



IFAD
INTERNATIONAL FUND FOR AGRICULTURAL DEVELOPMENT
Executive Board — Sixty-Sixth Session
Rome, 28-29 April 1999

REPORT AND RECOMMENDATION OF THE PRESIDENT

TO THE EXECUTIVE BOARD ON A PROPOSED LOAN TO THE

PEOPLE'S REPUBLIC OF BANGLADESH

FOR THE

SMALLHOLDER AGRICULTURAL IMPROVEMENT PROJECT



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CURRENCY EQUIVALENTS

Currency Unit	=	Taka (BDT)
USD 1.00	=	BDT 48.5
BDT 1.00	=	USD 0.0206

WEIGHTS AND MEASURES

1 kilogram (kg)	=	2.204 pounds (lb)
1 000 kg	=	1 metric tonne (t)
1 kilometre (km)	=	0.62 miles (mi)
1 metre (m)	=	1.09 yards (yd)
1 square metre (m ²)	=	10.76 square feet (ft ²)
1 acre (ac)	=	0.405 ha
1 hectare (ha)	=	2.47 acres

ABBREVIATIONS AND ACRONYMS

AWP/B	Annual work plan and budget
DAE	Department of Agricultural Extension
IGAs	Income-generating activities
IMSC	Inter-Ministerial Steering Committee
LGED	Local Government Engineering Department
NGO	Non-governmental organization
PMC	Project management committee
PMU	Project management unit
TAECC	<i>Thana</i> Agricultural Extension Coordination Committee
WFP/FFW	World Food Programme/Food-for-Work

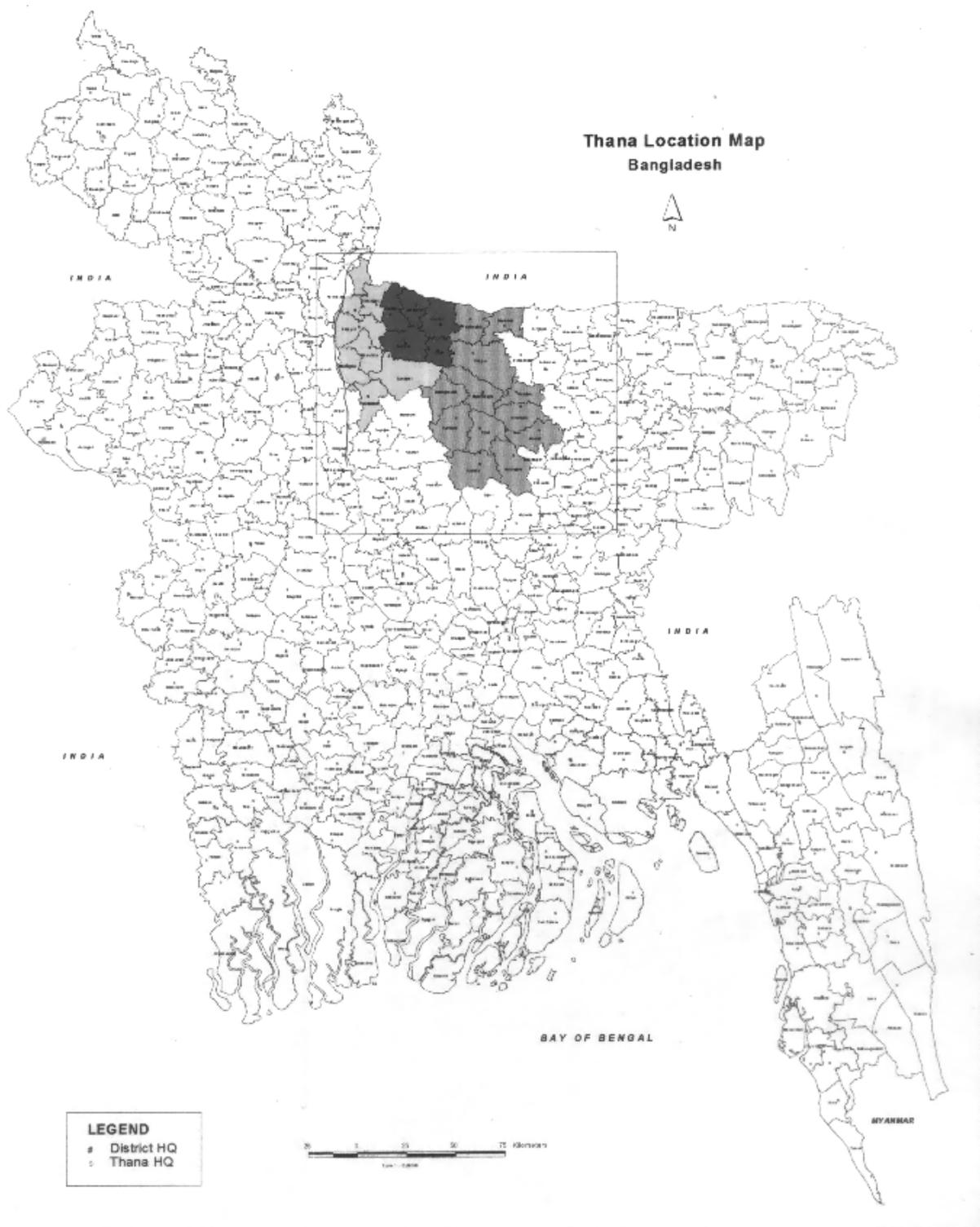
GOVERNMENT OF THE PEOPLE'S REPUBLIC OF BANGLADESH

Fiscal Year

1 July - 30 June



MAP OF THE PROJECT AREA



SAIP PROJECT AREA

Source: IFAD

The designations employed and the presentation of the material in this map do not imply the expression of any opinion whatsoever on the part of IFAD concerning the delimitation of the frontiers or boundaries, or the authorities thereof.

PEOPLE'S REPUBLIC OF BANGLADESH
SMALLHOLDER AGRICULTURAL IMPROVEMENT PROJECT
LOAN SUMMARY

INITIATING INSTITUTION:	IFAD
BORROWER:	People's Republic of Bangladesh
EXECUTING AGENCY:	Department of Agricultural Extension (DAE), Ministry of Agriculture
TOTAL PROJECT COST:	USD 25.73 million
AMOUNT OF IFAD LOAN:	SDR 13.65 million (equivalent to approximately USD 18.62 million)
TERMS OF IFAD LOAN:	40 years, including a grace period of ten years, with a service charge of three fourths of one per cent (0.75%) per annum
COFINANCIERS:	World Food Programme (WFP) Participating banks
AMOUNT OF COFINANCING:	WFP: USD 1.72 million Participating banks: USD 0.65 million
CONTRIBUTION OF BORROWER:	USD 4.42 million
CONTRIBUTION OF BENEFICIARIES:	USD 0.32 million
APPRAISING INSTITUTION:	IFAD
COOPERATING INSTITUTION:	United Nations Office for Project Services (UNOPS)



PROJECT BRIEF

The target group and the poverty situation. The project will target about 1.1 million households representing about 76% of the project area rural population. These are mainly landless and near-landless, marginal and small farmers, as well as female-headed families and destitute women, tribal and indigenous people (Adivasi) and *Charlanders* with income levels below the poverty line.

The area was selected because of its concentration of the rural poor target group, especially in the Jamalpur district, and because of its potential for intensification, diversification and market access. The socio-economic profile from the basic data collection shows that the project target group of landless, marginal or small farmers constitutes 77% of all households in Mymensingh and 70-71% in the other districts. According to a multi-indicator poverty ranking by United Nations Children's Fund, the Jamalpur and Sherpur districts are among the poorest in Bangladesh.

Project activities to benefit the target group. The project is expected to assist the target group in boosting agricultural production and rural incomes, strengthening community organizations, increasing employment opportunities (in particular for women, tribal people and *Charlanders*), and providing basic services and infrastructure facilities to support the target group in effectively accessing high-value markets. For this purpose, the project will provide support for extension and technology dissemination; credit without collateral through or under the supervision non-governmental organizations (NGOs); and development funds to target specific activities and improve rural infrastructure. To effectively reach the target group, the project will also assist in the establishment of beneficiary groups, training of the beneficiaries, etc., for which NGOs will be selected and mobilized. In addition, the project will introduce pilot savings and credit schemes at the community level and ecological villages in the tribal areas.

The project will directly reach about 105 000 households who will benefit from extension and training, while also aiding the rest of the project area population. In particular, demand-driven technologies will be disseminated to about 70 000 target farmers, credit access to about 30 000 and support provided to about 5 000 Adivasi and *Charlanders*. For this purpose, beneficiary groups will total about 6 535, of whom 3 900 are women. About 1.5 million incremental labour days will be required for the construction of civil works, most of which will be provided by the marginal and landless people and women. Rural credit will benefit around 30 000 households. About 10 000 Adivasi and *Charlander* households will be supported under the project. Finally, beneficiaries will have access to better extension services, technology dissemination, marketing possibilities, as well as training and the removal of collateral requirements to enable them to access formal credit and establish their own activities.

Beneficiary participation. To adequately understand the views of local population and the beneficiaries, a participatory rural appraisal and extensive field visits have been undertaken. Two participatory workshops that were carried out during formulation, helped in adapting the design of the project to the needs of the beneficiaries. Finally, a stakeholders' workshop permitted the discussion of project objectives and the design and finalization of the appraisal. In addition, the design of the project took into account the positive experience of IFAD-supported projects. The present project will select and contract suitable NGOs to sensitize rural people, form beneficiary groups and train them to become viable vehicles for effective service delivery to its members. The beneficiaries' participation will be promoted to identify their needs, assign priorities and take responsibility for their operation. Beneficiaries will also be involved in identifying production constraints and participating fully in research contract and demonstration, and in the dissemination of information and technologies adapted to their needs. For this purpose, a further project rural appraisal will be carried out at the beginning of the project.

**REPORT AND RECOMMENDATION OF THE PRESIDENT OF IFAD
TO THE EXECUTIVE BOARD ON A PROPOSED LOAN TO THE
PEOPLE'S REPUBLIC OF BANGLADESH
FOR THE
SMALLHOLDER AGRICULTURAL IMPROVEMENT PROJECT**

I submit the following Report and Recommendation on a proposed loan to the People's Republic of Bangladesh for SDR 13.65 million (equivalent to approximately USD 18.62 million) on highly concessional terms to help finance the Smallholder Agricultural Improvement Project. The loan will have a term of 40 years, including a grace period of ten years, with a service charge of three fourths of one per cent (0.75%) per annum. It will be administered by the United Nations Office for Project Services (UNOPS) as IFAD's cooperating institution.

PART I - THE ECONOMY, SECTORAL CONTEXT AND IFAD STRATEGY¹

A. The Economy and Agricultural Sector

1. Bangladesh is a low-lying, deltaic flood plain which is almost entirely flat and mostly covered with fertile alluvial soils. The country is traversed by the major river systems (Jamuna, Padma and Meghna rivers) flowing from the Himalayas in India into the Bay of Bengal, and subject to variable depths of annual flooding from monsoon rainfall and river spill. As such, Bangladesh is vulnerable both to regular, often catastrophic, floods and to frequent cyclones which destroy crops, livestock and property and cause loss of life. The current population is about 120 million (1995) and growing at about 2% per year (1985-1995). Based upon productive alluvial soil and humid climate, population density is one of the highest in world, at 930 people per km². About 84% of the population still live in the rural areas despite an annual 6% rate of urban migration which has seen Dhaka grow some ten times over in 20 years.

2. Bangladesh, with per capita gross national product (GNP) estimated at about USD 260, is one of the poorest countries in the world. The economic growth accelerated in 1990 to 6.6%, but slowed to stabilize at about 4.2-4.5% during 1992-96. Over the last decade, Bangladesh has moved towards a more open, market and private-sector economy. Since the beginning of 1990s, the Government has intensified its comprehensive economic reform programme to establish a liberalized, market-based and private sector-led system of economic growth and development. The agricultural sector still dominates the economy, employing 60% of the labour force, contributing 30% of the gross domestic product (GDP) and 12% of exports, and providing the raw material for the textile industry which accounts for some 75% of total exports. Paddy is the major food crop together with, *inter alia*, wheat and other food grains, pulses, oilseeds, vegetables and sugar cane. Two thirds of the land area is cultivated and cropping intensity is 170%. Farm output grew at about 2.7% annually between 1980 and 1992, only slightly more than population growth and forecasted to be about 3.3% in 1998.

B. Lessons Learned from Previous IFAD Experience

3. Proposed project design incorporates the lessons learned from IFAD-supported projects, the Country Portfolio Evaluation and the experience of other donors, especially with respect to implementation. Specifically, these include: (i) the most disadvantaged groups of the rural poor (landless and women, marginal and small farmers, etc.) are targeted through the adoption of appropriate technology; (ii) local non-governmental organizations (NGOs) are quite effective in

¹ See Appendix I for additional information.



reaching the target group and intermediating credit if properly selected and supported; (iii) meeting the credit needs of the target group, without collateral, is a prerequisite to increasing their coping capacity and generating additional income. Thus far, however, national commercial banks have been reluctant to meet this need. Guarantee and risk funds were introduced by IFAD and other donors (the German Agency for Technical Cooperation, Danish International Development Assistance, etc.) to substitute the collateral requirements but with limited success. Other ways to ensure the access of the target group to credit should be tried and tested; and (iv) easing complex and lengthy government administrative and financial procedures exist. Simplification of these procedures and suitable training of project directors and staff in procurement and accounting should help improve project implementation and transparency. Main lessons taken into account in the design of the project include: (i) increase the involvement of the private sector in project activities; (ii) agricultural production, off-farm income-generating activities and technology adoption responding to market assessment and potential demand; (iii) contracting suitable local NGOs to mobilize the target group and assist them; and (iv) clarifying the roles of the public institutions, the private sector and NGOs.

C. IFAD's Strategy for Collaboration with Bangladesh

4. **Bangladesh's policy for poverty eradication.** Poverty is highly correlated with landlessness which has been identified as a major cause of the country's poverty. The landless are resource-poor and represent about 47% of all rural households. Marginal farmers have holdings around 0.2 to 0.6 ha. Population pressure, inheritance and indebtedness in the face of fixed land resources are the main factors that marginalize farmers ultimately making them landless. It is estimated that about 48% of the rural population live below the poverty line (an intake of less than 2 120 calories per person per day) with some 28% of the population considered as "hard-core poor" (less than 1 805 calories per person per day). In addition, there is a significant group termed "vulnerable non-poor" who are close to the poverty line but who may readily sink below it with illness, injury, natural calamity or loss of employment. Female-headed households are most affected and are classified in the "hard-core". Rural poor families are characterized by a high level of dependency on off-farm wage labour for survival and by a high percentage of family income being spent on food. Food insecurity is a continuing preoccupation for most rural Bangladeshis, despite some minor gains in lower rice prices and purchasing power in recent years.

5. Successive governments in Bangladesh have consistently given top priority to poverty alleviation. This has been reflected in every Five Year Plan, and was explicit in the most recent Fourth Five Year Plan (1990/95). The outlines of the new Fourth Five Year Plan are to promote economic growth (i.e., at a level of 5% per annum GDP or more), poverty alleviation, human resource development, generation of productive employment, food self-sufficiency, building infrastructure, and strengthening of the technological base. Furthermore, the new plan emphasizes more forcefully the earlier themes of decentralization of responsibility to the district and *thana* levels and recognizes the significant role that NGOs can play in the development process. The Government supports the targeting of disadvantaged rural groups and recognizes the contribution of participatory processes and the effectiveness of involving local communities in rural development aimed at poverty alleviation. The Government will continue to emphasize deregulation and the reform of the public sector and its institutions.

6. The major poverty initiatives of Government in the rural sector aim at increased productivity of the rural poor, as a major vehicle for poverty alleviation through: (i) increased employment and income opportunities; (ii) development of rural institutions; (iii) improvement of rural poor skills and access to means of production; (iv) involvement of intended beneficiary communities; (v) promotion of women's participation in rural development; and (vi) agricultural diversification.

7. **The poverty eradication activities of other major donors.** Many multilateral and bilateral donors are heavily involved in poverty-alleviation programmes, agricultural development and related



rural infrastructure. About 45 agriculture-related projects are being financed. The most important include: (i) the Agricultural Support Services Project supported by the World Bank which assists the Government in developing the New Agricultural Extension Policy and support agricultural services; (ii) the Horticultural Development Project, funded by the Asian Development Bank; (iii) Integrated Soil Fertility and Management Project funded by the Danish International Development Assistance which has sponsored and cooperated with the Bangladesh Agricultural Research Institute for on-farm research and with the Bangladesh Rural Advancement Committee (BRAC) in issuing fertilizer recommendations; (iv) the United States Agency for International Development (USAID)-funded agro-based Industries and Technology Project; (v) the Food and Agriculture Organization of the United Nations (FAO)/United Nations Development Programme's *thana* Cereal Technology Transfer and Identification Project; (vi) the Integrated Pest Management Project which is sponsoring and conducting courses in integrated pest management technology; (vii) the Government-funded Crop Diversification Project previously supported by The Netherlands and Canada which assisted in the introduction and demonstration of oilseed, pulses, vegetables, homestead gardening etc., to promote diversification; (viii) the World Food Programme's (WFP) Vulnerable Group Development Programme which provides support to poor rural women to move out of poverty. It provides food assistance through a number of subprojects. The most important is the Income-Generating Project that covers about 450 000 poor vulnerable women in about 460 *thanas*.

8. **IFAD's strategy in Bangladesh.** Since 1978, IFAD has approved eighteen loans for Bangladesh for a total SDR 199 million, net of cancellation. Ten loans are now closed and two others are expected to close in 1999. IFAD strategy has always been to support the Government's effort to alleviate poverty and increase the productivity of the rural people in a sustainable and environmentally friendly manner. IFAD's targeting remains focused on disadvantaged groups of rural people (the landless, women, small and marginal farmers). IFAD will continue to play an innovative and catalytic role in the promotion of a beneficiary-driven development approach, through the provision of credit and community development — utilizing the expertise of NGOs — accompanied by institution building to raise the technical skills of government staff to support beneficiaries. A national Reality Check Workshop will be held in 1999 in Bangladesh to discuss poverty issues and to review and adjust IFAD's strategy.

9. **Project rationale.** The project area has a high population density and high unemployment, especially among IFAD's target group. The geographical position of the project area, its easy accessibility, the existence of good water resources and the long experience of farmers in irrigation make it particularly suitable for the cultivation of a wide range of crops and an important supplier of the Dhaka market. The increase in urban population and the rise in per capita incomes will have a stimulating effect on production diversification. In addition Adivasi (tribal population) have not benefited much from development activities and only a few NGOs have formed groups and promoted few income-generating activities.

10. Different varieties of paddy are tolerant of temporary or longer flooding periods. However, most crops need protection and drainage to grow properly. Small embankment and drainage schemes have proved easy to manage and maintain, and are thus better suited to the target group and have no significant negative impact. Mobilization of flood water may also prove effective and therefore appropriate technologies should be tested and promoted.



11. The earthworks of a number of rural roads built in the past were not provided with the necessary structure (bridges, culverts, etc.). This limits their use and has a negative environmental impact on fish movement. Considerable opportunities exist to open up areas and connect villages to serve the urban district markets. This is very important for perishable produce, which has to be delivered to the market quickly and in good condition. Furthermore, the construction of rural roads through labour-intensive techniques creates immediate employment for the target group.

12. The Government's approach to poverty alleviation has evolved over time to focus on community sensitization and mobilization in order to ensure that village and women's organizations have access to the technical skills and expertise of the line agencies. These agencies have encouraged the beneficiaries to become involved in the selection of priority activities and to participate in their implementation. Existing NGOs should be contracted to undertake this task.

13. Credit is an essential requirement for farmers if they are to take on new enterprises. Provision of credit requires special measures as the target group has no collateral and cannot borrow from the formal banking sector. For this purpose, private commercial banks will be invited to participate in the project, NGOs and private entities will be encouraged to intermediate credit to the target group and develop an alternative to the collateral requirements, and a savings/credit scheme at the community level will be promoted.

PART II - THE PROJECT

A. Project Area and Target Group

14. The project area, with a population of about 8.0 million, covers three districts: Mymensingh, Jamalpur and Sherpur. It is a predominantly flat deltaic plain with rich soils suitable for a variety of crops depending on their position and topography. There is a substantial area of Chars (deposition in the braided river system) which consist of settled and unsettled. Both are subject to annual flooding, but the latter to burial by fresh deposits of alluvia. Most soils are suitable for irrigated agriculture. Altitudes rise between 1 and 15 m. The climate is mainly rainy or monsoonal from June to September and dry from December to February. The region is flooded annually and drainage is dominated by the river system and its tributaries. During the rainy season, drainage and embankments are required in order to protect soils and crop production.

15. During the dry season, farmers can grow a wide variety of crops but need irrigation as rainfall is minimal. Although there are large groundwater aquifers which are annually recharged, only half of the irrigable land in the area is irrigated, the main reason being the limited access of small farmers to credit to buy irrigation equipment. Cropping intensity is low and irrigated area is limited leaving great scope for possible intensification and diversification. Until the arsenic pollution issue is resolved, water mobilization should be limited to shallow wells and surface water, such as rubber dams.

16. A large number of NGOs are operating in the project area, many of them focusing exclusively on landless and functionally landless target groups, with an emphasis on women for whom specific programmes are being developed. Only few are working with Adivasi and tribal people. Many NGOs operate revolving funds to support skill-based income-generating activities (IGAs), such as poultry farming, beef fattening, homestead gardening, weaving and handicrafts, as well as non-formal education, child education, primary health care, sanitation, and drinking water supply. Loan recovery rates range between 90 and 100%. These activities will be further supported and expanded under the project to reach out to the largest number of the target group.

17. The road network in the project area is relatively poor, as in the rest of the country, mainly due to the physical barriers of the many large and small rivers and other waterbodies. Most roads are not



bridged and the banks are in very poor condition because of annual overtopping. Recently, under its Growth Centre Rural Road Connecting Programme, and with the assistance of the World Food Programme/Food-for-Work (WFP/FFW) programme, the Local Government Engineering Department (LGED) has improved some sections, but the effort has lacked the funding needed to cover the relevant structures. River transport is important, especially during the monsoon season.

18. Out of the total project area rural population of about 1.4 million rural households (6.94 million people), about 76% belong to IFAD's target group. The districts have been selected because they are among the poorest in Bangladesh, and have a potential for crop diversification and relative accessibility to urban markets. The target group consists of: (i) **small farmers** (530 000 or 39%) who own 0.6-1.0 ha. Farming is their principal source of income: they are usually engaged in low-input/low-output subsistence paddy production, but have important potential for intensification and diversification if irrigation and drainage are introduced; (ii) **marginal farmers** (256 000 or 19%) who own 0.2-0.6 ha. Depending on the location of their land, most of them have production systems similar to small farmers but with a lower proportion of their income derived from paddy, the rest coming from activities away from their holdings, including agricultural wage labour; (iii) **landless and functionally landless** (234 000 or 17%) who own up to 0.2 ha only used for their subsistence, their main income being derived from work other than from their holdings. Some grow vegetables and fruits that are sold on the local market. Only a few landless have homesteads. Occasionally, they have IGAs but rely mostly on providing their labour during peak seasons and migrating to urban areas during the slack seasons.

19. Other poor people to be targeted by the project, but belonging to the above classification include: (i) tribal and indigenous population (Adivasi) (80 000 or less than 1%), most of whom live in the Garo hills in proximity to the Indian border, but also scattered in the three districts; (ii) *Charlanders* (128 000) living in about 200 *Charlands* scattered all over the project area; and (iii) women who head about 340 000 (or 24%) of the households. Women who are heads of their own households are found in most of the above groups, but they represent a higher proportion in the landless and functionally landless categories. Most are engaged in various wage-earning activities, including construction work and home processing.

B. Objectives and Scope

20. The main project objective is to boost food production and household incomes of the rural poor in the project area, thereby improving their food security and standard of living. For this purpose, the project strategy will include: (i) contracting suitable NGOs to form cohesive beneficiary groups and providing them with training and support; (ii) strengthening extension services and reorienting their approaches to ensure beneficiary participation in the planning and implementation of activities; (iii) increasing employment opportunities for the landless, functionally landless and women through provision of collateral-free credit for IGAs; (iv) promoting a number of activities to benefit minority groups such as the Adivasi and *Charlanders*; and (v) improving basic infrastructure, including access roads and marketing and training facilities.

21. The project has six major components, to be implemented over a six-year period: (i) agricultural development; (ii) rural community support; (iii) rural finance and savings; (iv) support to Adivasi population and *Charland* areas; (v) rural community infrastructure; and (vi) project management.

C. Components

Agricultural Development

22. **Research and extension.** The aim is to strengthen the Department of Agricultural Extension's (DAE) capacity to deliver appropriate extension messages to the small and marginal farm groups. The strategy will be based on: (i) demand-driven extension to respond to the beneficiaries' priorities. A



needs assessment survey will be undertaken to identify the constraints faced by the target group and to orient research trials and topics and the training of extension staff. The survey will be updated regularly in consultation with farmers by means of field days, trials and demonstrations, and feedback through extension messages. Priority extension message include: crop diversification, introduction and expansion of irrigation and on-farm water management, use of high-yielding and improved varieties, pest management and more efficient use of inputs; and (ii) participatory research findings.

23. Under this subcomponent, the project will finance in the three districts: (i) the rehabilitation of DAE offices; (ii) the provision of equipment; (iii) the training of DAE extension staff in integrated pest management (IPS), homestead gardening and any other relevant subject; (iv) the training of beneficiaries in IPS, homestead gardening and any other relevant subject, and the setting up of demonstrations, fairs and workshops to take into account beneficiaries' needs in the annual work plan and budget (AWP/B); (v) funds to contract research institutes to carry out trials, bi-annual workshops with the participation of beneficiaries to identify research themes and annual workshops to review research findings and conclusions; (vi) the establishment of linkages with relevant research institutes such as the International Rice Research Institute and the Bangladesh Rice Research Institute; (vii) the support of informal seed multiplication and distribution schemes, including the establishment of *thana*-based seed centres to be operated by beneficiary groups; (viii) transport facilities to ensure regular visits to the field; and (ix) technical assistance to help in the preparation of training materials, and training district staff, designing and developing communication materials, and supporting participatory extension and research.

24. In addition, emphasis will be put on the development of *Charland* and tribal areas to meet their needs and help remove some of their constraints, including: (i) improved crop and livestock farming; (ii) assistance with marketing arrangements; and (iii) livestock improvement.

25. **Small scale water management schemes.** The project will help small and marginal farmers to cope with and exploit the effects of early floods and early flood recession and late floods in the pre and post-monsoon periods. This will be achieved by the construction of various small-scale works (of an average size of 500 ha) including embankments, regulators, drainage sluices and channel re-excavation, and rubber dams. Small embankment and drainage schemes are more practical for small marginal farmers, as their maintenance and operation are simple and have only a marginal impact on the environment. In addition, water harvesting will also be promoted using rubber dams, to be financed on a pilot basis. Scheme surveys have been conducted to identify potential sites. Schemes must benefit the largest number of the target group, who must agree to provide the land and assume full responsibility for operation and maintenance. For this purpose, a water management cooperative association will be established for each scheme.

26. The project will finance: (i) the construction of about three rubber dams and the development or improvement of about 36 km of farm protection embankment and about 27 km drainage canals with support under the WFP/FFW to cover unskilled labour; (ii) support for each water management cooperative association with training and the provision of equipment, including bicycles and tool kits; and (iii) technical advice and training provided through existing government departments at the field level in matters of water management.

Rural Community Support

27. Project activities will be based on involving the beneficiaries at all stages of planning and implementation and on their assuming responsibility for the operation and maintenance of the assets created. There are about 3 900 groups of landless, near-landless and women formed by the NGOs in the project area. The NGOs will be encouraged and contracted to strengthen their activities with existing groups, and to establish new ones where potential exists and expand their role to cover marginal and



small farmer groups who have so far not benefited effectively either from government services or from NGOs. Suitable NGOs will be selected and contracted for awareness-building tasks and to strengthen, form and train: (i) about 2 135 beneficiary groups to secure for them access to public-sector services; (ii) about 650 Adivasi groups; (iii) 250 *Charland* groups; (iv) about 50-60 local contracting societies of landless men and women who will be accorded priority for work in the provision of the infrastructure financed under the project; and (v) technical reorientation of NGO staff to enable them to deal with specific issues of small and marginal farmers and to undertake needs assessment and impact assessment studies. In addition, a small revolving fund will be managed by the NGOs to benefit primarily the Adivasi for on and off-farm investment and to promote IGAs using respective NGO procedures and criteria. A pilot development fund will also be financed to improve the standard of living and basic infrastructure to benefit women and children (water supply, etc.).

Rural Finance and Savings

28. To ensure credit accessibility for the target group, the project will: (i) contract NGOs for this purpose to organize small and marginal farmers, landless and women into groups; (ii) arrange for a credit line with the invited scheduled banks (national commercial banks) to provide loans directly to these groups or through selected NGOs, and without collateral requirement; (iii) provide funds to selected NGOs to establish their own revolving funds to provide loans, in line with their procedures and policies, to Adivasi and *Charlanders* with special focus on landless and women for IGAs; and (iv) promote savings and credit schemes at the community level under the supervision and support from selected NGOs; and adequately training the beneficiaries and staff concerned.

Support to the Adivasi Population and *Charland* Areas

29. ***Charland* development.** *Charlands*, which constitute about 8% of the total project area population, are characterized by vulnerability to annual flooding, sandy and unstable soils, river bank erosion and low moisture holding capacity, and are prone to frequent flooding. The population is very poor even by Bangladesh standards; they use low technology and low input. Potential increases in productivity do exist if research results and extension messages are adapted to the target group needs, availability of required inputs and accessibility to credit without collateral. A participatory needs assessment will be carried out in collaboration with the relevant NGOs to determine beneficiary needs, especially the identification of priority zones for sustainable development-type activities. To meet beneficiary needs as they indicated during formulation, the project will: (i) support individual poor households to better protect their houses from floods (raising house plinths, turfing, tree plantation, etc.); and (ii) construct flood shelters, for the poorest who cannot afford a relatively secure house. These will be used normally as a community facility for training, education, literacy, as a clinic or social centre.

30. **Tribal area development.** The Adivasi population is a minority population with a social and cultural background quite different from the majority of the population. They are very poor and have inadequate access to potable water and sanitation facilities, electricity supply, proper communication systems and social and economic infrastructure. In line with government policy, support will be provided by the project: (i) to develop three to six **pilot ecological villages** (each costing about USD 30 000) to meet the specific needs of this poor hill population. This will consist of integrated village development, including the provision of water supply free of arsenic contamination, sanitation, a community biogas plant, energy-saving ovens, etc.; (ii) to establish an **Adivasi Development Fund** of USD 0.4 million to meet unforeseen or emergent needs of the tribal communities. Selection of priority activities to be financed under the development fund will be made in consultation with the beneficiaries who will agree to contribute a minimum of 10% to the



investment cost and take over the responsibility for operation and maintenance. A suitable NGO, already active in the area, will be contracted to support these activities.

Rural Community Infrastructure

31. Rural roads are submerged during the flood period which makes transit difficult. In addition, rural roads built in the past have not always been provided with the necessary cross-drainage structures. The project will upgrade the road standards in the area, giving priority to those in poorer condition. Selection criteria will be prepared by LGED in line with project objectives, and will be approved by IFAD and WFP. The project will construct about 1 130 m of structures, upgrade about 212 km of roads to all-weather standards and include provision of the required structures, including earthworks, for roads already built. WFP will finance the earthworks and IFAD the cost of the structures.

32. Limited basic rural infrastructure such as rural markets has constrained accessibility and marketing especially from remote areas where the target group is concentrated. The criteria for the selection of the *thana* to benefit from these rural infrastructure investments will be similar to those for the embankment and drainage schemes. The project will finance: (i) the construction or rehabilitation of some 12 union buildings or agricultural centres for extension/training and the provision of simple furniture, to be used mainly for training beneficiaries, and workshop activities at the union level; and (ii) the construction or upgrading of some 24 growth centres and market facilities.

Project Management Unit

33. A project management unit (PMU) will be set up in DAE, to coordinate project activities with LGED, NGOs, the banks and local authorities. It will be appropriately staffed to handle the flow of funds to implementing agencies, including provision of revolving funds to participating NGOs. The cost items include: additional salaries and allowances, equipment, transport, technical assistance and incremental operating costs. A liaison unit, to be established within DAE and appropriately staffed, will facilitate and expedite matters in Dhaka with respect to the lengthy and time-consuming administrative and financial procedures.

D. Costs and Financing

34. **Project costs.** Total project costs over the six-year period are estimated at USD 25.73 million, including physical and price contingencies. Of this figure, foreign exchange costs represent about 17%. Physical contingencies represent 4% of base costs. Price contingencies are estimated according to World Bank/International Monetary Fund projections. Constant purchasing parity exchange rates have been used to estimate project costs, to reflect the likely depreciation of the BDT against major currencies due to projected differentials in domestic and foreign inflation rates. A cost summary is presented in Table 1.

35. **Project financing.** Table 2 shows the project financing plan. IFAD will finance about USD 18.62 million covering about 72.4% of total project costs. The WFP/FFW will finance USD 1.72 million (6.7%) covering the cost of earthworks. The Government will finance about USD 4.42 million of which USD 2.43 million will be taxes. The contribution of the beneficiaries will amount to USD 0.32 million or 1.2%.

**TABLE 1: SUMMARY OF PROJECT COSTS**^a
(USD '000)

Components	Local	Foreign	Total	% of Foreign Exchange	% of Base Costs
Agricultural development	3 970	986	4 956	20	21
Rural community support	2 632	287	2 919	10	13
Rural finance and savings	1 770	656	2 426	27	10
Support to Adivasi population and <i>Charland</i> areas					
1. <i>Charland</i> development	1 004	243	1 247	20	5
2. Tribal area development	602	200	802	25	3
Subtotal	1 606	444	2 049	22	9
Rural community infrastructure	6 996	1 133	8 129	14	35
Project management	2 107	631	2 738	23	12
Total base costs	19 081	4 136	23 217	18	100
Physical contingencies	735	199	854	14	4
Price contingencies	1 423	233	1 657	14	7
Total project costs	21 240	4488	25 727	17	111

^a Discrepancies in totals are due to rounding.

TABLE 2: FINANCING PLAN ^a
(USD '000)

Components	IFAD		WFP		Participating Banks		Government		Beneficiaries		Total		Foreign Exchange	Local (Excl. Taxes)	Duties and Taxes
	Amt.	%	Amt.	%	Amt.	%	Amt.	%	Amt.	%	Amt.	%			
Agricultural development	4 534	82.5	-	-	-	-	962	17.5	-	-	5 496	21.4	1 079	3 630	788
Rural community support	2 942	90.6	-	-	-	-	305	9.4	-	-	3 247	12.6	319	2 623	305
Rural finance and savings	1 790	73.2	-	-	653	26.7	3	0.1	-	-	2 446	9.5	656	1 787	3
Support to Adivasi population and Charland areas															
1. Charland development	1 226	85.3	-	-	-	-	211	14.7	-	-	1 437	5.6	281	987	169
2. Tribal area development	753	88.3	-	-	-	-	54	6.3	46	5.4	853	3.3	211	599	43
Subtotal	1 979	86.4	-	-	-	-	265	11.6	46	2.0	2 290	8.9	492	1 587	212
Rural community infrastructure	5 335	57.6	1 717	18.5	-	-	1 943	21.0	273	2.9	9 267	36.0	1 281	7 159	827
Project management	2 043	68.5	-	-	-	-	938	31.5	-	-	2 981	11.6	662	2 022	297
Total disbursement	18 622	72.4	1 717	6.7	653	2.5	4 416	17.2	319	1.2	25 727	100.0	4 488	18 808	2 432

^a Discrepancies in totals are due to rounding.





E. Procurement, Disbursement, Accounts and Audit

36. **Procurement.** Goods and services will be procured in accordance with IFAD Procurement Guidelines. Most items, including vehicles and equipment, are available locally at competitive prices. International competitive bidding will be applied for the recruitment of technical assistance and procurement of goods, valued at more than USD 100 000. Civil works will be contracted following local procedures acceptable to IFAD.

37. **Disbursement, accounts and audit.** A Special Account in foreign exchange will be set up in Bangladesh Bank to facilitate the regular flow of funds. The authorized allocation will be USD 2.0 million. The project accounts will be replenished from the Special Account in foreign exchange in accordance with the agreed AWP/B. All withdrawal applications will be sent through the project implementation unit. Project accounts will be audited by the Government Auditor. Certified audit reports will be transmitted to IFAD not later than six months after the end of the government's fiscal year. The Auditor's Report will include a statement as to the adequacy of the accounting system and internal controls of the different executing agencies, and as to whether IFAD funds have been used for their intended purpose, together with a confirmation that the statements of expenditure correctly reflect the expenditures incurred and the usage of the Special Account.

F. Organization and Management

38. The project will be implemented by district and *thana* staff with technical support from the line agencies concerned. A PMU will be established for this task and be headed by a project coordinating director, with qualifications acceptable to IFAD. He will coordinate the activities of all agencies involved in project implementation, including the DAE/Deputy Director, LGED, NGOs and selected banks. A monitoring and evaluation cell will be attached to the PMU and be responsible for monitoring all project activities. The PMU will enter into agreement with line agencies and NGOs for the implementation of their respective activities. To expedite project administrative and financial paper processing in Dhaka, a liaison unit will be established within the DAE and appropriately staffed.

39. At the central level, an **Inter-Ministerial Steering Committee (IMSC)** will be established. It will have the Secretary of the Ministry of Agriculture as chairman, the project coordinating director as member secretary, and representatives from concerned departments and financial institutions. NGOs and private-sector agencies and individuals with relevant expertise will be invited to participate as appropriate. The IMSC will meet twice a year, once in June to review the previous year's progress and approve the following year's AWP/B, and once in December/January to review mid-year progress and deal with any problems that may occur during implementation. Extraordinary sessions of the IMSC will be held to solve any serious issue affecting project implementation. At the project-area level, a **project management committee (PMC)** will be established. Chaired by the project coordinating director, it will comprise the project community services director as secretary, the district heads of the Department of Finance and LGED and representatives of the NGOs involved in community mobilization and development. The PMC will be a working committee and meet bi-monthly at the project's outset, to discuss project progress, rectify shortcomings, ensure a uniform implementation approach and prepare draft annual workplans for presentation to IMSC.

40. The New Agricultural Extension Policy established a **District Extension Programming Committee** in every project district, chaired by the Deputy Commissioner and comprising the DAE/Deputy Director as member-secretary and representatives of local government bodies. This will be extended for project activities and will add the following members: a representative of PMU, representatives of all agencies involved in the project and cooperating NGOs and beneficiary groups. It will meet every two months and its responsibilities will include the preparation of the district



AWP/B to be submitted to the PMC, approval and review of quarterly AWP/B and the overall coordination of project activities in the respective districts. Similarly, at the *thana* level, a **Thana Agricultural Extension Coordination Committee (TAECC)** will be set up with functions similar to the District Extension Programming Committee. The TAEC will be headed by the *thana Nirbahi* Officer who will act as member secretary; it will be attended by block supervisors and representatives from LGED, NGOs and beneficiary groups. The TAECs will meet about every two months to review progress and plan new activities.

G. Economic Justification

41. **Benefits and beneficiaries.** The entire farming community in the project area, especially the target group, is expected to benefit directly or indirectly from rural roads, rural infrastructure and extension services. The project will thus focus on reaching the marginal and small farmer community, and on the landless and the near-landless, the Adivasi and the tribal people who will be mobilized into groups and provided with training and support.

42. At least 82 000 households, of which at least 50 000 are marginal and small farmers, will be reached under the specific extension activities. Most of them will benefit from one or more project activity. More specifically, about 10 000 Adivasi and *Charlanders* households will directly benefit from crop diversification and intensification and another 10 000 from homestead improvements.

43. Embankment and pilot rubber dam schemes will tentatively benefit 6 000 to 8 000 farmers of whom at least 50% are in the target group. Pilot ecological villages will benefit three to six tribal villages. Credit for irrigation, IGAs, production inputs, etc., will benefit at least 30 000 households.

44. In addition to the labour provided for agricultural activities, landless and women will be contracted under the WFP/FFW to carry out earthworks for embankment, drainage and other rural infrastructures. Credit for IGAs will focus on women and the landless.

45. The main quantifiable benefits arising from the project are: (i) diversification into higher-value crop production; (ii) enhanced productivity through intensification and investments in irrigation and drainage; (iii) reduction in transport and marketing costs from investments in road improvements; and (iv) improved incomes through the expansion of existing on and off-farm IGAs or the establishment of new activities. As a result, total incremental production at full development is expected to reach 24 000 t of paddy, 2 820 t of vegetables and 1 338 t of potatoes. Most of this incremental production, which is less than 1% of the total production, will not face any marketing difficulty especially when access is facilitated and a great share consumed within the households.

46. The project seeks to raise incomes and improve food security for small and marginal farm households, the landless and women. Farm models have been developed for different farm sizes and cropping patterns. Analysis of these models shows that the increase in beneficiaries' income will range from 13% in the mixed cropping area to 77% in the irrigated farm. The with-project household income will range from about USD 169 for farmers in the flood control and drainage (FCD) schemes and rainfed to about USD 253 for irrigated farms. Proceeds from IGAs will range from USD 50 for homestead cropping to about USD 135 for poultry IGAs. Finally, beneficiaries will have access to better extension services, technology dissemination, marketing possibilities, and training and the removal of collateral requirements for access to formal credit with which to set up their own activities.

47. **Economic analysis.** The economic rate of return (ERR) over a 20-year period is estimated at 18.7. In calculating project costs, all direct investment and operating costs, net of identifiable taxes and duties have been included. The opportunity cost of labour was taken at 100% of the average market wage rate (about USD 0.9/day). The economic prices of tradable commodities were based on projected



world market prices. A Standard Conversion Factor of 0.90 for all other produce was used. Sensitivity analysis of the impact of a 10% increase in costs or a 10% decrease in benefits show that the ERR will drop to about 16.7%, while a one year lag will reduce it to about 16%.

H. Risks

48. The risk of major floods is always present, and therefore calculations of yield levels take no account of implicit flood risk factors. Another important risk is that the DAE staff might not be inclined to change their approach to work more effectively with marginal and small farmers. Here the project will provide adequate training and involve NGOs in group formation to ensure a workable linkage between them and government services. The project rural appraisal will be undertaken jointly by DAE and NGO staff to familiarize DAE staff with the participatory approach. Involvement of NGOs in credit intermediation has sometimes proved difficult. A new approach involving beneficiary groups in savings and credit under the supervision of NGOs will be tested on a pilot basis. Appropriate support and training will be provided to NGOs. In addition, national commercial banks have been reluctant to provide credit without collateral to both the beneficiaries and NGOs: the introduction of private commercial banks is expected to stimulate competition. Moreover, diversification into high-value crops may prove difficult. To stimulate farmers in this direction, investments to improve marketing infrastructure are proposed, and market information will be provided along with extension to orient the diversification process to meet potential demand. Another risk might be seen in the inadequate operation and maintenance of the new embankment and drainage schemes and other rural infrastructures. These facilities will be selected in consultation with the beneficiaries, who should have already agreed to take over full operation and maintenance responsibilities and have been provided with the required training and assistance by suitable NGOs. Finally, the risk associated with small farmer irrigation investment will be minimized by having the NGOs conduct a technical appraisal with assistance from the project technical team.

I. Environmental Impact

49. The Environmental Screening and Scoping Note shows that the project has no potential negative impact on the environment. The project will help to improve environmental aspects. Flood control, drainage facilities and tree plantation will reduce the damage to infrastructure and farmers' land. To avoid the risk of arsenic contamination, no deep pumping will be financed under the project. At the same time, credit will be provided for shallow wells and rubber dams schemes will be tested and promoted. Reduction in siltation will have only a marginal negative impact on soil fertility. Intensification and diversification will necessarily increase the use of fertilizers and agrochemicals, although levels are expected to be relatively low. The project seeks to introduce integrated pest management for vegetables to minimize the impact on both the environment and human health. Existing roads impede fish movement. For this purpose, the rehabilitation of these roads will include environment friendly structures such as bridges and culverts to obviate such negative impact.

J. Innovative Features

50. The main innovative features include: (i) the establishing of pilot revolving funds (savings and credit) administered by the community with support and under the supervision of suitable NGOs; (ii) targeting minority populations, namely the Adivasi and *Charlanders*. To ensure that project funds are channelled to benefit the Adivasi, a development fund will be established exclusively for them; (iii) testing pilot ecological villages to the indigenous people to improve their living conditions; and (iv) inviting private commercial banks to participate in credit supply.



PART III - LEGAL INSTRUMENTS AND AUTHORITY

51. A loan agreement between the People's Republic of Bangladesh and IFAD constitutes the legal instrument for extending the proposed loan to the borrower. A summary of the important supplementary assurances included in the negotiated loan agreement is attached as an annex.
52. The People's Republic of Bangladesh is empowered under its laws to borrow from IFAD.
53. I am satisfied that the proposed loan will comply with the Agreement Establishing IFAD.

PART IV - RECOMMENDATION

54. I recommend that the Executive Board approve the proposed loan in terms of the following resolution:

RESOLVED: that the Fund shall make a loan to the People's Republic of Bangladesh in various currencies in an amount equivalent to thirteen million six hundred and fifty thousand Special Drawing Rights (SDR 13 650 000) to mature on and prior to 15 April 2039 and to bear a service charge of three fourths of one per cent (0.75%) per annum, and to be upon such terms and conditions as shall be substantially in accordance with the terms and conditions presented to the Executive Board in this Report and Recommendation of the President.

Fawzi H. Al-Sultan
President



SUMMARY OF IMPORTANT SUPPLEMENTARY ASSURANCES INCLUDED IN THE NEGOTIATED LOAN AGREEMENT

(Loan negotiations concluded on 25 March 1999)

55. The Government of the People's Republic of Bangladesh (the Government) will make available to selected scheduled banks, non-governmental organizations (NGOs) and credit management committees (CMCs) such amounts from the proceeds of the loan as will be necessary to carry out the rural finance and savings component of the project, in accordance with the loan agreement and under the respective subsidiary agreements, acceptable to IFAD.

2. The Government will cause the Local Government Engineering Department (LGED) and the project management unit (PMU) to open and thereafter maintain in a bank, satisfactory to IFAD, two project accounts in Taka, into which the Government will deposit in a timely manner from its own resources the required local counterpart funds as estimated in the annual workplan and budget (AWP/B). The project director (PD) and project coordinating director (PCD) will be authorized to operate the LGED project account and PMU project account, respectively.

3. For purposes of the rural finance and savings component, the Government will cause the Department of Agricultural Extension (DAE) to transfer available funds and other resources called for in the AWP/Bs:

- (a) to participating scheduled bank(s), in accordance with the respective scheduled bank subsidiary loan agreement(s), to carry out the credit line for short and medium-term credit subcomponent of the rural finance and savings component;
- (b) to the selected NGOs, in accordance with the respective NGO subsidiary agreement(s), to carry out the revolving funds to NGOs subcomponent of the rural finance and savings component; and
- (c) to the PMU, which in turn will make funds available to the CMCs, in accordance with the respective CMC subsidiary agreement(s), to carry out the pilot community revolving funds subcomponent of the rural finance and savings component.

4. In consultation with the cooperating institution, the participating scheduled bank(s), the selected NGOs and the CMCs will each establish and maintain revolving funds into which all net revenues from credits extended to project beneficiaries financed (directly or indirectly) by the loan will be deposited. The scheduled bank(s), selected NGOs and the CMCs will use their respective revolving funds to fund further credits to project beneficiaries in accordance with the loan agreement, at least until such date as will be specified in the relevant subsidiary agreement or, if no date is so specified, until all loan service payments have been made in full. For purposes of this paragraph, the term "net revenues" means all repayments of principal and all payments of interest, *less* reasonable operating and other costs.

5. The PMU will enter into separate contracts with each NGO selected under the project, which will provide, among other things, that the respective NGO will implement the project in accordance with the loan agreement. The PMU will submit the draft standard NGO contract to IFAD for comment and approval prior to executing any NGO contract.

6. The Government will ensure that any land acquired from the target group for purposes of the project will be properly compensated in accordance with the land acquisition laws of the Government.



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7. The Government will ensure that all project resources will be released to the project parties (including DAE, LGED, scheduled banks and NGOs) in accordance with the AWP/Bs and specific contractual arrangements. The Government will further ensure that all previous project activities undertaken by the project parties will be scrutinized by the PCD prior to the release of subsequent funds.

8. The Government will provide any project party or entity with such delegations of authority or other authorizations as may be required under its procedures to implement the project in accordance with the project's design and the loan agreement.

9. The Government will ensure that each CMC to be involved in the implementation of the rural finance and credit component will be duly formed in accordance with the terms of the loan agreement.

10. The following is an additional event for the suspension of the Government's right to make withdrawals from the loan account:

Any subsidiary agreement, or any provision thereof, shall have been waived, suspended, terminated, amended or otherwise modified without the prior consent of IFAD, and IFAD has determined that such waiver, suspension, termination, amendment or modification has had, or is likely to have, a material adverse effect on the rural finance and savings component.

11. (a) No withdrawals will be made in respect of expenditures under the credit lines through the scheduled banks subcomponent of the rural finance and savings component to any individual scheduled bank until the subsidiary loan agreement with that scheduled bank will have been duly authorized and signed by the Government and the scheduled bank.

(b) No withdrawals will be made in respect of expenditures under the revolving funds to NGOs and pilot community revolving funds subcomponents of the rural finance and savings component until the draft standard subsidiary agreement to be entered into with the NGOs and CMCs will have been approved by Fund.

12. The following are additional conditions precedent to the effectiveness of the loan agreement:

- (a) a PCD, with qualifications and experience satisfactory to IFAD, will have been duly nominated by the Government;
- (b) a PD, with qualifications and experience satisfactory to IFAD, will have been appointed by LGED;
- (c) the Interministerial Steering Committee will have been duly established;
- (c) the PMU will have been duly established;
- (d) the Project Management Committee (PMC) will have been duly established;
- (e) the Government will have prepared and submitted two project proformas (PPs), one each for DAE and the LGED, and submitted the two PPs to IFAD for its review and comment;



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- (f) the loan agreement will have been duly signed, and the signature and performance thereof by the Government will have been duly authorized and ratified by all necessary administrative and governmental action; and
- (g) a favourable legal opinion, in form and substance acceptable to IFAD, will have been delivered by the Government to IFAD.

COUNTRY DATA — BANGLADESH

Land area (km² thousand) 1995 1/	130	GNP per capita (USD) 1996 2/	260
Total population (million) 1996 1/	122	Average annual real rate of growth of GNP per capita, 1990-96 2/	2.7
Population density (people per km²) 1996 1/	930	Average annual rate of inflation, 1990-96 2/	4.9
Local currency	Taka (BDT)	Exchange rate: USD 1 =	BDT 48.5
Social Indicators		Economic Indicators	
Population (average annual population growth rate) 1980-96 1/	2.1	GDP (USD million) 1996 1/	31 824
Crude birth rate (per thousand people) 1996 1/	28	Average annual rate of growth of GDP 1/ 1980-90	4.3
Crude death rate (per thousand people) 1996 1/	10	1990-96	4.3
Infant mortality rate (per thousand live births) 1996 1/	77	Sectoral distribution of GDP, 1996 1/	
Life expectancy at birth (years) 1996 1/	58	% agriculture	30.0
Number of rural poor (million) 1/	39	% industry	17.7
Poor as % of total rural population 1/	39.8	% manufacturing	9.6
Total labour force (million) 1996 1/	61	% services	52.4
Female labour force as % of total, 1996 1/	41.8	Consumption, 1996 1/	
Education		General government consumption (as % of GDP)	13.6
Primary school gross enrolment (% of relevant age group) 1995 1/	92.0	Private consumption (as % of GDP)	79.1
Adult literacy rate (% of total population) 1995 3/	38.1	Gross domestic savings (as % of GDP)	7.2
Nutrition		Balance of Payments (USD million)	
Daily calorie supply per capita, 1995 3/	2 001	Merchandise exports, 1996 1/	3 297
Index of daily calorie supply per capita (industrial countries=100) 1995 3/	63	Merchandise imports, 1996 1/	6 898
Prevalence of child malnutrition (% of children under 5) 1990-96 1/	68.0	Balance of merchandise trade	-3 601
Health		Current account balances (USD million)	
Health expenditure, total (as % of GDP) 1990-95 1/	2.4	before official transfers, 1996 1/	-3 112
Physicians (per thousand people) 1994 1/	0.2	after official transfers, 1996 1/	-1 637
Percentage population without access to safe water 1990-96 3/	3	Foreign direct investment, 1996 1/	15
Percentage population without access to health services 1990-95 3/	55	Government Finance	
Percentage population without access to sanitation 1990-96 3/	52	Overall budget surplus/deficit (including grants) (as % of GDP) 1995 1/	n.a.
Agriculture and Food		Total expenditure (% of GDP) 1995 1/	n.a.
Food imports as percentage of total merchandise imports 1996 1/	n.a.	Total external debt (USD million) 1996 1/	16 083
Fertilizer consumption (hundreds of grams per ha of arable land) 1994-96 1/	1 316	Present value of debt (as % of GNP) 1996 1/	30.1
Food production index (1989-91=100) 1994-96 1/	103	Total debt service (% of exports of goods and services) 1996 1/	11.7
Land Use		Nominal lending rate of banks, 1996 1/	14.0
Agricultural land as % of total land area, 1994 4/	71.4	Nominal deposit rate of banks, 1996 1/	7.3
Forest area (km ² thousand) 1995 1/	10		
Forest area as % of total land area, 1995 1/	7.8		
Irrigated land as % of cropland, 1994-96 1/	37.3		

n.a. not available.

Figures in italics indicate data that are for years or periods other than those specified.

1/ World Bank, *World Development Report*, 19982/ World Bank, *Atlas*, 19983/ UNDP, *Human Development Report*, 19984/ World Bank, *The World Development Indicators CD-ROM*, 1998

PREVIOUS IFAD LOANS TO BANGLADESH

Project Name	Initiating Institution	Cooperating Institution	Lending Terms	Board Approval	Loan Effectiveness	Current Closing Date	Loan/Grant Acronym	Currency	Approved Loan/Grant Amount	Disbursement (as % of approved amount)
Pabna Irrigation and Rural Development Project	AsDB	AsDB	HC	11 Dec 78	28 May 79	31 Dec 92	L - I - 9 - BAN	USD	30 000 000	100%
Fertilizer Sector Programme	IFAD	World Bank: IDA	HC	19 Dec 79	12 Feb 80	30 Jun 85	L - I - 31 - BA	SDR	19 450 000	91.6%
Small Farmer Agricultural Credit Project	IFAD	AsDB	HC	16 Sep 80	13 Jan 81	31 Dec 85	G - I - 52 - BA	SDR	180 000	
Small Farmer Agricultural Credit Project	IFAD	AsDB	HC	16 Sep 80	13 Jan 81	31 Dec 85	L - I - 41 - BA	SDR	17 200 000	100%
Southwest Rural Development Project	IFAD	World Bank: IDA	HC	08 Sep 81	18 May 82	31 Dec 90	L - I - 73 - BA	SDR	20 450 000	61.8%
North West Rural Development Project	AsDB	AsDB	HC	09 Dec 82	12 Oct 83	31 Dec 91	L - I - 110 - BA	SDR	13 700 000	21.9%
"Small Scale Flood Control, Drainage and Irrigation Project"	IFAD	World Bank: IDA	HC	13 Dec 83	27 Jun 84	30 Jun 93	L - I - 137 - BA	SDR	10 400 000	60.5%
Grameen Bank Project	IFAD	UNOPS	HC	12 Dec 84	24 Sep 85	31 Dec 90	L - I - 161 - BA	SDR	23 600 000	100%
Marginal and Small Farm Systems Development Crop Intensification Project	IFAD	UNOPS	HC	02 Dec 86	28 Aug 87	30 Jun 96	L - I - 194 - BA	SDR	8 950 000	52.9%
Oxbow Lakes Small-Scale Fishermen Project	IFAD	UNOPS	HC	01 Dec 88	20 Oct 89	31 Dec 97	L - I - 237 - BA	SDR	5 600 000	62.1%
Grameen Bank Phase III Project	IFAD	UNOPS	HC	25 Apr 89	08 Mar 90	30 Jun 95	L - I - 239 - BA	SDR	6 200 000	100%
Smallholder Livestock Development Project	IFAD	UNOPS	HC	04 Apr 91	14 Dec 91	31 Dec 99	L - I - 280 - BA	SDR	7 650 000	72.3%
Special Assistance Project for Cyclone Affected Rural Households	IFAD	UNOPS	HC	04 Sep 91	24 Jan 92	31 Dec 99	L - I - 287 - BA	SDR	11 550 000	85.7%
Netrakona Integrated Agricultural Production and Water Management Project	IFAD	UNOPS	HC	02 Dec 93	08 Jul 94	30 Jun 01	L - I - 343 - BD	SDR	6 400 000	79.2%
Employment-Generation Project for the Rural Poor	IFAD	UNOPS	HC	12 Apr 95	24 Oct 95	30 Jun 01	G - I - 4 - BD	USD	30 000	90.0%
Employment-Generation Project for the Rural Poor	IFAD	UNOPS	HC	12 Apr 95	24 Oct 95	30 Jun 01	L - I - 378 - BD	SDR	9 950 000	27.2%
Small-scale Water Resources Development Sector Project	AsDB	AsDB	HC	06 Dec 95	10 Jun 96	31 Dec 02	G - I - 6 - BD	USD	50 000	98.0%
Small-scale Water Resources Development Sector Project	AsDB	AsDB	HC	06 Dec 95	10 Jun 96	31 Dec 02	L - I - 391 - BD	SDR	7 000 000	21.7%
Agricultural Diversification and Intensification Project	IFAD	IFAD	HC	29 Apr 97	04 Dec 97	31 Dec 04	G - I - 29 - BD	USD	50 000	98.5%
Agricultural Diversification and Intensification Project	IFAD	IFAD	HC	29 Apr 97	04 Dec 97	31 Dec 04	L - I - 443 - BD	SDR	13 650 000	15.9%
Third Rural Infrastructure Development Project	AsDB	AsDB	HC	04 Dec 97	01 Jul 98	30 Jun 05	G - I - 42 - BD	USD	50 000	60.5%
Third Rural Infrastructure Development Project	AsDB	AsDB	HC	04 Dec 97	01 Jul 98	30 Jun 05	L - I - 457 - BD	SDR	8 500 000	06.6%
Aquaculture Development Project	IFAD	UNOPS	HC	23 Apr 98	08 Dec 98	30 Jun 05	G - I - 54 - BD	USD	70 000	63.0%
Aquaculture Development Project	IFAD	UNOPS	HC	23 Apr 98	08 Dec 98	30 Jun 05	L - I - 472 - BD	SDR	15 000 000	



LOGICAL FRAMEWORK

Narrative Summary		Key Performance Indicators		Means of Verification		Critical Assumptions	
Country Assistance Strategy objectives:							
1.1.1	To increase the income and improve the livelihood of the landless and of the small and marginal farmer in the project area	1.2.1	Annual average farm income of target households increase by the end of the project	1.3.1	Health statistics	1.4.1	Political commitment and financial support at the federal and decentralized level to pursue policies in favour of the most economically disadvantaged populations
		1.2.2	Employment status	1.3.2	Project progress reports		
		1.2.3	Improvement of nutritional status	1.3.3	Project evaluation reports		
Project Development objectives (impact on the beneficiary or the system):							
2.1.1	To boost food production and livestock production of the target group in the project area	2.2.1	Increase in agricultural yield of the target group by 15%	2.3.1	PRA study	2.4.1	Sustained political commitment to address poverty issues by the Government and the project-implementing agencies
		2.2.2	Increase in live stock output of the target group by 10%	2.3.2	Project evaluation (mid-term)	2.4.2	Price stability
				2.3.3	Annual crop production survey reports	2.4.3	The target group acknowledges the objectives of the project and takes ownership
				2.3.4	Supervision reports (semi-annual)		
Project Outputs (milestones achieved through the implementation of the activities):							
3.1.1	Agricultural Development: Intensification and diversification of crop production and expansion of livestock output	3.2.1	Cropping intensity increased by 10% in the project area by the end of the project (as compared to the PRA study)	3.3.1	Baseline survey and ex-post evaluation	3.4.1	Access to markets and adequate functioning of market services.
		3.2.2	Approximately 2.5 t of seed multiplication and distribution to 11,500 farmers in the project area	3.3.2	Project progress reports (semi-annual)	3.4.2	Adoption of the newly introduced technology by the target group farmers
		3.2.3	Increase in livestock production by 10% at the end of the project	3.3.3	Project progress reports (semi-annual)		
		3.2.4	20 demand-driven technologies (livestock and food production, homestead gardening plots) developed by the end of the project	3.3.4	Project progress reports (annual)		
		3.2.5	20 number of demand driven technologies disseminated through extension services to 70 000 farmers	3.3.5	Project progress reports (annual)		
		3.2.6	6000 ha area irrigated by the project by 1 500 shallow tubewells.	3.3.6	Project progress reports (annual)		
		3.2.7	36 kilometres of farm protection embankment	3.3.7	Project progress reports (quarterly)		
		3.2.8	27 kilometres of drainage canals	3.3.8	Project progress reports (quarterly)		
		3.2.9	18 regulators/sluice	3.3.9	Project progress reports (quarterly)		
		3.2.10	3 small rubber dams	3.3.10	Project progress reports (quarterly)		
		3.2.11	2 pilot irrigation schemes	3.3.11	Project progress reports (quarterly)		
4.1.1	Rural Community Support: Establishment of a mechanism that ensures the participation of beneficiaries	4.2.1	16 NGOs selected to form groups and deliver service in "standard" areas	4.3.1	Project progress reports (quarterly)	4.4.1	Revolving funds are established at the community level for financial sustainability
		4.2.2	3 NGOs selected to form groups and deliver service in <i>Charland</i> areas	4.3.2	Project progress reports (quarterly)		
		4.2.3	3 NGOs selected to form groups and deliver service in tribal areas	4.3.3	Project progress reports (quarterly)		
		4.2.4	6 535 number of NGO groups with 2 070 landless groups, 1 310 marginal farmers groups, 2 255 small farmers groups, 650 Adivasi groups and 250 <i>Charland</i> dwellers groups (of any land holding beyond 1 ha), of the total of which 3 900 will be women groups	4.3.4	NGO reports		
		4.2.5	Training procedures manual for the target group's activities and the NGOs developed and completed	4.3.5	Project progress reports (semi-annual)		
		4.2.6	About 2 000 target groups that have received training in IGA	4.3.6	NGO reports		



	4.2.7	650 number of NGOs' staff that have received training in participatory methods	4.3.7	Project progress reports (quarterly)			
5.1.1	Rural finance and savings: Access to agricultural credit and creation of employment opportunities through income-generating activities	5.2.1	30 000 households that received training would have access to savings and credit facilities	5.3.1	Project progress reports/bank statements/NGO reports (quarterly)		
		5.2.2	Repayment rate around 95%	5.3.2	Project progress reports/bank statements/NGO reports (yearly)		
		5.2.3	USD 1.71 million disbursed as loans to 31 500 individuals or groups	5.3.3	Project progress reports (quarterly)		
		5.2.4	Amount of money accumulated as savings by a certain number of groups	5.3.4	NGO reports/Bank reports (yearly)		
		5.2.5	Increase in income by certain number of group members due to access of credit	5.3.5	NGO reports (yearly)		
		5.2.6	Diversification to other income-generating activities of the target group	5.3.6	NGO reports (yearly)		
6.1.1	Charland development: Strengthening of economic activities (and support to software services from other components) in Charland areas through flood proofing and construction of flood shelters.	6.2.1	Participatory needs assessment carried out	6.3.1	Assessment report	6.4.1	NGOs are or can be mobilized in Charland area
		6.2.2	5 000 Charland households benefited from floodproofing	6.3.2	Project progress reports (quarterly)		
		6.2.3	10 flood shelters constructed in the Charland area	6.3.3	Project progress reports (quarterly)		
7.1.1	Tribal area support: Strengthening of economic activities (and support to software services from other components) through improved village facilities and social security	7.2.1	Participatory needs assessment carried out	7.3.1	Assessment report		
		7.2.2	10 ecological villages created	7.3.2	Project progress reports (quarterly)		
		7.2.3	Village development fund established	7.3.3	Agreement with administrator and placement of fund		
8.1.1	Rural infrastructure: Improvement of rural roads, growth centres, Landing ghats and construction of embankments	8.2.1	212 kilometres of RR1 and RR2 benefiting about a million rural people.	8.3.1	Project progress reports (quarterly)	8.4.1	Maintenance of the facilities by water users' groups
		8.2.2	Construction of 1 128 m of structures on RRs	8.3.2	Project progress reports (quarterly)		
		8.2.3	12 kilometers of all-weather surfacing	8.3.3	Project progress reports (quarterly)		
		8.2.4	24 growth centres or markets rehabilitated	8.3.4	Project progress reports (quarterly)		
		8.2.5	6 number of landing ghats servicing 0.1 million rural people	8.3.5	Project progress reports (quarterly)		
		8.2.6	24 UP buildings with training facilities constructed or rehabilitated	8.3.6	Project progress reports (quarterly)		
9.1.1	Project management: Strengthening the implementation capacity of key project implementing institutions	9.2.1	Project management unit established and implementing community plans	9.3.1	Project progress reports (quarterly)	9.4.1	Management and staff of the project implementing agencies
		9.2.2	Number of meetings of the project implementing agencies held	9.3.2	Project progress reports (quarterly)		Internalize the change process
		9.2.3	Physical progress of the project on schedule	9.3.3	Project progress reports (quarterly)		
		9.2.4	Financial progress of the project on schedule	9.3.4	Project progress reports (quarterly)		

Project Components (Plan of activities)

Inputs

I	AGRICULTURE DEVELOPMENT	USD 4.9 MILLIONS (21%)			Commitment to the project's objectives and its implementation by the project implementing agencies
Ia	Extension and research				Willing staff and services are supplied by project implementing agencies
Ia.1	Provision of specific problem-solving research contracts, on-farm technology testing			Adequate demand on the part of the target group for newly introduced technologies	
Ia.2	Promotion of demonstration programmes on seed multiplication and distribution			Timely availability of budgetary resources	
Ia.3	Training for farmers on seed preservation and production techniques				
Ia.4	Provision/sale of tools, pipes, plants, seedlings of fruit or multi-purpose trees for homestead gardening				
Ia.5	Training and vaccination kits for women poultry vaccinators, and contractual research for diseases in livestock				



<p>b Support infrastructure (irrigation) Ib.1 NGO STW programs Ib.2 Provision of small water management schemes</p>		USD 2.9 million (12%)	
<p>II RURAL COMMUNITY SUPPORT II.1 Preparation and testing of PRA materials and training II.2 Skill building of the members for IGAs and women empowerment II.3 Capacity-building for smaller NGOs</p>		USD 2.4 million (10%)	
<p>III RURAL FINANCE AND SAVINGS III.1 Revolving funds for seasonal and short term loans III.2 Training in credit management and finance for NGOs</p>		USD 2.0 million (9%)	
<p>IV SUPPORT TO CHARLAND AND ADVASIS AREAS IVa Support to Charland areas IVa.1 Development of participatory needs assessment IVa.2 Selection and development of 5 000 sites for flood proofing IVa.3 Site selection and construction of 10 flood shelters IVb Support to Advasis Areas IVb.1 Development of participatory needs assessment IVb.2 Selection and development of 10 sites for pilot ecological villages IVb.3 Arrangement for administration of an Advasis Development Fund and placement of fund</p>		USD 8.1 million (35%)	A PMU that has the authority to carry out coordination of activities
<p>V RURAL COMMUNITY INFRASTRUCTURE V.1 Selection and construction of about 210 km of RRI and RRI roads and about 1 128 m of structure V.2 Selection and rehabilitation of 24 growth centres and small markets V.3 Construction of 6 landing <i>ghats</i> for water transport V.4 Rehabilitation of 24 UP buildings</p>		USD 2.7 million (12%)	
<p>VI PROJECT MANAGEMENT VI.1 Establishment of a PMU VI.2 Set-up of monitoring and evaluation unit VI.3 Establishment of a liaison unit (for IFAD projects) within DAE headquarters in Dhaka</p>			

COSTS AND FINANCING

Expenditure Accounts by Components (USD '000)

	Support to Adivasi and Charland Areas							Total
	Agricultural Development	Rural Community Support	Rural Finance and Savings	Charland Development	Adivasi Area Development	Rural Community Infrastructure	Project Management	
I. Investment Costs								
A. Earthworks	-	-	-	-	-	2 725.1	-	2 725.1
B. Civil works	2 000.1	-	-	1 405.6	360.0	5 365.1	109.7	9 240.4
C. Equipment and furnitures	263.1	32.9	-	-	-	38.2	101.6	435.8
D. Vehicles	402.3	21.9	-	-	-	217.2	290.3	931.8
E. Training	1 707.6	2 873.1	28.4	-	-	-	81.1	4 690.2
F. Technical assistance								
1. Local consultants	429.6	319.1	240.8	31.3	31.3	-	956.5	2 008.7
2. Expatriate consultants	-	-	-	-	-	-	307.4	307.4
Subtotal technical assistance	429.6	319.1	240.8	31.3	31.3	-	1 263.9	2 316.1
G. Credit line	-	-	2 176.7	-	-	-	-	2 176.7
H. Adivasi fund	-	-	-	-	461.9	-	-	461.9
Total investment costs	4 802.6	3 247.0	2 445.9	1 436.9	853.2	8 345.6	1 846.6	22 977.9
II. Recurrent costs								
A. Salaries and allowances	110.4	-	-	-	-	193.0	636.8	940.1
B. Other operating costs	8.4	-	-	-	-	84.3	172.7	265.4
C. Vehicle O&M	456.3	-	-	-	-	73.0	242.3	771.6
D. Equipment O&M	41.5	-	-	-	-	38.6	58.5	138.5
E. Civil Works O&M	76.8	-	-	-	-	532.8	24.0	633.6
Total recurrent costs	693.4	-	-	-	-	921.6	1 134.3	2 749.3
Total PROJECT COSTS	5 496.1	3 247.0	2 445.9	1 436.9	853.2	9 267.2	2 980.9	25 727.2
Taxes	788.0	305.4	2.8	168.7	43.2	826.7	296.9	2 431.7
Foreign exchange	1 078.5	318.6	655.9	281.1	210.6	1 281.0	662.0	4 487.6

**Disbursement Accounts by Financiers
(USD '000)**

	IFAD		Beneficiaries		World Food Programme		Participating Banks		Government		Total		For.	Local	Duties
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Exch.	(Excl. Taxes)	and Taxes
1. Earthworks	-	-	273	10.0	1 717	63.0	-	-	736	27.0	2 725	10.6	-	2 725	-
2. Civil works	7 854	85.0	-	-	-	-	-	-	1 386	15.0	9 240	35.9	1 848	6 283	1 109
3. Vehicles, equipment and furniture	839	61.4	-	-	-	-	-	-	528	38.6	1 368	5.3	703	137	528
4. Training, technical assistance and studies	6 537	93.3	-	-	-	-	-	-	469	6.7	7 006	27.2	761	5 776	469
5. Credit line	1 524	70.0	-	-	-	-	653	30.0	-	-	2 177	8.5	653	1 524	-
6. Adivasi Fund	416	90.0	46	10.0	-	-	-	-	-	-	462	1.8	139	323	-
7. Salaries and allowances	-	-	-	-	-	-	-	-	940	100.0	940	3.7	-	940	-
8. Recurrent costs(excl. salaries and allowances)	1 452	80.3	-	-	-	-	-	-	357	19.7	1 809	7.0	384	1 099	326
Total	18 622	72.4	319	1.2	1 717	6.7	653	2.5	4 416	17.2	25 727	100.0	4 488	18 808	2 432





IMPLEMENTATION ARRANGEMENTS AND RESPONSIBILITIES

Agricultural Development

1. The component will be flexibly implemented on the basis of successive AWP/Bs to be discussed with the beneficiaries. In a wider context, the project will be an important subset to the regular, ongoing responsibilities of DAE for the overall farming community of which the IFAD-targeted households will form about 10%. The targeted extension delivery will be carried out by DAE in a collaborative effort with NGOs for the marginal farmers and home-gardening messages for the landless and women. The DEPC and TAECC will lead in formulating a new extension action plan on NAEP issues. Improved home gardening will be promoted by local NGOs with specialist technical advice from DAE whenever possible. The major clients are likely to be landless and/or women's groups where horticultural packages are mostly demanded.

2. **Participatory crop research.** The PMU will contract the Farmers' Technology Needs Assessment Survey to a suitable research organization (such as the International Rice Research Institute (IRRI), the Bangladesh Rice Research Institute (BRRI), the Bangladesh Agricultural Research Institute (BARI), the International Jute Organization (IJO), the Bangladesh Jute Research Institute (BJRI), etc.). Research themes to be undertaken will be discussed, approved and then reviewed by the following bodies:

- (a) The National Agricultural Technical Coordination Committee, comprising extension representatives from the Government, NGOs, the private sector and representatives of research bodies;
- (b) Agricultural Technical Committees, each covering a number of districts in similar agro-ecological zones and comprising local representatives of extension agencies and research institutes where some selected NGOs could be co-opted to represent the beneficiaries; and
- (c) research-extension review workshops between DAE staff and local research institutes and representatives of concerned NGOs and beneficiaries to discuss and finalize the research themes for the investigation and contractual research, as well as reviewing the research results, their translation into extension messages and farmer feedback.

3. **Informal seed multiplication and distribution** will be coordinated by DAE in collaboration with selected local NGOs. It is expected to form and support about 48 groups to be engaged in informal seed multiplication. The same local NGOs will arrange credit facilities for seed equipment, tools and inputs, etc. The Seed Certification Service at the district level will assist in field inspection mid-season and pre-harvest to demonstrate and train farmers as required. NGOs will supervise threshing, seed cleaning, bagging and storage. The PMU will procure and arrange deliveries of F2 level paddy seed from the Bangladesh Agricultural Development Council (BADC) or commercial suppliers for multiplication by seed growers. The latter will handle distribution sale in exchange of the improved seed in their immediate vicinity.

4. **Household livestock expansion** will be carried out by local NGOs working with most groups of farmers, but particularly with landless and marginal farmers where livestock-based,



income-generating activities are regularly practised. The Department of Livestock Services will provide animal husbandry and veterinary advice and training of village level poultry vaccinators.

5. **Extended shallow tubewell irrigation** will be promoted by DAE in collaboration with local NGOs, who will form and service the irrigation groups as well as facilitating their credit uptake for the equipment and inputs. The LGED will be responsible for implementing the protective embankments, rubber dams and gravity-irrigation structures. Prioritization of embankments and irrigation structures will be based on the PRA and consultation with beneficiaries. Selected schemes, reviewed with the potential beneficiaries, should benefit at least 50% of target group families. The local NGO will form beneficiary groups within the embankment-protection area and determine their contribution and how “scheme-management committees” will organize operation and maintenance. Only when all conditions have been fulfilled will LGED construction start.

Rural Community Support

6. NGOs will be selected on the basis of criteria acceptable to IFAD. Selection criteria will include: (i) valid registration with government authorities; (ii) experience in agriculture and community development; (iii) experience in providing assistance to the groups; (iv) a minimum number of years of proven experience in formation, training and management of groups; (v) proven capacity for rural credit operation, both in disbursement and in recovery, and a sound credit management system, including proper documentation; and (vi) experience in rural credit and savings for women. The PMU will be responsible for preparing the tender evaluation report and draft model contracts. For the *Charland* and Adivasi areas, proven competence, credibility, and extensive experience in working with *Charland* and the Adivasi population, respectively, will be required. Two to four NGOs will be contracted under the project to undertake, *inter alia*, the following activities: (i) promotion, formation and strengthening of management support for target groups and the labour-contracting societies (LCSs); (ii) carrying out training for group leaders, group members and, if required, for DAE field and other staff in participating processes; (iii) pre-credit activities, such as credit outreach, delivery and recovery backstopping and monitoring, and promotion of savings; and (iv) promotion and development of participating monitoring by group.

7. Links with DAE and LGED will be maintained through routine meetings of the TAECCs and DEPCs, which NGOs in each district will attend. In addition, NGOs will nominate one representative to attend the PMC. The NGOs participating in the project will determine their own mechanisms for liaising with each other in the districts for project purposes.

Rural Finance and Savings

8. **Credit line through banks** The financing arrangements for the agricultural credit line for lending to NGOs and directly to beneficiary groups will be detailed in a Subsidiary Loan Agreement that will include the following provisions:

- (a) each participating bank will initially disburse from their own funds, then claim for reimbursement;
- (b) the participating banks will also establish a Revolving Account to which all recoveries and interest, and net of operating costs are deposited; it will be used for the expansion of lending to the target groups;
- (c) bank loans to NGOs for retailing will be repaid by the NGO within 18 months, where the end-use is projected to be short-term (one year), and within 36-60 months in the case where the loan is used to finance medium-term investments (three years);



APPENDIX V

- (d) individual borrowers will be required to contribute 15% of the total investment cost. No equity contribution will be necessary in the case of short-term capital loans. No collateral will be required for bank loans to group members. However, group members will have to deposit an amount equivalent to 10% of the loan to a group-owned and interest-bearing account. These funds will be blocked for the duration of the loan and can be used by the bank to partially recover its losses in the event of default by the group;
- (e) bank loans to group members will be at the prevailing interest rates, currently 12.5% per year for crop loans and 13.5% for other agricultural and rural credit;
- (f) banks will provide a fee rate, negotiated with the NGO, to be linked as closely as possible to the rate of recovery; and
- (g) loans to NGOs for retailing will be provided by participating banks, with an interest spread to be negotiated between the bank and each NGO to compensate the NGO for assuming the credit risk and administration and supervision costs associated with retailing rural loans. The NGO will charge its normal lending interest rate on loans to borrowers. These interest rates currently range between 20-30% per year.

NGO Revolving Funds

9. The Revolving Funds for NGOs will be provided by the Government through the PMU on the following terms and conditions:

- (a) the funds will only be used for on-lending with priority being given to women's groups as well as groups formed in *Charland* or tribal areas. For this purpose, each NGO will maintain records indicating the profiles of borrowers and the end-uses of credit funds disbursed;
- (b) the NGOs will be required to deposit all loan repayments into the Revolving Fund's interest-bearing account, with two thirds of the interest collected. The rest of the interest spread will be used to cover loan administration, supervision and recovery costs incurred by the NGOs; and
- (c) the PMU will disburse the funds to the NGO in tranches, based on a positive feedback from the credit monitoring system about the targeting, the use of funds and the recovery; and the emergence of at least 10% among the groups, to undertake savings and credit activities at community level.

Pilot Revolving Fund

10. The Pilot Revolving Funds for selected communities will be provided by the Government through the PMU with the support and under the supervision of NGOs on the following terms and conditions:

- (a) the funds will only be used for on-lending to IFAD's target groups, for which an eligibility certificate will be issued by the NGO(s) in charge after the necessary training and a minimum of six months of regular and stabilized group savings in a specific interest bearing account. The formation of a CCMC will be a prerequisite for the start-up of credit operations;
- (b) the Revolving Fund placed with the group will be equal to three times the value of the accumulated savings evaluated at date of value three months before the day the Revolving Fund is requested for placement;



- (c) the interest rate charged to the borrowing group members will be decided by the CCMC with the approval of the PMU (the actual NGO rate is 16% per annum). A maximum of 2% of the loans recovered will be paid to the NGO as a service charge (to be decided by the CCMC with the approval of the PMU), and a maximum of 3% will be used to cover the operating costs of the CCMC (transportation, stationery and presence fees); and
- (d) interest paid on the savings will be one point above bank rate to stimulate savings through the group.

Rural Community Infrastructure

11. The implementation will follow a participatory approach. In consultation with the beneficiaries, the project will:

- (a) undertake a PRA to prioritize the schemes based on poverty criteria acceptable to IFAD;
- (b) involve the LCSs and women maintenance groups in small-scale water resources development, embankments, and roads activities. These groups are formed with the assistance of NGOs and consist largely of the poor;
- (c) involve beneficiaries in the planning of the growth center and small market activities, following government guidelines on participation for growth centre planning. It is of the utmost importance that the Union Parishad (UP) and *thana* officials are fully involved in all activities, as they will ultimately be the ones responsible for most of the O&M of the infrastructure improvements created by the project.

Beneficiary Planning, Monitoring and Evaluation

12. **Beneficiary participation.** The first PRA to be carried out at the beginning of the project will provide baseline information for monitoring and impact evaluation. Implementation will be carried out in consultation with all partners including NGOs and community groups. Because the project activities will be demand-driven, planning will be based on an ongoing process of participatory project identification, followed by technical and economic appraisals. The AWP/B, to be prepared by DAE and LGED for individual years, will reflect the evolving requests of the beneficiaries. Accordingly, both project *pro-forma* (DAE and LGED) will be revisable within the required time frame.

13. The beneficiary workshops in the Mymensingh and Jamalpur districts in April 1998 and the Stakeholders' Workshop in Mymensingh in October 1998 contributed to finalizing project design in that it identified the wide spread of potential IGAs by beneficiaries, and confirmed the comparative advantage of smaller local NGOs in supporting those activities. Linkages between DAE with groups and the NGOs serving them were indicated as desirable.

Evaluation

14. Evaluation will be carried out at two stages:

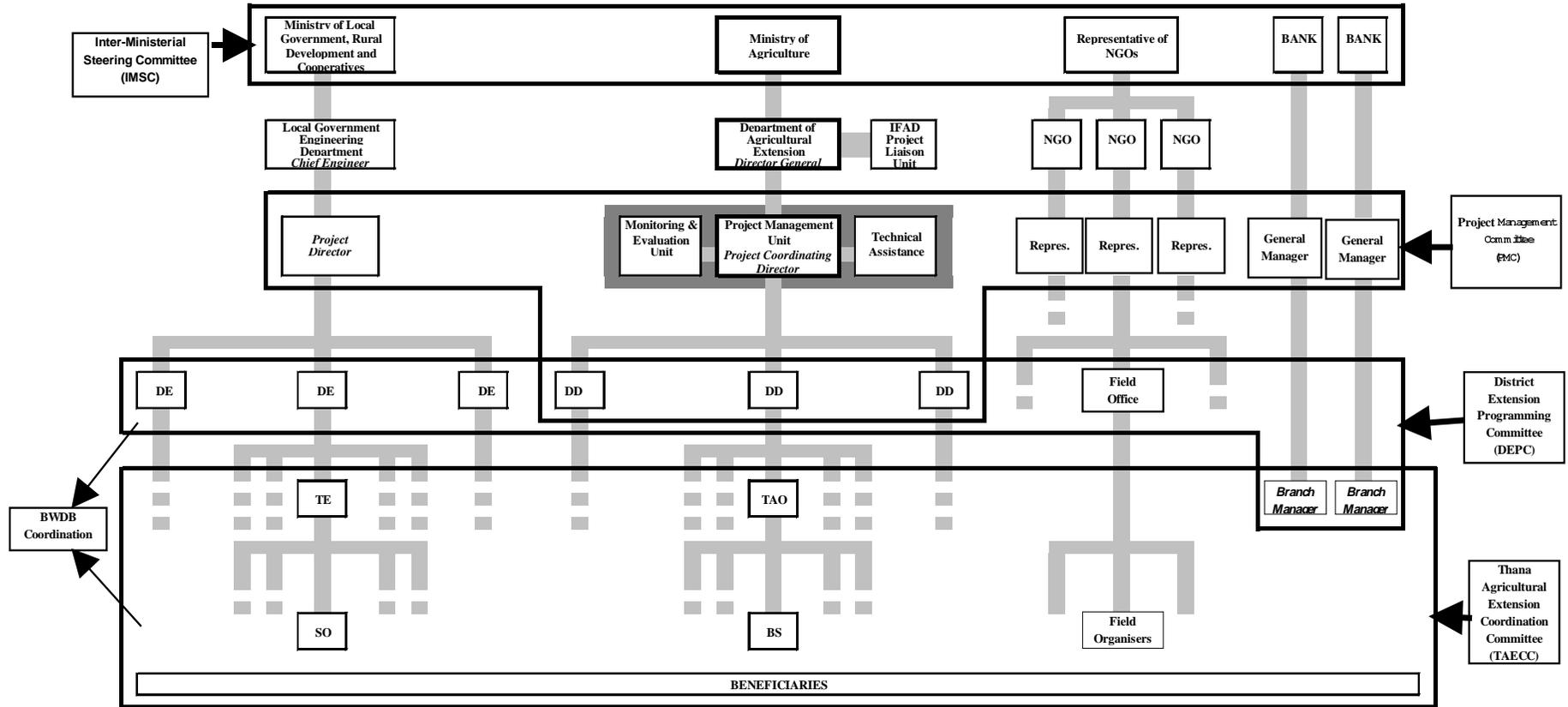
- (a) a **mid-term review** in Year Four to determine the initial impact of the project; to be used to adjust the design and improve implementation and operational activities and systems; and
- (b) **final evaluation** at the end of the project to determine the overall impact on the target group and draw lessons for the design of future projects.



APPENDIX V

15. The two stages will be carried out by independent entities. The main emphasis of the evaluation will be to examine the impact of the project on the target group, but it will also review the performance of the institutions responsible for executing the project.

Project Organizational Chart



- BS Block Supervisor
- DE District Engineer
- DD Deputy Director
- SO Social Organizer
- TAO Thana Agricultural Officer
- TE Thana Engineer



FINANCIAL AND ECONOMIC ANALYSIS

Benefits from Agriculture

1. Intensification of rice cropping depends on the increased use of inputs including the regular purchase of certified high-yielding variety (HYV) seed (every two to three years), the increased use of fertilizer and the adoption of integrated pest management (IPM) techniques for controlling rice pests. Some 34 varieties of improved rice have been released by BARI. This technology is well established, readily available and adopted by large farmers. Small farmers have not been able to adopt it in the past because they have been unable to obtain credit at a reasonable price or because their growing environment is too risky because of flood or draught damage. The project will make credit available to small farmer groups for increased purchase of inputs, and provide the possibility to control flood damage by the construction of embankments and drainage. In addition, medium-term credit will be available for the purchase of shallow tubewells. With credit, improved flood protection and/or irrigation, the project will: (i) promote irrigated *boro* where feasible; (ii) replace local varieties of transplanted *aman* with HYVs where flooding is less than 90 cm; (iii) once better yields are obtained, replace broadcast *aus* with other crops such as pulses or summer vegetables; (iv) apply increased fertilizer and IPM techniques; and (v) use inter-row weeders.
2. Diversification into vegetables and fruits does not require the adoption of new technology for those crops; planting material is generally available from other growers or local private nurseries and seed either from BARI or from overseas suppliers. Flood protection, drainage and irrigation will permit additional crops to be grown through: (i) the use of HYVs developed by BARI, especially short-duration crops; (ii) the correct application of fertilizer (enabled by provision of credit); and (iii) use of two-wheel tractors to enable more timely cultivation of land (these may be purchased with medium-term credit provided by the project).
3. Non-crop agricultural technology includes use of better management techniques and disease control for small poultry enterprises and adoption of a variety of fish culture systems and nurseries of improved and fast growing tree species. The project will also generate more suitable technology by adopting national research for the project area through the proposed contract research system.
4. **Production of seed.** The project will support the farmers in growing high varieties of seed for their own use. It was assumed that only 25% of the farmers will be using HYV seeds. The total quantity of seed to be produced at full development will be about 240 t per year.
5. **Incremental production.** Total annual incremental crop production at full development at year 10 is estimated as follows:

Incremental Production of Different Types of Paddy and Non-Paddy Crops

Crop	Production (MT) “Without Project”	Incremental Production (MT)	Percentage Change
T.Aman (local)	7295	714	10
T.Aman (HYV)	30174	15488	51
Boro (HYV)	19508	15084	77
Boro (local)	321	156	49
T.Aus (HYV)	14605	-2006	-14
B.Aman (local)	282	13	5
Wheat	7297	-5083	-70
Potato	4280	1338	31
Vegetable	9052	2820	31

* Minus sign indicates reduction in production due to the reduction of planted area.

Source: Mission Estimates

Financial Analysis

6. To test the financial viability of the project, five representative farm models were developed. Similarly, for income-generation, poultry-rearing and fisheries' activities were chosen as representative of IGA enterprises, which include beef fattening, growing roses, stall-fed goat rearing, agroforestry development, village nursery, etc. Finally, to show the financial viability of the project support to promote shallow tubewells and high-yielding varieties of seeds for multiplication, two group activity models were developed: tubewells and seed models. The table below summarizes the results of the farm, IGA, group activity and *Charland* models:

Models	Net Income (before family labor and financing)		Net Incremental Net Income	
	Without Project (BDT/farm)	With Project (BDT/farm)	BDT/farm	%
Farm models				
Irrigated	6879	12164	5285	77
Rainfed	6875	8940	2065	30
Mixed	10654	12027	1373	13
FCD	6130	8052	1922	31
Homestead	1543	2336	793	51
IGA models				
Poultry	-	6485		
Fisheries	-	4965		
Group activity models				
Tubewells	-	15475		
Seed	-	5155		
Charland model	7856	11981	4125	53



APPENDIX VI

Economic Analysis

7. The economic viability of the project has also been estimated and a sensitivity analysis has been carried out on the basis of the following assumptions:

- (a) increased agricultural production was derived from the farm household model incremental benefits expressed in economic terms by using the appropriate economic prices for inputs and output and the number of households expected to participate in the project for each type of farm model. The phasing of the households is based on the rate at which small farmer groups are formed;
- (b) road benefits were estimated by calculating the operating cost savings excluding time value accruing to motorized and non-motorized traffic users as a result of road improvements. Average vehicle operating cost savings per kilometre were then applied to estimates/projections of traffic on both feeder and rural roads;
- (c) benefits from IGAs were derived from the financial net of the individual activities converted into economic values terms using the standard conversion factor and the number of IGAs expected to be established as a result of the project;
- (d) benefits from the *Charland*;
- (e) financial costs have been adjusted to economic terms by: (i) excluding price contingencies, duties and taxes; (ii) multiplying the local content of costs by a Standard Conversion Factor of 0.9; and (iii) excluding credit funds and other funds for which quantification of benefits is not feasible; and
- (f) ongoing recurrent and replacement costs have been estimated for the period following project implementation.

Overall Economic Rate of Return and Sensitivity Analysis

8. The overall ERR of the project is 18.7%. A 10% increase in costs or a 10% decrease in benefits reduce the rate of return by about 2%. A 10% decrease in costs and a 10% increase in benefits increase the return by about 2%. A one year lag in benefits reduces the return by 3%.