria will continue to apply to branches in States/Union territories of Arunchal Pradesh, Assam, Maniiupur Meghalaya, Muzoran Nagaland, Sikkim and Nipura. Refinance to these states is expected to be less than 2% of NABARD's refinancing program.

points, refinancing would be further reduced to 50% in the second and 25% in in the third year.

2. A State Government contributions would not, in any way, be applied or counted as cash recoveries from ultimate borrowers for the purposes of eligibility for NABARD refinancing. Any State Government contribution to recovery of "blocked" 1/ accounts, interest remission, or subsidy provided to any LDB branch, CB branch, PLDB and RRB would also not, in any way, be counted as recovery for purposes of eligibility for NABARD refinancing.

3. Any LDB branch, CB branch, PLDB or RRB with restricted eligibility, pursuant to subparagraph (1) above, must utilize any refinancing received from NABARD towards its ongoing investments, for which it already has made disbursements and until such investments are carried out.

4. For the purposes of this Schedule, the following terms have the following meanings:

(i) "demand" means the aggregate of principal and interest on medium-term and long-term loans due during the fiscal year under consideration, plus overdues from previous fiscal years. LDB loans which have been "blocked" according to NABARD and Bank Group criteria will be excluded from calculations of demand; and

(ii) "recovery rate" means that part of demand which has been collected in cash; recoveries paid by State Governments concerning "blocked" accounts agreed to by NABARD and the Bank Group would be excluded from recovery calculations.

B. Criteria Applicable to State Cooperative Bank and District Central Cooperative Banks

NABARD shall refinance in any fiscal year medium- and long-term loans made by an SCB only where such SCB or one of its branches shall have achieved a recovery rate of not less than 60% in the preceding fiscal year.

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1/ Between FY81/82 and FY83/84 chronic overdues of selected LDBs were transferred in "blocked" accounts, and the State Government pays the LDB concerned any shortfall in collecting dues, generally over a five-year period.

# INDIA

## NABARD CREDIT PROJECT

### Pilot Scheme for Strengthening Credit Delivery System

### A. Summary of Indicated Costs for Pilot Project 1/

(Rs '000)

| 2/ | Year 1 | Year 2 | Year 3 | Total |
|---|---|---|---|---|
| Total Cost for NABARD Head Office (Table B) | 2,611 | 2,132 | 2,279 | 7,022 |
| Total Costs for One Regional Office (Table C) | 688 | 414 | 432 | 1,534 |
| x No. of Regional Offices | x 20 | x 20 | x 20 | x 20 |
| Subtotal | 13,760 | 8,280 | 8,640 | 30,680 |
| Total Cost for One District Office (Table D) | 5,911 | 4,709 | 3,426 | 14,046 |
| x No. of District Offices | x 20 | x 20 | x 20 | x 20 |
| Subtotal | 118,220 | 94,180 | 68,520 | 280,920 |
| Total Pilot Scheme | 134,591 | 104,592 | 79,439 | 318,622 |
| Equivalent to: | | | | |
| Amount Provided for Pilot in the Project | | | | |

1/ NABARD Head Office; 20 Regional offices; 20 District Offices. Costs include physical contingencies of 5% and price contingencies at 7% for the first and 7.5% for second and third Project Year. In calculating price contingencies it is assumed that expenditure in a year (including physical contingencies) will be incurred evenly throughout the year. Thus net rates applied on base cost plus physical contingencies are as follows:

Year 1 : 3.5 (50%)
Year 2 : 10.75 (7% + 3.75%)
Year 3 : 18.25 (7% + 7.5% + 3.75%)

ANNEX 1
Table 2

# INDIA

## NABARD CREDIT PROJECT

### Pilot Scheme for Strengthening Credit Delivery System

### B. NABARD Head Office Costs for Pilot Project
(Rs '000)

| | | Cost | Year 1 | | Year 2 | | Year 3 | | Total |
|---|---|---|---|---|---|---|---|---|---|
| | No. | p.a. | No. | Cost | No. | Cost | No. | Cost | Cost |
| **Incremental Staff** | | | | | | | | | |
| General Manager | 1 | 72.0 | 1 | 72 | 1 | 72 | 1 | 72 | 216 |
| Deputy General Manager | 2 | 65.0 | 2 | 130 | 2 | 130 | 2 | 130 | 390 |
| Manager | 4 | 58.0 | 4 | 232 | 4 | 232 | 4 | 232 | 696 |
| Deputy Manager | 4 | 48.0 | 4 | 192 | 4 | 192 | 4 | 192 | 576 |
| DO | 8 | 40.0 | 8 | 320 | 8 | 320 | 8 | 320 | 960 |
| ADO | 8 | 28.0 | 8 | 224 | 8 | 224 | 8 | 224 | 672 |
| Steno | 6 | 30.0 | 6 | 180 | 6 | 180 | 6 | 180 | 540 |
| Typist | 6 | 15.0 | 6 | 90 | 6 | 90 | 6 | 90 | 270 |
| Clerk | 6 | 12.0 | 6 | 72 | 6 | 72 | 6 | 72 | 216 |
| Peons | 6 | 10.0 | 6 | 60 | 6 | 60 | 6 | 60 | 180 |
| Consultant | 1 | 30.0 | 1 | 30 | 1 | 30 | 1 | 30 | 90 |
| Driver | 2 | 20.0 | 2 | 40 | 2 | 40 | 2 | 40 | 120 |
| Subtotal | | | | 1,642 | | 1,642 | | 1,642 | 4,926 |
| **Incremental Operating Costs** | | | | | | | | | |
| Incremental Staff TA/DA | - | - | - | 150 | - | 150 | - | 150 | 450 |
| Vehicle Operation (Cars) | 2 | 15.0 | 2 | 30 | 2 | 30 | 2 | 30 | 90 |
| Supplies | - | - | - | 3 | - | 3 | - | 4 | 10 |
| Telephone | - | - | - | 8 | - | 8 | - | 9 | 25 |
| Subtotal | | | | 191 | | 191 | | 193 | 575 |
| **Vehicles and Equipment** | | | | | | | | | |
| Cars | 2 | 125.0 | 2 | 250 | - | - | - | - | 250 |
| Office Cabins | - | - | - | 50 | - | - | - | - | 50 |
| Furniture | - | - | - | 80 | - | - | - | - | 80 |
| Office Equipment | - | - | - | 190 | - | - | - | - | 190 |
| Subtotal | | | | 570 | | - | | - | 570 |
| Base Cost Total (1984 prices) | | | | 2,403 | | 1,833 | | 1,835 | 6,071 |
| Physical Contingency (5%) | | | | 120 | | 92 | | 92 | 304 |
| Price Contingency | | | | 88 | | 207 | | 352 | 647 |
| Total for NABARD Head office | | | | 2,611 | | 2,132 | | 2,279 | 7,022 |

ANNEX 1
Table 3

INDIA

NABARD CREDIT PROJECT

Pilot Scheme for Strengthening Credit Delivery System

C. Model Cost Table for One Regional Office (NABARD)
(Rs '000)

| | No. | Cost p.a. | Year 1 No. | Year 1 Cost | Year 2 No. | Year 2 Cost | Year 3 No. | Year 3 Cost | Total Cost |
|---|---|---|---|---|---|---|---|---|---|
| **Incremental Staff** | | | | | | | | | |
| Manager | 1 | 58.0 | 1 | 58 | 1 | 58 | 1 | 58 | 174 |
| Deputy Manager | 1 | 48.0 | 1 | 48 | 1 | 48 | 1 | 48 | 144 |
| Additional ADO | 2 | 28.0 | 2 | 56 | 2 | 56 | 2 | 56 | 168 |
| Steno | 1 | 30.0 | 1 | 30 | 1 | 30 | 1 | 30 | 90 |
| Typist | 2 | 15.0 | 2 | 30 | 2 | 30 | 2 | 30 | 90 |
| Clerk | 2 | 12.0 | 2 | 24 | 2 | 24 | 2 | 24 | 72 |
| Peon | 2 | 10.0 | 2 | 20 | 2 | 20 | 2 | 20 | 60 |
| Driver | 1 | 20.0 | 1 | 20 | 1 | 20 | 1 | 20 | 60 |
| Subtotal | | | | 286 | | 286 | | 286 | 858 |
| **Incremental Operating Costs** | | | | | | | | | |
| Incremental Staff TA/DA | - | - | - | 50 | - | 50 | - | 50 | 150 |
| Vehicle Operation (Car) | 1 | 12.0 | 1 | 12 | 1 | 12 | 1 | 12 | 36 |
| Supplies | - | - | - | 3 | - | 2 | - | - | 5 |
| Telephone Charges | - | - | - | 12 | - | 6 | - | - | 18 |
| Subtotal | | | | 77 | | 70 | | 62 | 209 |
| **Vehicles and Equipment** | | | | | | | | | |
| Cars | 1 | 125.0 | 1 | 125 | - | - | - | - | 125 |
| Office Cabins | - | - | - | 15 | - | - | - | - | 15 |
| Furniture | - | - | - | 50 | - | - | - | - | 50 |
| Office Equipment | - | - | - | 80 | - | - | - | - | 80 |
| Subtotal | | | | 270 | | - | | - | 270 |
| Base Cost Total | | | | 633 | | 356 | | 348 | 1,337 |
| Physical Contingency (5%) | | | | 32 | | 18 | | 17 | 67 |
| Price Contingency | | | | 23 | | 40 | | 67 | 130 |
| Total for One Regional Office | | | | 688 | | 414 | | 432 | 1,534 |

# INDIA

## NABARD CREDIT PROJECT

### Pilot Scheme for Strengthening Credit Delivery System

### D. Model Cost Table for One District 1/

(Rs '000)

| | No. | Cost p.a. | Year 1 No. | Year 1 Cost | Year 2 No. | Year 2 Cost | Year 3 No. | Year 3 Cost | Total Cost |
|---|---|---|---|---|---|---|---|---|---|
| **Incremental Staff** | | | | | | | | | |
| Field Officer | 50 | 20.0 | 50 | 1,000 | 50 | 1,000 | 50 | 1,000 | 3,000 |
| Development officer | 5 | 25.0 | 5 | 125 | 5 | 125 | 5 | 125 | 375 |
| Senior Development Officer | 1 | 30.0 | 1 | 30 | 1 | 30 | 1 | 30 | 90 |
| Project Coordination Officer | 1 | 35.0 | 1 | 35 | 1 | 35 | 1 | 35 | 105 |
| Support Staff 2/ | 15 | 18.0 | 15 | 270 | 15 | 270 | 15 | 270 | 810 |
| Subtotal | | | | 1,460 | | 1,460 | | 1,460 | 4,380 |
| **Training** | | | | | | | | | |
| Monthly Training (Sessions) | 60 3/ | 1.0 | 60 | 60 | 60 | 60 | 60 | 60 | 180 |
| Orientation Training (Individual) | 75 4/ | 1.0 | 75 | 75 | 75 | 75 | 75 | 75 | 225 |
| Special Programs for SDOs/DOs | 1 | 100.0 | 1 | 100 | 1 | 100 | 1 | 100 | 300 |
| Subtotal | | | | 235 | | 235 | | 235 | 705 |
| **Incremental Operating Costs** | | | | | | | | | |
| Incremental Staff TA/DA | 57 | 6.0 | 57 | 342 | 57 | 342 | 57 | 342 | 1,026 |
| Incremental Costs of Existing Staff | 94 | 3.0 | 94 | 282 | 94 | 282 | 94 | 282 | 846 |
| Vehicle Operation (4-WD) | 9 | 36.0 | 9 | 324 | 9 | 324 | 9 | 324 | 972 |
| Office Operation | 1 | 42.0 | 1 | 42 | 1 | 42 | 1 | 42 | 126 |
| Training Materials | 1 | 50.0 | 1 | 50 | 1 | 50 | 1 | 50 | 150 |
| Training Hall Rent | 1 | 24.0 | 1 | 24 | 1 | 24 | 1 | 24 | 72 |
| | | | | 1,064 | | 1,064 | | 1,064 | 3,192 |
| **Vehicles and Equipment** | | | | | | | | | |
| 4 WD 5/ | 9 | 130.0 | 6 | 780 | 3 | 390 | - | - | 1,170 |
| Motorcycles 6/ | 150 | 18.0 | 100 | 1,800 | 50 | 900 | - | - | 2,700 |
| Training and Office Equipment | 1 | 100.0 | 1 | 100 | - | - | - | - | 100 |
| Subtotal | | | | 2,680 | | 1,290 | - | - | 3,970 |
| Base Cost Total | | | | 5,439 | | 4,049 | | 2,759 | 12,247 |
| Physical Contingency (5%) | | | | 272 | | 203 | | 138 | 613 |
| Price Contingency | | | | 200 | | 457 | | 529 | 1,186 |
| Total for One District | | | | 5,911 | | 4,709 | | 3,426 | 14,046 |

1/ On assumption that 130 FOs (of whom 50 incremental), 16 DOs (5 incremental), 4 DSOs (1 incremental), and 1 PCO (incremental).
2/ Clerks, typists, drivers.
3/ Five sessions monthly, costs to cover training materials, etc.
4/ Once every two years per staff member, 10 day sessions, costs to cover training personnel and training material costs.
5/ For SDO and PCO.
6/ Motorcycle or moped (for PACs secretaries).
7/ Typewriters, duplicators, slide projectors, basic furniture, calculators, etc.

# INDIA

## NABARD CREDIT PROJECT

### Agriculture Credit Review - Cost Estimates

| | Unit | | Unit Cost US$ | Quantity | Total Cost (US$'000) |
|---|---|---|---|---|---|
| **Staff Costs** | | | | | |
| Studies: I .................... | M/M | (local) | 3,000 | 28 | 84 |
| | | (foreign) | 10,000 | 7 | 70 |
| II .................... | M/M | (L) | 3,000 | 45 | 135 |
| III .................... | M/M | (L) | 3,000 | 8 | 24 |
| | M/M | (F) | 10,000 | 32 | 320 |
| IV .................... | M/M | (L) | 3,000 | 30 | 90 |
| V .................... | M/M | (L) | 3,000 | 9 | 27 |
| | M/F | (F) | 10,000 | 36 | 360 |
| Senior Expert Group | M/M | (L) | 5,000 | 72 | 360 |
| | M/M | (F) | 15,000 | 27 | 405 |
| | | | | | 1,875 |
| **International Travel** | | | | | |
| Studies: 1 trip per 3 M/M of foreign consultants | 1 round trip | | 3,000 | 25 | 75 |
| **Senior Expert Group** | | | | | |
| 4 trips/year for each foreign member | 1 round trip | | 3,000 | 36 | 108 |
| | | | | | 183 |
| **Local Travel** | | | | | |
| Rs 3,000 per M/M for all participating staff | M/M | | 250 | 195 | 49 |
| **Per-diem** | | | | | |
| Studies: 50% of total M/M of all consultants | Travel | | 60 | 2,925 | 175 |
| Senior Expert Group 75% of total M/M of all experts | Days | | 60 | 2,230 | 134 |
| | | | | | 358 |
| Total Base Cost | | | | | 2,416 |
| Physical Contingency (38%) | | | | | 918 |
| Price Contingency 1/ | | | | | 163 |
| Total | | | | | 3,497 |

1/ Above prices would apply in 1985/86. Price contingency of 7.5% per year compounded applied to expenditures to be incurred in 1986/87 and 1987/88.

INDIA

NABARD CREDIT PROJECT

NABARD's Expected Expenditure on Training Programs - 1986/87 to 1988/89

| Courses at, or Organized by College of Agriculture Bank, Poona | For Staff of | No. of Courses Per Year | No. of Participants Per Year | Costs Per Course or (L) /1 ('000) | Total Cost (Rs '000) /2 | | | Total |
|---|---|---|---|---|---|---|---|---|
| | | | | | 1986/87 | 1986/87 | 1986/87 | |
| **Courses at, or Organized by College of Agriculture Bank, Poona:** | | | | | | | | |
| Rural Development | CBs, RRBs, LDB | 22 | 550 | 250 | 5,500 | 5,913 | 6,356 | 17,769 |
| Rural Development (refresher) | CBs, RRBs, LDB | 6 | 150 | 125 | 750 | 806 | 867 | 2,423 |
| Rural Development (regional based) | CBs, RRBs, LDB | 7 | 175 | 38 | 266 | 286 | 307 | 859 |
| Technical Courses | | | | | | | | |
| - Plantation & Horti. | CBs, RRBs, LDB | 20 | 500 | 8 | 160 | 172 | 185 | 517 |
| - Dryland Farming | CBs, RRBs, LDB | 32 | 800 | 12 | 384 | 413 | 444 | 1,241 |
| - Minor Irrigation | CBs, RRBs, LDB | 16 | 400 | 5 | 80 | 86 | 92 | 258 |
| - Animal Husbandry | CBs, RRBs, LDB | 4 | 100 | 8 | 32 | 34 | 37 | 103 |
| - Inland Fisheries | CBs, RRBs, LDB | 25 | 625 | 10 | 250 | 269 | 289 | 808 |
| - Forestry | CBs, RRBs, LDB | 4 | 100 | 20 | 80 | 86 | 92 | 258 |
| - Non-farm Sector | CBs, RRBs, LDB | 5 | 125 | 50 | 250 | 269 | 289 | 808 |
| **Training on IRDP** (To be undertaken at various centres) | /3 | /3 | /3 | (L) | 375 | 403 | 433 | 1,211 |
| **Courses at Bankers Insitute of Rural Development (BIRD) and Rural Training Centres (RTC) (run by NABARD)** | | | | | | | | |
| BIRD | /3 | /3 | /3 | (L) | 6,256 | 6,725 | 7,230 | 20,211 |
| RTC - Bolpur | /3 | /3 | /3 | (L) | 1,805 | 1,940 | 2,086 | 5,831 |
| RTC - Mangalore | /3 | /3 | /3 | (L) | 2,432 | 2,614 | 2,810 | 7,856 |
| Proposed 3 new RTCs | /3 | /3 | /3 | (L) | - | 2,200 | 2,365 | 4,565 |
| Proposed Staff Training Centres | /3 | /3 | /3 | (L) | 1,250 | 1,344 | 1,445 | 4,039 |
| **Courses at Junior Level Centres (by LDBs)** | LDBs | /3 | /3 | (L) | 10,025 | 10,777 | 11,585 | 32,387 |
| **Other Courses and Costs of NABARD** | | | | | | | | |
| Program for SCBs/CCBs | SCBs, CCBs | 15 | 375 | 40 | 600 | 645 | 693 | 1,938 |
| Seminars/Workshops | | 3 | 75 | | 50 | 54 | 58 | 162 |
| Courses New NABARD Staff | NABARD | /3 | /3 | (L) | 880 | 946 | 1,017 | 2,843 |
| Overseas Training Costs | NABARD | /3 | /3 | (L) | 250 | 269 | 289 | 808 |
| Expenses of NABARD's Training Division | | | | (L) | 2,000 | 2,150 | 2,311 | 6,461 |
| | | | | | 33,675 | 38,401 | 41,280 | 113,356 |

/1 (L) = Lump sum estimate.

/2 1986/87 estimated costs have been increased by 7.5% per year to allow for inflation in 1987/88 and 1988/89.

/3 To be determined by NABARD in consultation with participating banks.

ANNEX 1
Table 7

# INDIA

## NABARD CREDIT PROJECT

## Estmated Disbursements

| IBRD Fiscal Year and Quarter | During Quarter | Cumulative |
|---|---|---|
| | US$ M | |
| **1986-87** | | |
| July - September | 101.5 | 101.5 |
| October - December | 2.0 | 103.5 |
| January - March | 2.5 | 106.0 |
| April - June | 3.0 | 109.0 |
| **1987-88** | | |
| July - September | 83.0 | 192.0 |
| October - December | 4.0 | 196.0 |
| January - March | 4.0 | 200.0 |
| April - June | 4.0 | 204.0 |
| **1988-89** | | |
| July - September | 83.5 | 287.5 |
| October - December | 2.5 | 290.0 |
| January - March | 2.0 | 292.0 |
| April - June | 1.5 | 293.5 |
| **1989-90** | | |
| July - September | 81.5 | 375.0 |

INDIA

NABARD CREDIT PROJECT

Investment Models - Financial and Economic Rates of Return /1

| District/State | Investment | Power | Annual Incr. Income (Rs '000) /2 | Financial Rate of Return(%) with Subsidy | Financial Rate of Return(%) w/o Subsidy | Economic Rate of Return(%) /3 A | Economic Rate of Return(%) /3 B | Economic Rate of Return(%) /3 C |
|---|---|---|---|---|---|---|---|---|
| Bhojpur/Bihar | STW | Electric | 5.5 | 34.3 | 26.9 | 35.1 | 24.7 | 17.6 |
| Purnea/Bihar | STW | Electric | 8.0 | 38.2 | 31.1 | 38.9 | 28.9 | 21.7 |
| Allahabad/Uttar Pradesh (small farmer) | STW | Electric | 2.1 | 15.6 | 10.3 | 9.5 | 4.3 | 0.7 |
| Muzaffarnagar/Uttar Pradesh (small farmer) | STW | Electric | 3.2 | 20.7 | 14.8 | 2.2 | ( 0.1) | 1.1 |
| Kota/Rajasthan | Dugwell | Electric | 4.9 | 18.1 | 14.2 | 20.5 | 15.8 | 11.7 |
| Sholapur-Ahmednagar/Maharashtra | Dugwell | Electric | 6.3 | 24.8 | 19.8 | 14.7 | 11.2 | 8.1 |
| Madurai/Tamil Nadu | Coffee Plantation | | 30.0 | - | 22.5 | - | - | 41.1 |
| Anantpur/Andhra Pradesh | Grapevine Plantation | | 56.4 | - | 24.4 | - | - | 15.0 |
| Nalgonda/Andhra Pradesh | Sheep Farming | | 3.5 | 55.0 | 39.6 | - | - | 39.6 |
| - /Uttar Pradesh | Dairy Development | | 6.1 | 42.0 | 31.2 | - | - | 16.9 |
| Hooghly/West Bengal | Power Tiller | | 21.6 | - | 47.0 | - | - | 54.3 |
| Thanjavur/Tamil Nadu | Tractor | | 38.3 | - | 35.0 | - | - | 33.3 |

/1 Models are detailed in project file, which also contains analysis of the use diesel powered pumps for the six minor-irrigation models.
/2 At full development.
/3 For models with electric pumps:
A: Connection charge of Rs 3,000 and annual charge of Rs 1,500 for STW, Rs 750 for Dugwell
B: Connection charge of Rs 10,000 and annual charge of Rs 1,500 for STW, Rs 750 for Dugwell
C: Connection charge of Rs 19,000 and varying annual charge (Rs 1,270 to Rs 3,075 depending on district).

ANNEX 2
Table 2

# INDIA

## NABARD CREDIT PROJECT

### Investment Models - Sensitivity Analysis

| District/State | Investment | Point Estimate ERR (%) | Costs + 10% Benefits - 10% |
|---|---|---|---|
| Bhojpur/Bihar | STW/electric | 17.6 /1 | 11.6 |
| Purnea/Bihar | STW/electric | 21.7 /1 | 13.9 |
| Allahabad/UP | STW/electric | 0.7 /1 | (4.3) |
| Muzaffarnagar/UP | STW/electric | 1.1 /1 | (5.4) |
| Kota/Rajasthan | Dugwell/electric | 11.7 /1 | 7.9 |
| Sholapur/Maharashtra | Dugwell/electric | 8.1 /1 | 1.5 |
| Madurai/Tamil Nadu | Coffee Plantation | 41.1 | 29.5 |
| Anantpur/AP | Grapevine Plantation | 15.0 | 2.1 |
| Nalgonda/AP | Sheep Farming | 39.6 | 29.4 |
| - /UP | Dairy Development | 16.9 | (12.4) |
| Hooghly/West Bengal | Power Tiller | 54.3 | 35.2 |
| Thanjavur/Tamil Nadu | Tractor | 33.3 | 22.9 |

/1 Assuming connection charge of Rs 19,000 and varying annual charge (Rs 1,270 to Rs 3,075 depending on district).

# INDIA

## NABARD CREDIT PROJECT

### Summary Balance Sheets - ARDC/NABARD (1977-1985)
(as of June 30, in Rs M)

| | ARDC | | | | | | NABARD | | |
|---|---|---|---|---|---|---|---|---|---|
| | 1977 | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 |
| **ASSETS** | | | | | | | | | |
| Cash on Hand and at Banks and Investments | 2 | 1 | 319 | 263 | 701 | 1,326 | 2,775 | 5,953 | 7,356 |
| Interest-free Deposits with RBI | - | - | - | - | - | - | 6,309 | 5,309 | 3,989 |
| Loans and Debentures | 7,222 | 8,736 | 10,466 | 13,036 | 15,927 | 19,259 | 34,645 | 40,001 | 44,802 |
| Accrued Interest | 276 | 342 | 389 | 491 | 595 | 691 | 1,184 | 1,268 | 1,676 |
| Other Assets | 54 | 260 | 232 | 156 | 60 | 110 | 276 | 401 | 515 |
| Total Assets | 7,554 | 9,339 | 11,406 | 13,946 | 17,283 | 21,386 | 45,189 | 52,932 | 58,338 |
| **LIABILITIES** | | | | | | | | | |
| Bonds and Debentures | 1,817 | 2,023 | 2,464 | 2,860 | 3,211 | 3,761 | 4,061 | 4,364 | 4,529 |
| Interest-free Deposits | 45 | 85 | 66 | 67 | 71 | 96 | 110 | 141 | 243 |
| Loans from GOI | 3,400 | 4,276 | 5,024 | 6,446 | 8,785 | 10,601 | 12,159 | 13,827 | 16,163 |
| Loans from RBI | 1,726 | 2,168 | 2,635 | 3,147 | 3,664 | 5,139 | 9,041 | 10,390 | 7,618 |
| Other Liabilities | 145 | 198 | 369 | 396 | 374 | 445 | 585 | 544 | 721 |
| Total Liabilities | 7,133 | 8,750 | 10,558 | 12,916 | 16,105 | 20,042 | 25,956 | 29,266 | 29,274 |
| **RURAL CREDIT FUNDS /1** | | | | | | | | | |
| Long-term Operations | - | - | - | - | - | - | 12,520 | 15,770 | 19,920 |
| Stabilization | - | - | - | - | - | - | 4,480 | 5,330 | 6,280 |
| Total Rural Credit Funds | - | - | - | - | - | - | 17,000 | 21,100 | 26,200 |
| **EQUITY** | | | | | | | | | |
| Paid-up Shares | 350 | 475 | 575 | 575 | 575 | 575 | 1,000 | 1,000 | 1,000 |
| Reserves and Undistributed Income | 71 | 114 | 273 | 455 | 603 | 769 | 1,233 | 1,566 | 1,864 |
| Total Equity | 421 | 589 | 848 | 1,030 | 1,178 | 1,344 | 2,233 | 2,566 | 2,864 |
| Total Liabilities and Equity | 7,554 | 9,339 | 11,406 | 13,946 | 17,283 | 21,386 | 45,189 | 52,932 | 58,338 |

/1 These funds were obtained through transfers from RBI on July 1, 1982 when NABARD was established and assumed the ownership and responsibilities for loans previously financed by RBI. Annual additions to the funds are made by RBI and from NABARD's profits.

ANNEX 3
Table 2

INDIA

NABARD CREDIT PROJECT

Summary Statement of Income and Expenditure - ARDC/NABARD (1977-1985)
(for the Years Ended June 30, in Rs M)

| | ARDC | | | | | | NABARD | | |
|---|---|---|---|---|---|---|---|---|---|
| | 1977 | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 |
| **INCOME** | | | | | | | | | |
| Interest Earned on Loans | 400 | 523 | 642 | 786 | 955 | 1,142 | 2,076 | 2,548 | 2,938 |
| Other Income | 10 | 24 | 46 | 64 | 95 | 165 | 419 | 703 | 912 |
| Total Income | 410 | 547 | 688 | 850 | 1,050 | 1,307 | 2,495 | 3,251 | 3,850 |
| **EXPENSES** | | | | | | | | | |
| Interest Paid on Borrowings | 306 | 402 | 509 | 630 | 801 | 1,029 | 1,403 | 1,637 | 1,791 |
| Salaries and Staff Benefits | 15 | 17 | 26 | 41 | 54 | 62 | 113 | 116 | 132 |
| General Expenses | 10 | 9 | 13 | 15 | 18 | 22 | 40 | 65 | 79 |
| Total Expenses | 331 | 428 | 548 | 686 | 873 | 1,113 | 1,556 | 1,818 | 2,002 |
| Profit Before Tax | 79 | 119 | 140 | 164 | 177 | 194 | 939 | 1,433 | 1,848 |
| Transfer to Special Reserve | 20 | 30 | - | - | - | - | - | - | - |
| Tax | 34 | 52 | - | - | - | - | - | - | - |
| Profit After Tax | 45 | 67 | 140 | 164 | 177 | 194 | 939 | 1,433 | 1,848 |
| Dividend | 17 | 25 | 31 | 33 | 33 | 33 | - | - | - |
| Surplus Retained | 7 | 13 | 109 | 131 | 144 | 161 | 939 | 1,433 | 1,848 |
| of which to | | | | | | | | | |
| - LTO Fund /1 | - | - | - | - | - | - | (470) | (1,000) | (1,400) |
| - Stabilization Fund /1 | - | - | - | - | - | - | ( 80) | ( 100) | ( 150) |
| **INDICATIVE RATIOS:** | | | | | | | | | |
| Interest Paid on Average Borrowings | 5.0% | 5.2% | 5.5% | 5.6% | 5.7% | 5.8% | 6.2% | 6.1% | 6.3% |
| Interest Earned on Average Loans | 6.3% | 6.5% | 6.7% | 6.7% | 6.6% | 6.5% | 7.7% | 6.8% | 6.9% |
| Average Spread on Borrowings | 1.3% | 1.3% | 1.2% | 1.1% | 0.9 | 0.7% | 1.5% | 0.7% | 0.6% |
| Interest Cost as % of Average Total Resources | 4.9% | 4.8% | 4.9% | 5.0% | 5.1% | 5.3% | 4.2% | 3.3% | 3.2% |
| Total Income as % of Total Assets | 6.6% | 6.5% | 6.6% | 6.7% | 6.7% | 6.8% | 7.5% | 6.6% | 6.9% |
| Average Spread on Total Resources | 1.7% | 1.7% | 1.7% | 1.7% | 1.6% | 1.5% | 3.3% | 3.3% | 3.7% |
| Profit (Before Tax) as % of: | | | | | | | | | |
| - Average Equity | 22% | 24% | 19% | 17% | 16% | 15% | 53% | 60% | 68% |
| - Average Total Assets | 1.2% | 1.4% | 1.3% | 1.3% | 1.1% | 1.0% | 2.8% | 2.9% | 3.3% |
| Staff and General Expenses as % of Average Total Assets | 0.4% | 0.3% | 0.4% | 0.4% | 0.5% | 0.4% | 0.5% | 0.4 | 0.4% |
| Debt/Equity /2 | 16.9:1 | 14.5:1 | 12.5:1 | 12.5:1 | 13.4:1 | 14.9:1 | 11.6:1 | 11.4:1 | 10.2:1 |

/1 See note on Summary Balance Sheets.
/2 Excluding Rural Credit Funds from both debt and equity.

# INDIA

## NABARD CREDIT PROJECT

### ARDC/NABARD Disbursements by Subsector (FY1980/81 - FY1984/85)
(Rs M)

| Purpose | ARDC | | | | NABARD | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Cumulative To 6/30/80 | % | 1980-81 | 1981-82 | 1982-83 | 1983-84 | 1984-85 | to 6/30/85 | % |
| Minor Irrigation | 11,296 | (65) | 2,650 | 2,523 | 2,445 | 3,120 | 3,350 | 25,384 | (46) |
| Land Development Reclamation/ Soil Conservation/Command Area Development | 660 | (4) | 129 | 107 | 208 | 290 | 430 | 1,824 | (3) |
| Farm Mechanization | 2,786 | (16) | 1,099 | 1,282 | 1,468 | 2,040 | 1,700 | 10,375 | (20) |
| IRDP | 39 | - | 132 | 979 | 1,854 | 2,330 | 3,540 | 8,874 | (16) |
| Plantation/Horticulture | 626 | (3) | 238 | 327 | 266 | 380 | 470 | 2,307 | (4) |
| Poultry/Sheep Breeding | 187 | (1) | 144 | 141 | 99 | 125 | /1 | 696 | (1) |
| Fisheries | 326 | (2) | 97 | 75 | 55 | 66 | /1 | 619 | (1) |
| Dairy Development | 300 | (2) | 114 | 196 | 139 | 130 | /1 | 879 | (2) |
| Storage & Market Yards | 1,067 | (6) | 156 | 92 | 126 | 90 | 120 | 1,651 | (3) |
| Forestry | 27 | - | 12 | 18 | 36 | 50 | 20 | 163 | - |
| Integrated Cotton Dev. | 97 | (1) | 64 | 67 | 124 | - | - | 352 | (1) |
| Others | 54 | - | 153 | 195 | 16 | 299 | 980 | 1,697 | (3) |
| Total | 17,465 | (100) | 4,988 | 6,002 | 6,836 | 8,920 | 10,610 | 54,821 | (100) |

/1 Included with "Others."

ANNEX 3
Table 4

# INDIA

## NABARD CREDIT PROJECT

### NABARD's Estimated Resource Position for Term Lending FY86/87 - 88/89
(Rs M)

| | | | | |
|---|---|---|---|---|
| **Resource Requirements /1** | | | | |
| Schematic Lending: | 1986/87 | 12,800 | | |
| | 1987/88 | 14,100 | | |
| | 1988/89 | 15,500 | 42,400 | |
| Non-Schematic Loans: | 1986/87 | 1,180 | | |
| | 1987/88 | 1,190 | | |
| | 1088/89 | 1,200 | 3,570 | |
| Repayment & Other Obligations: | 1986/87 | 1,210 | | |
| | 1987/88 | 1,060 | | |
| | 1988/89 | 1,530 | 3,800 | |
| Total Resource Requirements: | | | 49,770 | (100%) |
| **Likely Resources** | | | | |
| Repayments | | 20,250 | | |
| NABARD Profits | | 6,850 | | |
| Bonds | | 4,960 | | |
| Liquidation of Securities and Deposits | | 410 | 32,470 | (65.3%) |
| IDA - Ongoing Projects | | 250 | | |
| NABARD I ($340 M) | | 4,080 | | |
| West Germany (DM 55 M) | | 254 | | |
| Netherlands (Fl 17 M = $5.5 M) | | 66 | 4,650 | (9.3%) |
| RBI - Long Term Operations Fund | | | 11,750 | (23.6%) |
| | | | 48,870 | (98.2%) |
| Balance from additional bilateral funds | | | 900 | (1.8%) |
| and/or RBI/GOI | | | 49,770 | (100%) |

/1 Includes all needs, i.e. schematic lending, other loans, repayment and other obligations, but excluding short-term operations and STO fund operations for which there are separate "tied" resources available.

ANNEX 3
Table 5

# INDIA

## NABARD CREDIT PROJECT

### NABARD's Expected Refinancing Program FY86/87 - FY88/89
(Rs M)

| | 1986/86 | 1987/88 | 1988/89 | Total | % |
|---|---|---|---|---|---|
| **Schematic Lending** | | | | | |
| 1. Minor Irrigation | 3,700 | 4,070 | 4,480 | 12,250 | 26.6 |
| 2. Land Development | 360 | 400 | 440 | 1,200 | 2.6 |
| 3. Farm Mechanization | 2,050 | 2,250 | 2,480 | 6,780 | 14.7 |
| 4. IRDP | 4,380 | 4,820 | 5,300 | 14,500 | 31.5 |
| 5. Plantation/Horticulture | 570 | 630 | 690 | 1,890 | 4.1 |
| 6. Dairy Development | 290 | 320 | 350 | 960 | 2.1 |
| 7. Poultry/Sheep/Goat/Piggery | 270 | 300 | 330 | 900 | 2.0 |
| 8. Fisheries | 120 | 130 | 140 | 390 | 0.9 |
| 9. Storage and Market Yards | 130 | 140 | 150 | 420 | 0.9 |
| 10. Forestry | 40 | 40 | 50 | 130 | 0.3 |
| 11. Biogas | 110 | 120 | 130 | 360 | 0.8 |
| 12. Others | 780 | 880 | 960 | 2,620 | 5.7 |
| Total Schematic Loans | 12,800 | 14,100 | 15,500 | 42,400 | 92.2 |
| **Non-schematic Lending** | 1,180 | 1,190 | 1,200 | 3,570 | 7.8 |
| | 13,980 | 15,290 | 16,700 | 45,970 | 100 |

# INDIA

## NABARD CREDIT PROJECT

## Agricultural Credit Review

## Draft Terms of Reference

### I. OBJECTIVES OF THE REVIEW

1. The main objective of the Review will be to recommend a program to strengthen the entire agricultural credit system. The Review would make recommendations for: (i) remedies which can be implemented in the short-term to enhance the quality of lending; (ii) those remedial actions (particularly of a broader, organizational nature) which will take longer to implement; and (iii) solving problems affecting the long-term development of the credit system in the context of the changing pattern of credit requirements in agricultural and rural development.

2. In view of the complexity and size of the agricultural credit system in India and taking into account the intricate nature and sensitivity of the issues currently affecting the system, it has been decided to split the Review into five studies.

3. The five studies of the Review would focus on:

(i) broad questions pertaining to the role and operations of the agricultural credit system;

(ii) the role and effectiveness of individual lending institutions;

(iii) the scope of supervisory and regulatory functions of the apex-level in agricultural credit;

(iv) the costs of lending and margins; and

4. Prior to executing these studies, the consultants and senior experts should thoroughly familiarize themselves with the Indian agricultural credit system, specifically those reports listed in the Bibliography to these Terms of Reference.

5. Timetable. A tentative timetable for the activities to be undertaken as part of the Review and suggested key data concerning selection and appointment of senior experts and consultants, commencement of activities and completion of reports are indicated below.

Senior Expert Group (SEG)

| | |
|---|---|
| Shortlist completed | June 1986 |
| Selection of members | August 1986 |
| Appointment of members | September 1986 |
| First meeting SEG | November 1986 |
| Completion of draft report | August 1988 |
| Receipt of comments by GOI and the Bank Group | October 1988 |
| Completion final report | December 1988 |

Review Studies I to IV

| | |
|---|---|
| Advertisement in Development Forum | May 1986 |
| Shortlist and invitation for proposals | July 1986 |
| Selection of consultants | September 1986 |
| Completion of contract negotiations | November 1986 |
| Start of activities in India | January 1987 |
| Interim report | May 1987 |
| Completion of draft report | August 1987 |
| Completion of final report | November 1987 |

Review Study V

| | |
|---|---|
| Shortlist and invitation for proposals | September 1986 |
| Selection of consultants | November 1986 |
| Completion of contract negotiations | April 1987 |
| Start of activities in India | June 1987 |
| Interim report | October 1987 |
| Completion of draft report | March 1988 |
| Completion of final report | July 1988 |

## II. SENIOR EXPERT GROUP (SEG)

5. Objectives. The objective of the SEG is to evaluate the major problems and issues currently affecting the agricultural credit system, as outlined in the five Review studies, and to make recommendations for a program to strengthen the sector.

6. Detailed Terms of Reference. The main task of the SEG will be to prepare an integrated report for the strengthening of the Indian agricultural credit system, which will contain recommendations and an implementation timetable for the carrying out of the proposals. The SEG's other duties will include, but not be restricted to:

(i) Guiding and monitoring the implementation of the Review studies including the general format of the consulting groups' working plans and agreed timetables; assist them whenever possible in obtaining the requisite information and the cooperation of all those concerned with the Review.

(ii) Reviewing and commenting upon consultants' interim and draft reports and ensuring that prior to finalization, such reports are made available to GOI, RBI and the Bank for their comments. Following review of interim reports, SEG should recommend appropriate changes in work programs, where necessary, to RBI and discuss these changes in review meetings.

(iii) Organizing review meetings with consulting groups.

(iv) Familiarizing itself with the issues that have dominated agricultural credit over the past 20 years.

(v) Addressing the broad questions affecting the agricultural credit system, including but not limited to those concerning:

   (a) the future role of the credit system in view of Government plans for development of the agriculture sector;

   (b) future resource requirements of agricultural credit; and how they can be satisfied;

   (c) the structure of the agricultural credit system, and the roles of its major components;

   (d) control and supervision of the agricultural credit system;

   (e) the role of lending margins and their impact on agricultural credit;

   (f) improved recovery of agricultural loans;

   (g) the financial position of financial institutions, including desirable levels of reserves; and

   (h) recruitment and training of staff of financial institutions.

(vi) Undertaking such activities as it deems necessary to reach a thorough understanding of the agricultural credit system.

Study I: AGRICULTURAL CREDIT IN GENERAL

7. Objective. The objective of this study is to examine the role and operations of the entire agricultural credit system within the broader context of India's development and to make recommendations to enable the system to enhance credit quality, strengthen efficiency and effectiveness, and improve loan recovery.

8. Detailed Terms of Reference. The study should assess how, within the framework of India's current poverty alleviation and development policies, the role of the agricultural credit system should evolve; and which factors will have impact on its efficiency, effectiveness, and institutional integrity. Specifically, the study will assess the volume of future flows of funds into and out of agriculture sector, the effectiveness of schematic and special program lending within agriculture, the effect of lending targets, the role of subsidies, and the impact of loan recovery on the financial position of credit institutions. The consultants will examine the following issues pertaining to the role and operations of the entire agricultural credit system:

(i) assess the effect of agricultural interest rates on demand, recoveries, and mobilization of deposits.

(ii) review the present and future likely requirements for resources for investment in different subsectors and the agricultural credit system's overall role in mobilizing and allocating resources among subsectors.

(iii) requirements for short- and long-term agricultural credit. The impact of financial variables and the changing pattern of agricultural investments would be included.

(iv) the role of agricultural credit in India; the linkages and inter-relationships between credit and subsidies; and how the special needs of certain subsectors of the community or certain regions can be met by subsidies or grants without detriment to the credit system; and what safeguards are needed when the credit system must be used as the conduit or agent of such special schemes.

Within the context of these general issues, the following should be investigated:

(a) What is the role of direct subsidies in agriculture, and what is their effect on agricultural production and credit? How do subsidies affect credit operations, repayment discipline, and the selection of investments to be financed?

(b) What is the magnitude and impact of special poverty alleviation programs and disaster relief programs on agricultural credit operations? How can the effectiveness, efficiency and control of these programs be improved, and what role should the banking system play in these programs?

(v) Assess the effect of the imposition of lending targets and/or quotas on credit operations. Review the reasons for targetting by various agencies and investigate whether alternative arrangements would be feasible and desirable. In this respect, review the role and effectiveness of district credit plans, their formulation and objectives and recommend how their effectiveness could be enhanced.

(vi) Review how the granting of credit and control over subsequent repayments can be shielded from outside pressures (e.g., non-credit related interference at various levels). Assess the feasibility and impact of the proposed measures.

vii) Assess the effect of current levels of overdues of cooperative banks, regional rural banks and commercial banks on their financial position and review how these overdue levels affect credit discipline and institutional and financial integrity. Review policies and other measures which would enhance recovery.

(viii) Examine the role of extension services, marketing organizations, and block development services that support credit operations, and propose how their roles could be enhanced.

Study II: THE ROLE AND EFFECTIVENESS OF LENDING INSTITUTIONS

9. Objective. The objective of this study will be to review the role and effectiveness of lending institutions engaged in the provision of agricultural credit and to make proposals and recommendations for such changes as appropriate, to establish a sound and viable credit system and institutions, which will be able to adequately provide service to the rural population.

10. Within the context of the Review, this study will be particularly complex, because it would deal with a multitude of agricultural credit institutions. To keep the study within manageable proportions, it will focus on a sample, including the number of branches of Land Development Banks (LDBs), Regional Rural Banks (RRBs), Commercial Banks (CBs), State Cooperative Banks (SCBs) and District Central Cooperative Banks (DCCBs). The number of banks in the sample would be as follows: LDBs - 8, RRBs - 10, CBs - 6 1/, SCBs - 6, and DCCBs- 10. In addition, the study would analyze the operations of a sample of 30 Primary Agricultural Credit Societies (PACs). The final selection of the sample will be made prior to the start of the study by

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1/ The review would only deal with the agricultural operations of the CBs.

the consultants in consultation with RBI, and take into account that: (i) the sample represents all major regions and agricultural systems; and (ii) the sizes of banks selected largely reflect the current size distribution of all banks.

11. Detailed Terms of Reference. The main focus of this study would be on the operations of agricultural credit institutions, and how the quality of lending operations and financial services to the farmers could be improved. Specifically the study would:

(i) Analyze the present role played by the short-term cooperative credit institutions (PACs, DCCBs, SCBs), other cooperative banks (LDBs), and departments or divisions in charge of agricultural operations in CBs and RRBs; examine their inter-relationships and methods of operation, particularly at the "grass roots" level.

(ii) Examine the effectiveness and efficiency of each group of institutions including: (a) their financial structure and viability; (b) administration, personnel, training and managerial systems; and (c) branch expansion policies, taking into account the experience gained by the pilot scheme. 1/

(iii) Following such analysis, make recommendations concerning the future role, structure, and functions of the cooperative credit institutions, RRBs, and agricultural credit operations of CBs.

(iv) Examine the staffing and training requirements of credit institutions at all levels; assess the training capacity and capabilities presently available; paying particular attention to the appropriateness of the training being given in relation to the needs, particularly at the grass roots level, and make proposals on how the various groups of banks' training activities should be strengthened to satisfy future requirements over a five-year period, and who should be responsible for ensuring training quality; examine the availability of specialist staff for recruitment, and recruitment procedures; examine the implications of current employment practices on credit institutions.

(v) Analyze loan recovery profiles for each group of banks, including overdues by age and bad debts with proposals as to how they should be dealt with. Review current methods to estimate bad debts and how bad debt is dealt with, and examine current NABARD guidelines dealing with bad debts.

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1/ The pilot scheme, executed by NABARD attempts to improve credit delivery at the grass roots level by instituting regular visits by Bank staff to farmers, training activities, and improved management practices.

(vi) Analyze the root causes of overdues, ascertaining whether they are attributable to lending policies, staff shortages, faulty technology, outside interference etc., and make proposals for overcoming the problems.

(vii) Examine the existing methods for debt rescheduling, including those under calamity conditions, and make recommendations for any changes required.

(viii) Investigate the methods and legal aspects of loan recovery, particularly the effectiveness of present collateral arrangements; review whether the insistence of some banks upon legal mortgage over land is necessary or effective; and determine what are the legal impediments, if any, to using direct methods of loan recovery, such as stoppages from salaries or wages and compulsory stop orders on crop proceeds from such sources as ginneries, coffee factories and other marketing organizations; is the concept of joint liability by lending through associations and farmers' clubs pursued, are legal delays through the courts an impediment to loan recoveries and are they too costly; what is the role and impact of the credit insurance scheme of the Deposit Insurance and Credit Guarantee Corporation (DICGC), particularly on CBs and RRBs; what will be the impact of bad debt claims on the future financial position of DICGC; and, having considered all aspects of this subject, make proposals for such changes in the system as are deemed appropriate.

(ix) Review the effectiveness of the concept of "lead bank" particularly with respect to the IRDP program and formulation of district credit plans.

(x) Review current policies and practices with respect to branch expansion and assess their effect on lending efficiency and the effectiveness of credit delivery.

Study III: <u>THE ROLE AND FUNCTIONS OF THE APEX LEVEL IN AGRICULTURAL CREDIT</u>

12. <u>Objective</u>. The objective of this study will be to define and clarify the roles and functions of the apex-level institutions within the agricultural credit framework, their relationship to each other, and their relationship to their client financial institutions.

13. <u>Detailed Terms of Reference</u>. This study aims at assessing the most desirable role for the apex-level, and what steps are required for the apex-level to assume and execute such role. Specifically, the study should focus on the following subjects:

(i) Analyze the role and functions of the apex-level in agricultural credit, including, but not limited to: (a) financing and refinancing;

(b) the supervision and control of loans made by all lending institutions engaged in agricultural credit; (c) institutional performance; (d) monitoring and guiding training activities; and (e) the planning and implementation of national and State policies.

(ii) Assess the current role and influence of the apex-level in the policy making process at the Central and State Government level, and analyze what role each should play in the development and implementation of agricultural credit policies.

(iii) Assess the methods by which the apex-level reviews and controls the financial integrity of its client banks, particularly cooperative credit institutions. Review how current eligibility criteria affect the financial position of banks.

(iv) Review the effectiveness of the present system of schematic and non-schematic lending and refinancing of term loans and assess whether and how improvements could be made.

(v) Propose monitoring and control mechanisms which will ensure that the credit system is properly managed, lending is effective, and recoveries maintained at acceptable levels. In this respect, the question of eligibility criteria for institutions to participate in agricultural lending must be fully investigated, whether such criteria are effective and how they can be enforced, and make proposals for changes in the existing criteria system if deemed necessary. Recommend methods for maintaining up-to-date data on overdues, including statistics by lending categories and age of overdues.

(vi) Examine institutional accounting systems, including those at the field level, and make recommendations for improvements. Determine what steps are needed to quicken the introduction of computer technology. Analyze the need for generating accurate and meaningful data on lending at the lower institutional level; assess what type of data are required at higher levels to maintain overall control over agricultural credit.

(vii) Determine the role of the apex-level in enhancing the quality, effectiveness, and volume of staff training activities of its client banks.

(viii) Having considered the above questions, formulate broad recommendations concerning the future role, objectives, and functions of NABARD, paying particular attention to:

(a) its capital structure and sources of funds;

(b) the adequacy and effectiveness of its legal mandate and its effectiveness in enforcing directives and guidelines;

(c) its role, functions and relationships with other national and State-level institutions involved in agricultural credits, including an analysis about the delineation of responsibilities;

(d) its relationship with other lending institutions (particularly CBs) and State Governments including an analysis of its responsibilities concerning: (i) bank inspections; and (ii) monitoring and evaluation of agricultural lending operations, institutional performance of financial institutions, and their financial position.

(e) how effectively and efficiently to ensure improvements in the quality of lending operations of institutions, including improvements in technical standards, management, and operational practices; and

(f) how to ensure and enforce appropriate staffing and staff training in individual credit institutions.

Study IV: LENDING COSTS AND MARGINS

14. Objective. The objective of this study is to assess whether currently available lending margins are sufficient, in comparison to the costs of lending operations in agricultural credit and, if not, to give recommendations to improve the situation.

15. Some of the main points which must be considered are listed below, but others may well arise during the review and should not be excluded. The aim of the review is to develop proposals for lending costs, and margins to ensure the proper functioning of an efficient credit system. The proposals should allow for adjustments which may be required from time to time in light of changes in the costs of resources, reserve requirements, etc.

16. Of relevance are the staffing needs and staff training facilities required for lending institutions, the critical overdues situation, and an assessment of bad debts. Allowance must be made for increases in staff and training facilities and bad debt reserves that may be recommended under Study II. (The Role and Effectiveness of Lending Institutions).

17. Another important aspect to be borne in mind is increasing CB participation in agricultural credit operations and the rapidly growing percentage of small loans provided under poverty alleviation schemes by CBs and RRBs.

18. A considerable amount of work has already been done on these subjects in the past by RBI and NABARD and considerable data are available which will need to be updated. The consultants would use the same sample of financial institutions as detailed in para 10 above to provide data for this study.

19. Detailed Terms of Reference. The study should:

(i) estimate the costs of lending for the various groups of lending institutions which will take account of:

(a) the type of lending e.g. short-, medium- and long-term, whether secured or unsecured, the purposes for which the funds are lent, whether many small loans are involved, and what degree of technical and other supervision will be required;

(b) the risks involved in various types of lending, in particular, the effectiveness or otherwise of collateral and the reserve requirements to protect the financial viability of institutions;

(c) the costs of raising funds internally and from other sources;

(d) the costs of overdues and bad debts in terms of reduced liquidity and costs of collection, taking into account the role of the credit insurance scheme of the Deposit Insurance and Credit Guarantee Corporation; and

(e) administration costs at all levels, taking into account the paramount importance of adequate supervision, particularly technical supervision, at the field level.

(ii) review how institutions are currently meeting those costs; are they being subsidized directly or indirectly and whether these arrangements are satisfactory or should be modified. In addition, the study should review the level of DICGC fees and who should pay them;

(iii) examine the present margins being obtained from various institutions; review whether such margins do provide adequate incentives for banks to lend effectively;

(iv) review whether current NABARD margins are appropriate in the light of NABARD's estimates of future lending and operating costs, taking into account NABARD's likely costs of funds;

(v) in light of conclusions reached from (i), (ii), (iii) and (iv) above, make recommendations for appropriate margins.

Study V: ORGANIZATION AND MANAGEMENT STUDY OF NABARD

20. Objective. The objective of the study is to prepare a set of recommendations and a timetable to strengthen NABARD's operations to make it a more effective apex institution for agricultural credit.

21. Study Implementation. The study will start about eight months after the other four studies have commenced. Its recommendations should be divided into two parts: (i) the long-term reforms required, and (ii) those which can be introduced immediately. The study should also take into account the results of improvements made during the proposed NABARD I project in NABARD's organization and operations.

22. Detailed Terms of Reference. The study should address:

(i) the staffing of NABARD, including managerial positions; are staff and training adequate at all levels and if not, what is required to remedy the situation as rapidly as possible; is delegation of authority and the use of discretionary powers effectively used and are personnel policies adequate;

(ii) arising out of (i) above, what is the adequacy of staff training facilities both external and in-service; is training appropriate to functions performed; if training is inadequate, how can it be improved, not only in the long-term, but in the short-term;

(iii) in view of the recommendations of the four other studies concerning the role and functions of NABARD, are NABARD's organization, operational and administrative guidelines and manuals, working methods, and management structure and management practices appropriate, and if not, how should they be adjusted. Specifically, the study should review:

   (a) NABARD's accounting and data processing systems, and make recommendations for the introduction of a computer system;

   (b) NABARD's management information requirements and how they would be satisfied;

   (c) NABARD's operational procedures for appraisal of individual investments and schemes; how can the quality of NABARD appraisals, including technical and financial evaluation be improved and made more effective; and how can control systems be set up to assure adherence to NABARD guidelines, conditions of disbursement, and eligibility criteria;

(d) NABARD's procedures for updating guidelines for investment costs, repayment schedules, and working capital requirements. How could they be made more up-to-date, flexible, and area specific; and

(e) the functions and operations of NABARD's regional offices; and

(f) the effectiveness of NABARD's organization structure and suggest changes where necessary.

(iv) the effectiveness of NABARD's monitoring and evaluation systems, both for its own activities and for those investments it refinances. How can the effectiveness of monitoring and evaluation operations and follow-up be improved;

(v) the quality and effectiveness of NABARD's inspection operations. How should inspections be enforced, and how should their findings be used in the general operations of NABARD;

(vi) the quality and effectiveness of NABARD's participation and supervision of lending operations and credit planning at State, district and block levels. How should directives be enforced and how should effective NABARD participation in credit planning be ensured. Specifically, NABARD's functions with respect to IRDP should be strengthened and improvements recommended;

(vii) the capacity of NABARD to guide, monitor and evaluate efforts to strengthen the institutional framework and lending operations of financial institutions it refinances, or those requiring rehabilitation;

(viii) NABARD's role and capacity to monitor training activities of its client banks, and advise financial institutions on their training needs, training organization and effectiveness and efficiency of training activities; and

(ix) how the recommendations developed above to strengthen NABARD's operations, should be implemented, and what assistance, if any, NABARD should receive.

# INDIA

## NABARD CREDIT PROJECT

### Analysis of LDB Demand and Recovery (1981/82 - 1983/84)

(Rs M)

| | 1981/1982 | | | 1982/1983 | | | 1983/1984 | | |
|---|---|---|---|---|---|---|---|---|---|
| | Net Demand /1 | Total Recovery /1 | % | Net Demand /1 | Total Recovery /1 | % | Net Demand /1 | Total Recovery /1 | % |
| Uttar Pradesh | 991.4 | 655.0 | (66.1) | 1,010.3 | 668.1 | (66.1) | 1,045.8 | 752.0 | (71.9) |
| Andhra Pradesh | 815.6 | 497.6 | (61.0) | 919.9 | 468.3 | (50.9) | 1,100.2 | 604.1 | (54.9) |
| Maharashtra | 788.4 | 458.4 | (58.1) | 831.6 | 455.8 | (54.8) | 853.7 | 432.1 | (50.6) |
| Tamil Nadu | 499.9 | 244.2 | (48.8) | 411.8 | 194.9 | (47.3) | 439.5 | 234.1 | (53.3) |
| Karnataka | 414.3 | 245.8 | (59.3) | 431.0 | 279.6 | (64.9) | 457.0 | 299.1 | (65.4) |
| Madhya Pradesh | 411.0 | 242.5 | (59.0) | 426.9 | 249.8 | (58.5) | 409.4 | 233.6 | (57.1) |
| Punjab | 328.2 | 293.2 | (89.3) | 415.1 | 371.4 | (89.5) | 497.0 | 279.8 | (56.3) |
| Haryana | 324.6 | 261.0 | (80.4) | 388.9 | 287.1 | (73.8) | 451.5 | 344.0 | (76.2) |
| Bihar | 313.6 | 169.6 | (54.1) | 411.4 | 166.0 | (40.4) | 414.6 | 177.0 | (42.7) |
| Rajasthan | 261.6 | 155.5 | (59.4) | 315.1 | 175.9 | (55.8) | 373.3 | 212.1 | (56.8) |
| Gujarat | 242.3 | 174.3 | (71.9) | 154.0 | 154.0 | (56.0) | 373.4 | 192.2 | (51.5) |
| West Bengal | 187.4 | 63.0 | (33.6) | 196.5 | 81.0 | (41.2) | 188.8 | 95.2 | (50.4) |
| Orissa | 143.8 | 72.8 | (50.6) | 171.3 | 70.5 | (41.2) | 134.4 | 97.5 | (72.5) |
| Kerala | 118.9 | 98.0 | (82.4) | 147.2 | 114.5 | (77.8) | 175.7 | 141.3 | (80.4) |
| Jammu and Kashmir | 14.9 | 8.1 | (54.4) | 15.2 | 6.7 | (44.1) | 16.9 | 8.6 | (50.9) |
| Assam | 9.5 | 3.0 | (31.6) | 12.3 | 4.2 | (34.1) | 18.0 | 6.7 | (37.2) |
| Himachal Pradesh | 9.5 | 5.0 | (52.6) | 10.2 | 5.4 | (52.9) | 9.5 | 6.9 | (72.6) |
| Tripura | 2.9 | 0.9 | (31.0) | 4.8 | 1.3 | (27.1) | 6.2 | 1.2 | (19.4) |
| Pondicherry | 4.2 | 1.4 | (33.3) | 3.8 | 1.0 | (26.3) | 4.1 | 2.0 | (48.8) |
| | 5,882.0 | 3,649.3 | (62.0) | 6,398.5 | 3,755.5 | (58.7) | 6,969.0 | 4,119.5 | (59.1) |

/1 Net Demand excludes loans rescheduled and/or transferred to "Blocked Accounts" and Total Recovery includes payments by State Governments against demand as follows:

| | 1981/1982 | | 1982/1983 | | 1983/1984 | |
|---|---|---|---|---|---|---|
| | Amounts Rescheduled or Blocked | Recoveries from State Govt | Amounts Rescheduled or Blocked | Recoveries from State Govt | Amounts Rescheduled or Blocked | Recoveries from State Govt |
| Uttar Pradesh | 43.7 | - | 86.0 | - | 32.2 | |
| Maharashtra | 225.0 | 36.9 | 168.9 | 118.0 | 180.8 | 123.3 |
| Tamil Nadu | - | 57.6 | 101.1 | 80.8 | 29.1 | 65.4 |
| Karnataka | - | 6.5 | 35.4 | 92.6 | 20.2 | 100.7 |
| Madhya Pradesh | 11.4 | 23.3 | 24.0 | 14.4 | 59.6 | - |
| Haryana | 13.6 | - | 15.6 | - | - | - |
| Bihar | 91.3 | - | 77.5 | - | - | - |
| Gujarat | 479.3 | 37.4 | 45.3 | 24.0 | - | 36.3 |
| West Bengal | - | - | 24.6 | - | 45.6 | - |
| Himachal Pradesh | - | - | - | - | 3.1 | - |
| | 864.3 | 161.7 | 578.4 | 329.8 | 370.6 | 325.7 |

Indicative Ratios (for All-India):

| | 1981/1982 | 1982/1983 | 1983/1984 |
|---|---|---|---|
| Amounts rescheduled/transferred to blocked accounts as % of Gross Demand | 12.8% | 8.3% | 5.0% |
| Payments by State Govt as % of Total Recoveries | 4.4% | 8.8% | 7.9% |
| Net Cash Recovery from Borrowers as % of Gross Demand | 51.7% | 49.1% | 51.7% |

ANNEX 5
Table 2

# INDIA

## NABARD CREDIT PROJECT

### Summary of Land Development Bank Recoveries (1974-1984) /1

| Position as of June 30 | 1974 | 1975 | 1976 | 1977 | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 | 1984 (provisional) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | percent | | | | | | | | | | |
| **I. State LDB (with unitary structure)** | | | | | | | | | | | |
| Bihar | 66.4 | 66.4 | 65.2 | 42.0 | 58.2 | 40.5 | 23.4 | 74.2 | 54.1 /2 | 40.4 /2 | 42.7 |
| Gujarat | 54.6 | 27.6 | 43.7 | 36.8 | 31.3 | 25.3 | 21.0 | 23.7 | 71.9 /2 | 56.0 /2 | 51.5 /2 |
| Himachal Pradesh | 43.9 | 41.3 | 50.0 | 36.2 | 42.4 | 27.1 | 37.5 | 51.1 | 52.6 | 52.9 | 72.6 |
| Jammu and Kashmir | 69.8 | 67.3 | 61.9 | 53.1 | 61.6 | 50.4 | 50.0 | 52.2 | 54.4 | 44.1 | 50.9 |
| Maharashtra | 55.5 | 41.5 | 39.5 /2 | 37.2 | 42.4 | 80.6 /2 | 53.8 | 34.7 | 58.1 /2 | 54.8 /2 | 50.6 /2 |
| Pondicherry | - | - | - | - | - | 43.7 | 58.8 | 54.2 | 31.0 | 66.1 | 19.4 |
| Tripura | - | - | - | - | - | - | - | - | 33.3 | 27.1 | 48.8 |
| Uttar Pradesh | 77.3 | 75.0 | 83.1 | 76.1 | 73.3 | 72.4 | 75.3 | 70.0 | 66.1 | 26.3 | 71.9 /2 |
| Weighted Average | 61.1 | 47.3 | 50.6 | 48.0 | 47.6 | 57.4 | 46.2 | N.A. | 62.2 | 56.9 | 57.7 |
| **II. Primary LDBs** | | | | | | | | | | | |
| Andhra Pradesh | 78.0 | 78.0 | 74.8 | 71.0 | 72.6 | 66.6 | 70.0 | 57.9 | 61.0 | 50.9 | 54.9 |
| Assam | 22.2 | 22.2 | 37.5 | 44.1 | 44.1 | 48.8 | 31.6 | 35.1 | 31.6 | 34.1 | 37.2 |
| Haryana | 99.6 | 98.2 | 97.9 | 96.8 | 89.1 | 91.6 | 89.8 | 90.0 | 80.4 /2 | 73.8 /2 | 76.2 |
| Karnataka | 62.0 | 59.9 | 58.1 | 46.6 /2 | 48.0 | 52.0 /2 | 54.8 | 47.3 | 59.3 | 64.9 /2 | 65.4 /2 |
| Kerala | 60.8 | 70.9 | 70.9 | 76.5 | 81.8 | 81.7 | 80.5 | 84.2 | 82.4 | 77.8 | 80.4 |
| Madhya Pradesh | 52.1 | 53.1 | 59.0 | 46.5 | 52.1 | 43.8 | 32.6 | 50.0 | 59.0 /2 | 58.5 /2 | 57.1 |
| Orissa | 50.0 | 43.1 | 68.0 | 46.9 | 67.2 | 57.2 | 39.6 | 60.5 | 50.6 | 41.2 | 72.5 |
| Punjab | 85.0 | 83.0 | 89.2 | 77.9 | 80.5 | 87.3 | 87.2 | 88.8 | 89.3 | 89.5 | 56.3 |
| Rajasthan | 54.5 | 63.4 | 73.4 | 64.2 | 60.0 | 62.5 | 46.6 | 58.9 | 59.4 | 55.8 | 56.8 |
| Tamil Nadu | 78.8 | 60.2 | 63.6 | 51.6 /2 | 27.8 /2 | 19.2 /2 | 11.3 | 33.6 | 48.8 | 47.3 /2 | 53.3 /2 |
| West Bengal | 58.8 | 70.8 | 78.5 | 77.2 | 72.3 | 62.1 | 62.7 | 41.3 | 56.4 | 41.3 /2 | 50.4 /2 |
| Weighted Average | 62.8 | 69.5 | 72.2 | 62.8 | 58.6 | 53.3 | 48.3 | N.A. | 61.9 | 59.9 | 60.0 |

/1 Expressed as percentage of demand (principal and interest falling due during the year plus overdues from previous years).

/2 After rescheduling during the year.

ANNEX 5
Table 3

# INDIA

## NABARD CREDIT PROJECT

### Recovery Performance of LDB Branches (as of 6/30/84)

| LDB | Total No. of Branches | Number of Branches with Recovery | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Over 75% | | 60 - 74% | | 40 - 59% | | Less than 40% | |
| | | No. | (%) | No. | (%) | No. | (%) | No. | (%) |
| Bihar | 164 | 19 | (12) | 25 | (15) | 62 | (38) | 58 | (35) |
| Gujarat | 182 | 14 | (8) | 24 | (13) | 46 | (25) | 98 | (54) |
| Karnataka | 177 | 72 | (41) | 59 | (33) | 33 | (19) | 13 | (7) |
| Maharashtra | 323 | 68 | (21) | 56 | (17) | 59 | (18) | 140 | (44) |
| Madhya Pradesh | 45 | 5 | (11) | 22 | (49) | 13 | (29) | 5 | (11) |
| Orissa | 54 | 31 | (57) | 13 | (24) | 9 | (17) | 1 | (2) |
| Tamil Nadu | 183 | 54 | (29) | 31 | (17) | 56 | (31) | 42 | (23) |
| West Bengal | 24 | 10 | (42) | 1 | (4) | 5 | (21) | 8 | (33) |
| Uttar Pradesh | 254 | 132 | (52) | 68 | (27) | 38 | (15) | 16 | (6) |
| | 1,406 | 405 | (29) | 299 | (21) | 321 | (23) | 381 | (27) |

ANNEX 5
Table 4

# INDIA

## NABARD CREDIT PROJECT

### Recovery Status of RRBs as of 6/30/83

| State | No of RRBs | Total Advances Outstanding | | Total No. of Branches | | Number of Branches with Recovery | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Rs M | % | No. | % | Over 75% | 65 - 74% | 55 - 64% | Less Than 55% |
| Andhra Pradesh | 12 | 652 | (10.5) | 520 | (7.6) | 70 | 172 | 150 | 128 |
| Assam | 5 | 71 | (1.1) | 137 | (2.0) | - | 25 | 112 | - |
| Bihar | 17 | 805 | (12.9) | 1,253 | (18.4) | - | 70 | 105 | 1,078 |
| Gujarat | 4 | 30 | (0.5) | 88 | (1.3) | - | 38 | 4 | 46 |
| Haryana | 2 | 160 | (2.6) | 149 | (2.2) | - | - | 82 | 67 |
| Himachal Pradesh | 1 | 48 | (0.8) | 72 | (1.1) | - | - | - | 72 |
| Jammu & Kashmir | 3 | 65 | (1.0) | 177 | (2.6) | - | 49 | 65 | 63 |
| Karnataka | 8 | 571 | (9.2) | 465 | (6.8) | 170 | - | 132 | 163 |
| Kerala | 2 | 425 | (6.8) | 226 | (3.30 | - | 119 | 107 | - |
| Madhya Pradesh | 18 | 362 | (5.8) | 559 | (9.7) | 22 | 233 | 156 | 248 |
| Maharashtra | 3 | 108 | (1.7) | 125 | (1.8) | 5 | - | - | 120 |
| Manipur | 1 | 2 | - | 5 | (0.1) | 5 | - | - | - |
| Meghalaya | 1 | - | - | 6 | (0.1) | 6 | - | - | - |
| Nagaland | 1 | - | - | - | - | - | - | - | - |
| Orissa | 9 | 665 | (10.7) | 510 | (7.5) | 56 | 27 | 74 | 353 |
| Punjab | 3 | 1 | - | 3 | - | 3 | - | - | - |
| Rajasthan | 9 | 478 | (7.6) | 388 | (5.7) | 128 | 34 | 2 | 224 |
| Tamil Nadu | 1 | 182 | (2.9) | 108 | (1.6) | - | - | 108 | - |
| Tripura | 1 | 119 | (1.9) | 51 | (0.7) | - | - | - | 51 |
| Uttar Pradesh | 33 | 1,163 | (18.7) | 1,429 | (21.0) | 37 | 204 | 237 | 951 |
| West Bengal | 8 | 330 | (5.3) | 441 | (6.5) | - | 76 | - | 365 |
| | 142 | 6,237 | 100 | 6,812 | 100 | 502 | 1,047 | 1,334 | 3,929 |

ANNEX 5
Table 5

INDIA

NABARD CREDIT PROJECT

Recovery of Agricultural Loans of Commercial Banks by Region/State /1 (1975-1981)

| Position as of June 30 | 1975 | 1976 | 1977 | 1978 | 1979 | 1980 | 1981 |
|---|---|---|---|---|---|---|---|
| | percent of demand /2 | | | | | | |
| Northern Region | 55.7 | 59.3 | 59.8 | 64.7 | 66.0 | 68.9 | 64.2 |
| Haryana | 66.2 | 66.4 | 66.0 | 67.9 | 65.7 | 66.3 | 58.7 |
| Himachal Pradesh | 57.1 | 51.8 | 40.4 | 46.8 | 44.3 | 54.5 | 43.6 |
| Jammu and Kashmir | 46.0 | 42.3 | 48.1 | 62.6 | 47.5 | 48.5 | 48.4 |
| Punjab | 64.8 | 69.9 | 71.5 | 76.4 | 79.3 | 80.7 | 76.7 |
| Rajasthan | 46.5 | 50.3 | 49.5 | 50.0 | 50.7 | 52.8 | 46.1 |
| Northeastern Region | 32.3 | 35.9 | 32.5 | 34.0 | 31.8 | 31.2 | 31.9 |
| Assam | 25.4 | 30.2 | 34.4 | 29.8 | 26.8 | 25.3 | 22.8 |
| Manipur | 39.6 | 35.1 | 8.7 | 30.1 | 30.9 | 23.9 | 36.9 |
| Nagaland | 13.0 | 81.1 | 61.7 | 26.2 | 51.3 | 56.6 | 60.3 |
| Tripura | 51.9 | 54.7 | 38.4 | 69.2 | 46.2 | 46.2 | 51.5 |
| Eastern Region | 37.2 | 39.8 | 40.4 | 39.2 | 38.2 | 35.5 | 34.1 |
| Bihar | 40.2 | 45.7 | 40.6 | 35.8 | 31.7 | 35.5 | 37.8 |
| Orissa | 47.8 | 41.8 | 41.2 | 41.8 | 45.5 | 44.7 | 34.9 |
| West Bengal | 31.6 | 33.7 | 28.5 | 40.9 | 39.8 | 31.3 | 30.3 |
| Central Region | 49.8 | 53.7 | 52.5 | 50.6 | 50.9 | 48.2 | 51.1 |
| Madhya Pradesh | 45.1 | 45.8 | 43.5 | 38.9 | 38.3 | 37.8 | 43.0 |
| Uttar Pradesh | 52.2 | 57.8 | 56.4 | 56.5 | 57.1 | 53.5 | 54.9 |
| Western Region | 39.8 | 40.4 | 37.6 | 39.2 | 43.5 | 44.5 | 48.9 |
| Gujarat | 42.0 | 41.4 | 42.2 | 40.2 | 49.6 | 48.6 | 52.0 |
| Maharashtra | 38.4 | 39.5 | 34.9 | 37.9 | 39.7 | 42.0 | 47.3 |
| Goa, Daman and Diu | 72.3 | 69.9 | 59.5 | 76.3 | 69.2 | 58.1 | 48.8 |
| Southern Region | 61.9 | 59.6 | 55.1 | 55.3 | 57.5 | 54.5 | 55.8 |
| Andhra Pradesh | 66.7 | 65.3 | 55.2 | 57.9 | 60.5 | 54.0 | 53.2 |
| Karnataka | 54.0 | 53.9 | 51.7 | 47.4 | 49.2 | 50.7 | 50.8 |
| Kerala | 74.1 | 71.3 | 68.0 | 68.4 | 71.1 | 68.3 | 69.1 |
| Tamil Nadu | 54.7 | 51.1 | 51.4 | 53.0 | 54.6 | 53.1 | 58.2 |
| All-India | 51.6 | 51.9 | 50.0 | 51.2 | 53.1 | 52.1 | 52.9 |

/1 Information refers to all scheduled Commercial Banks.

/2 CB overdues are calculated on the basis of short and long-term credits.

# INDIA

## NABARD CREDIT PROJECT

### Demand and Collection of Agriculture Loans of Commercial Banks (1979-1982)
(Rs M)

| | | Demand | Collections | Recovery as % of Demand |
|---|---|---|---|---|
| 1979: | Short-term | 5,624 | 3,316 | 59.0 |
| | Term Loans | 4,457 | 2,039 | 45.8 |
| | Total | 10,081 | 5,355 | 53.1 /1 |
| 1980: | Short-term | 6,269 | 3,682 | 58.7 |
| | Term Loans | 5,638 | 2,597 | 46.1 |
| | Total | 11,907 | 6,279 | 52.7 /1 |
| 1981: | Short-term | 7,894 | 4,636 | 58.7 |
| | Term Loans | 7,546 | 3,534 | 46.8 |
| | Total | 15,440 | 8,170 | 52.9 |
| 1982: | Short-term | 8,794 | 5,153 | 58.6 |
| | Term Loans /2 | 9,323 | 4,368 | 46.9 |
| | Total | 18,117 | 9,521 | 52.6 |

/1 Age-Analysis of Total Overdues (Demand - Recovery)

| | 1979 | | 1980 | |
|---|---|---|---|---|
| | Amt. | % | Amt. | % |
| Less than 1 year | 1,591 | (34) | 1,801 | (32) |
| 1 - 2 years | 1,045 | (22) | 1,238 | (22) |
| 2 - 3 years | 727 | (15) | 844 | (15) |
| over 3 years | 1,363 | (29) | 1,745 | (31) |
| | 4,726 | (100) | 5,628 | (100) |

/2 Provisional data.

## INDIA

## NABARD CREDIT PROJECT

### Documents in Project File

1. NABARD — First NABARD Credit Project:

    (a) Part 1, Main Report, April 1983.
    (b) Part 1, Update, October 1983.
    (c) Part 1, Supplement, October 1983.
    (d) Part II, Annexes, April 1983.
    (e) Part II, Update, November 1984.
    (f) Additional Data Volume, November 1984.

2. NABARD — Pilot Project for Strengthening of the Credit Delivery System in India, February 1984.

3. Data on LDB Recovery for Bihar, Gujarat, Maharashtra, Tamil Nadu, and West Bengal.

4. Expenditure on Cash Inputs, Long-Term Investments and Short- and Long-Term Credit 1971/72 - 1982/83.

5. Changes in State-wise Short- and Long-Term Credit per Hectare and Share of IRDP of NABARD Refinance for 1977/78 - 1980/81.

6. Financial and Economic Analysis of 12 Investment Models.

7. Insurance of Failed Wells.

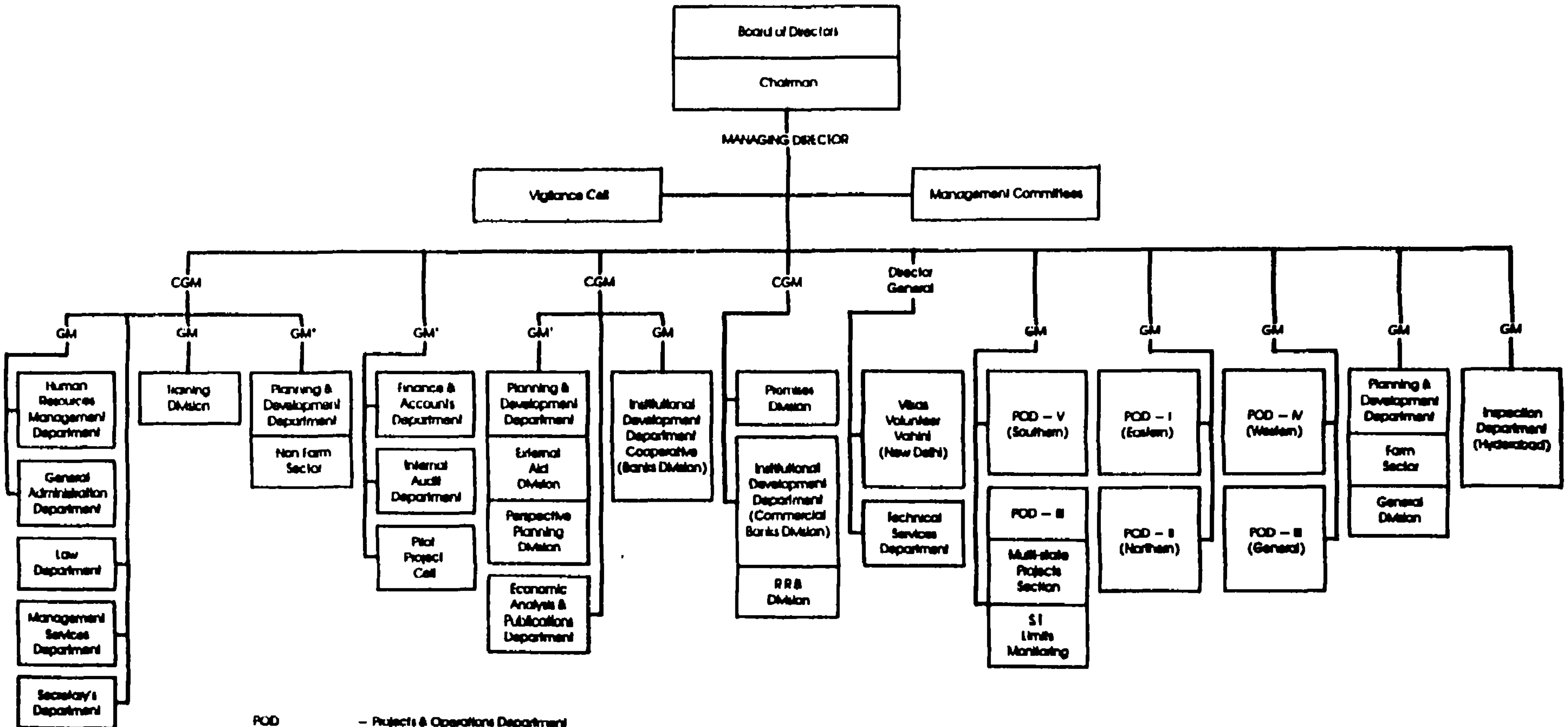
8. NABARD Schematic Lending by State and Subsector - FY83/84.

9. Proposed NABARD Schematic Lending by State and Subsector FY84/85 - 87/88.

INDIA

NATIONAL BANK FOR AGRICULTURE AND RURAL DEVELOPMENT

*Organization Chart of Head Office*




POD – Projects & Operations Department

Southern Division – Andhra Pradesh, Karnataka, Tamil Nadu, Kerala, Pondichery, Lakshadweep

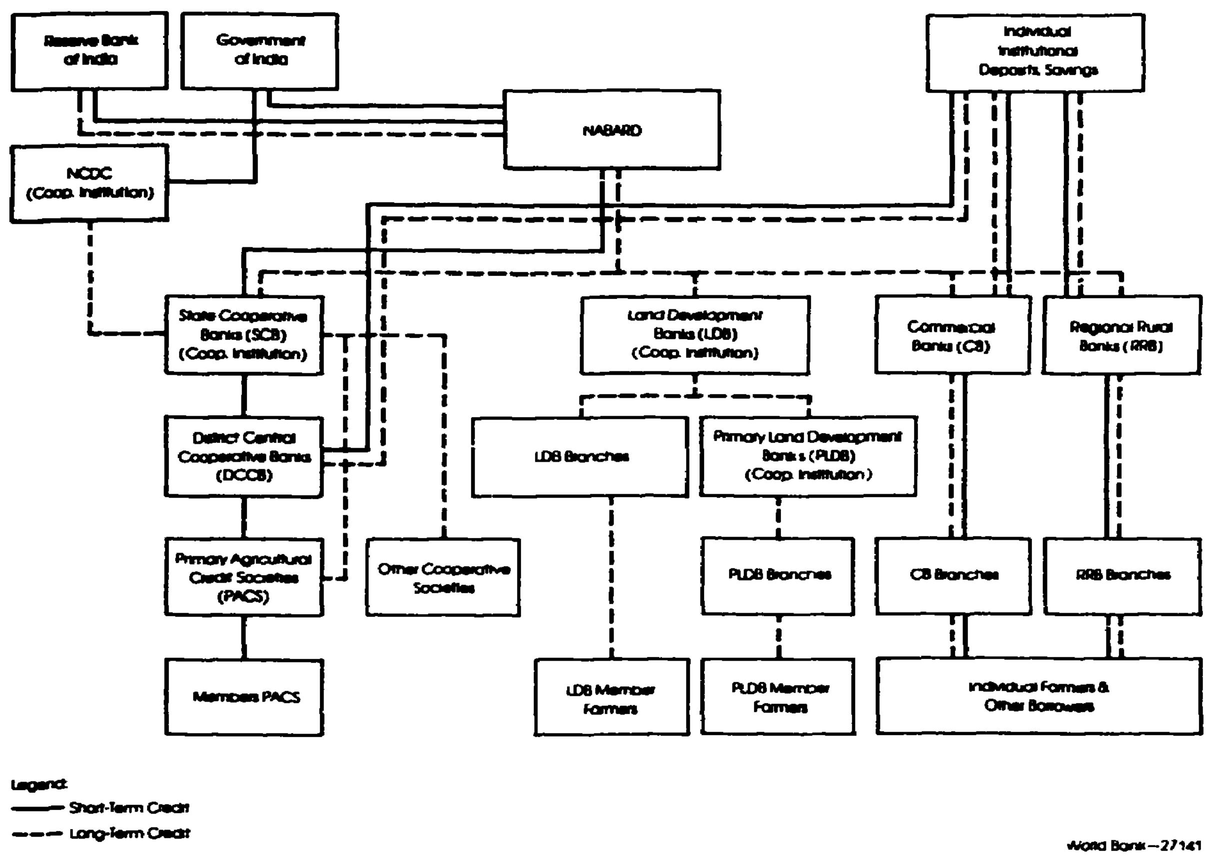
Northern Division – Uttar Pradesh, Punjab, Jammu & Kashmir, Haryana, Himachal Pradesh

Eastern Division – Bihar, Orissa, W. Bengal, Assam, North Eastern States, Andaman-Nicobar Islands

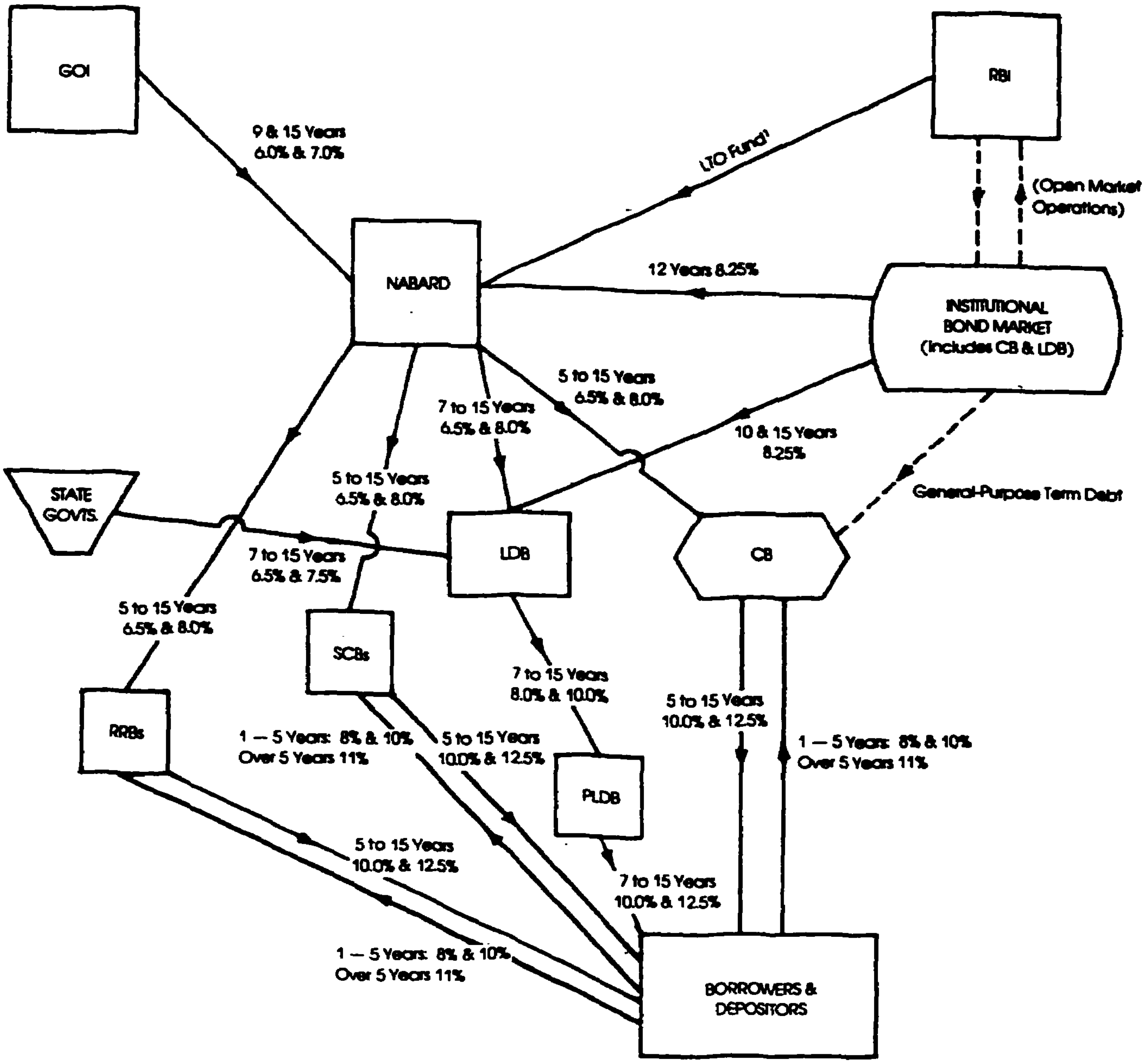
Western Division – Rajasthan, Gujarat, Maharashtra, Madhya Pradesh, Goa, Dadra-Nagar Haveli

World Bank – 27140

**INDIA**
**NATIONAL BANK FOR AGRICULTURE AND RURAL DEVELOPMENT CREDIT PROJECT**
**Flow of Agricultural Credit in India**



INDIA
NATIONAL BANK FOR AGRICULTURE AND RURAL DEVELOPMENT
Major Institutional Funding for Agricultural Term Loans

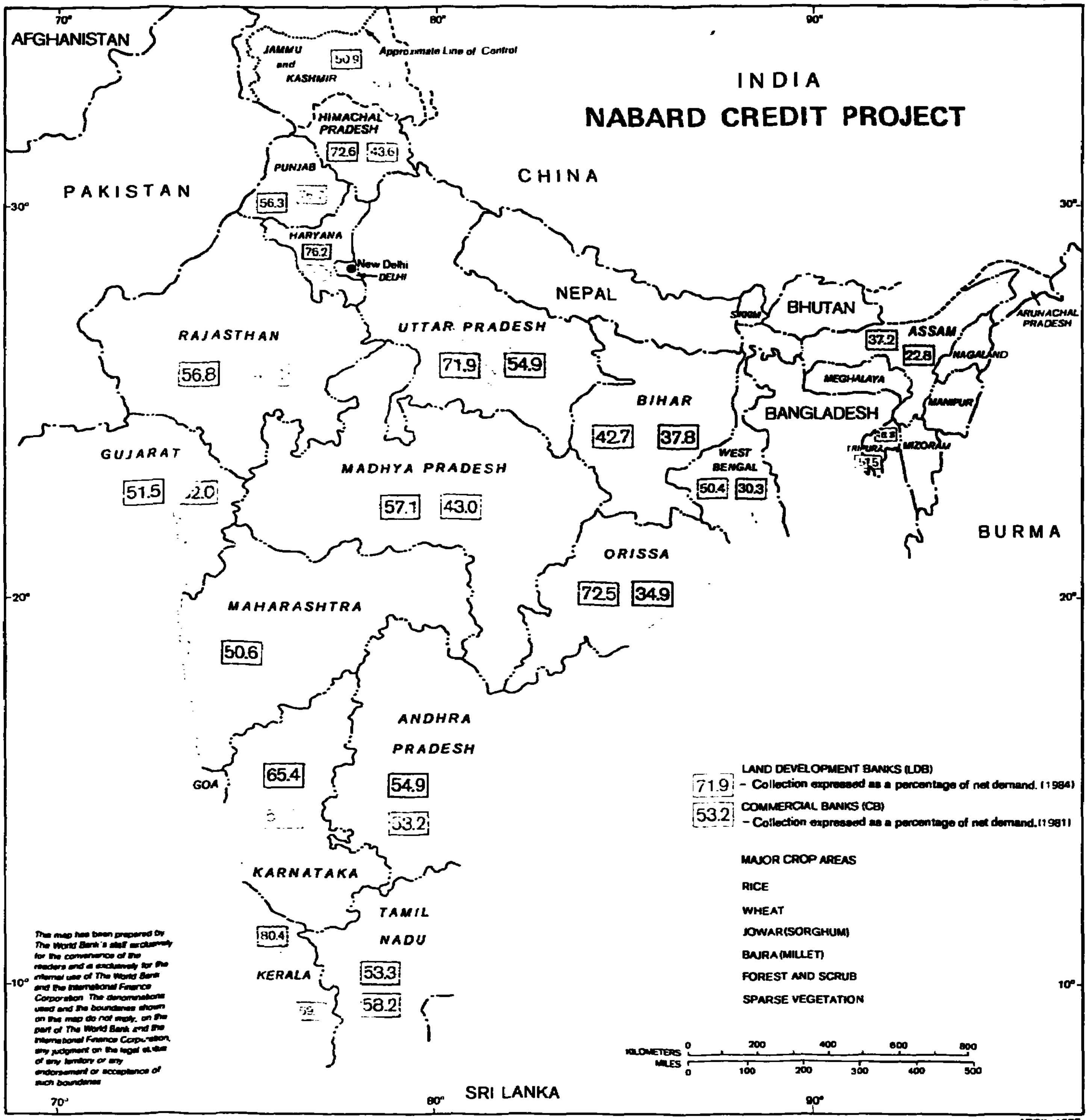



(Arrow from Lender to Borrower)
(Rates & Maturities are Usual Terms at December, 1984)

[1] Upon establishment of NABARD LTO Fund was transferred to NABARD. RBI makes annual contribution to the Fund.

World Bank—27142

IBRD 18832




APRIL 1985