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Netrakona Integrated Agricultural Production and Water Management Project
Completion Evaluation

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The People's Republic of Bangladesh
Tending vegetable seedlings
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The People's Republic of Bangladesh
Netrakona Integrated Agricultural Production and Water Management Project (Loan no. 343-BD)
Completion Evaluation

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ABBREVIATIONS AND ACRONYMS

AB	Agrani Bank
AR	Appraisal Report
ADIP	Agricultural Development and Intensification Project
BWDB	Bangladesh Water Board
CBO	Community-based Organizations
CE	Completion Evaluation
CPR	Completion Project Report
DAE	Department of Agricultural Extension
DG	Director General
GDP	Gross Domestic Product
GOB	Government of Bangladesh
IGA	Income-generating Activities
IMPSC	Inter-Ministerial Project Steering Committee
LGED	Local Government Engineering Department
MIS	Management Information System
MES	Monitoring and Evaluation System
NIAPWMP	Netrakona Integrated Agricultural Production and Water Management Project
O&M	Operations and Maintenance
PKSF	Palli Karma Sahayak Foundation
PP	Project Proforma
RLF	Revolving Loan Fund
TOR	Terms of Reference
T&V	Training and Visit System

Bangladesh
Netrakona Integrated Agriculture and Water Management Project
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Agreement at Completion Point[1]

Lesson one: Project preparation, design and management issues

- General findings: The evaluation team found that the documentation of the prevailing situation at project start was wanting: there was no baseline study of the socio-economic situation that the project activities were to address and modify, nor was there a detailed Log-frame style analysis indicating the objectives in any detail. The project was rather slow in collecting this basic information and in establishing the general management information system of which M&E should be a routine part.

  It was found that in certain instances the lack of clear and specific objectives had led to a dispersion of activities rather than to a targeted and efficient effort directed at the intended key beneficiaries.

  It was found that it would have been very useful during the start-up phase, if the designated project co-ordinator (now project director, PD) had been involved in the project preparation, so as to acquire maximum insight into the basic knowledge, premises and strategies on which the project rested.

  It was found that the long time requirement for revising the Project Proforma (PP) had triggered delays in the start up of certain project activities, which again had hampered other.

  GoB representatives found that UNOPS' supervision was less than satisfactory, being too superficial and distant to carry out follow up. Further, UNOPS was unduly slow in responding to requests and/or inquiries. IFAD informed the workshop on the present pilot on direct supervision.

- It is recommended that a review of all on-going IFAD projects be undertaken to examine the situation of baseline survey and the existence and quality of M&E systems.

  It is recommended that in the future the designated PD shall be involved in project planning.

  It is recommended that GoB examine ways to ensure higher flexibility in implementing and/or revising PPs. Secondly in designing future projects, IFAD shall pursue the precise definition of all components to the greatest possible extent.

  It is the recommendation of GoB that IFAD increases the number of directly supervised co-operations and ensures some kind of field representation to facilitate decision-making and follow up.

- Follow up: IFAD/PI shall draw up a short descriptive-analytical paper on the status of baseline/ basic information and the M&E systems within the on-going projects, as well as a short proposal for undertaking a more detailed analysis. On the basis of the latter, an action plan - to remedy whatever

[1] This agreement reflects an understanding among the core partners in the evaluation process to adopt and use the learning and recommendations of the Netrakona evaluation in reviews of on-going rural development projects/programs and-or design of future ones within the realm of MoA. The agreement was the outcome of the discussion of the partners mentioned below at the ACP workshop, held in Dhaka on 18th January 2003.
The core partners included: MoA/DAE; BWDB; LGDE; Agrani Bank; NGOs; UNOPS; IFAD (Asia and Pacific Division (PI) and Office of Evaluation and Studies (OE)

insufficiencies have been identified - shall be drawn up in collaboration and agreement with the various authorities concerned. As a minimum, the identified insufficiencies shall be addressed and followed up by future supervision missions. More ambitiously, a review and improvement of the M&E systems could be done within the framework of IFAD's new M&E guide.

The GoB/DAE shall commit that in future programs, the designated PD shall be involved in the project preparation from as early a stage as possible.

The commitment and/or mandate to revise the PP modalities lie outside the workshop, but there was agreement to record the recommendation, and certainly IFAD will commit to a detailed preparation of its future projects.

Lesson two: Participation – instrument or objective?

- General findings: The evaluation found that the project documents deal with the concept of participation in many different ways, and often without making fully clear whether "participation" is an objective in itself, or rather an instrument/strategy to reach the objectives. Sometimes participation is considered an objective or a good in itself, e.g. when group formation means the establishment of sustainable self-help groups facilitating the empowerment of the groups of rural poor. At other times, participation is seen as instrumental to larger project objectives, i.e. as an efficient way of identifying specific project activities, of undertaking extension, of ensuring maintenance etc. Finally, participation can mean contributions of land or labour from beneficiaries as input to the project.

  There may be perfectly legitimate reasons for using the term in these different ways in different situations, but the use should always be based on a conscious understanding of the operational implications in specific context. When participation is an objective, you will seek all possible ways to attain it – allocate necessary resources and ensure their application to reaching the objective. If participation is instrumental, you will look at it essentially from an efficiency/effectiveness point of view – if it does not produce results, you can modify or seek other modes of reaching the objective.

  The unsystematic use of the term has meant that in several instances, insufficient attention has been paid to whether institutions and other key partners had the necessary capacity or resources to handle tasks assigned to them. Further, at the time of the evaluation it also led to debate as to whether the "groups formed" were actually supposed to continue - or not - beyond project closure to facilitate continued "empowerment". For some partners it may have been an implicit objective in any case, for others not so.

  The team found that the practice of requesting "voluntary donations" of land was dubious, as donations are rarely voluntary, and also the practice was increasingly out of line with general development practice.

  It was found that the Union Parishads (UP) had no role in the project governance structure, even if they were the only elected representatives of the beneficiaries of the area. However, opinions differed much amongst participants as to the likely usefulness of involving UPs in all aspects of project preparation and implementation, not least in relation to the promotion of the interest of the rural poor.

- Recommendation: It is recommended that a review of the use of the term "participation" be undertaken in on-going IFAD projects, first on the basis of project documentation and subsequently in respect to the actual situation in the field. The basic aim would be to sort out the objectives from the instruments in order to either revise documents and/or reallocate resources, if so needed.

  On the issue of land donations, it was recommended that IFAD consider adopting the World Bank standard (OP4.12) which deals with compensation in connection with involuntary resettlements.

  IFAD and its partners should consider options for allowing the democratic representatives of the

beneficiaries a more active role in project design and overall implementation.

- Follow up: IFAD/PI shall initiate the desk study of "participation", and the subsequent comparison with the field situation jointly with the authorities. The outcome shall be an action plan – if so warranted - for possible revision of documents and/or project allocations.

  IFAD/PI shall undertake discussion with the authorities to review options for allowing the local elected bodies a larger, but proper, role in decisions on relevant project issues, in view of strengthening the voice of the rural poor.

  In relation to the issue of land donations, the IFAD/OE commits to bring the issue to the attention of IFAD senior management in order to ensure IFAD alignment with other donors' practice.

Lesson three: Support to rural credit – Income Generating Activity versus Agricultural Credit

- General findings: The evaluation found that the separation between landowners and landless was somewhat artificial for the purpose of designing a practical credit component. Ultimately 80 % of rural people live from agriculture - even if their access to land derives from very different formal-legal arrangements – so in a way the sharp divide between agricultural and IGA credit is artificial. Rather, a more seamless credit system should be considered.

  Further, the team found that given the high level of dependence on agriculture, more focus and effort should have been put on ensuring the workability of the agricultural credit sub-component. It was found that the provision of credit without other services, such as extension or marketing, was insufficient. Also, the banking services (advice and outreach) were insufficient for the tasks and performance expected.

  Finally, the team found that a solution should be defined to the issue of the "revolving loan fund" (RLF), being operated by the NGOs for a 5-year period only, and its proposal was to transfer the RLF to Palli Karma Sahayak Foundation (PKSF).

  IFAD/PI has commented that one should consider a programme, which would tie extension to bank credit, rather than credit to extension. Further, IFAD/PI strongly holds that a targeted approach to credit can be a way of ensuring that that poorer groups are not excluded - a likely consequence of a seamless system! Finally, IFAD/PI noted that PKSF would not be willing to take over the RLF in its entirety, as it focuses on the landless. However, it might possibly be an option for those NGOs that are also PKSF members.

- Recommendation: While the workshop agreed that given proper modalities and conditions the banks could have a desirable and larger role in agricultural credit, no specific recommendation could be made, as GOB and IFAD policies do not meet. However, a solution for the RLF should be pursued urgently, whether with PFSF or Sonali Bank.

- Follow up: IFAD is committed to review on a continuous basis the options for developing an agricultural credit system, and in particular IFAD's possibilities for contributing thereto. As for the RLF, IFAD shall undertake discussions with PKSF about taking over one part of the RLF and with Sonali Bank on the remainder.

Lesson four: Sustainability Issues

- General findings: The evaluation found several apparent signs of lack of sustainability of project results: the groups formed tended to dissipate, the maintenance of rural infrastructure was wanting, the agricultural extension needed to be followed up for many farmers to benefit fully, etc.

  The identified reasons for the situation were many, but might be grouped into two main groups:

first, lack of real participation and therefore no real ownership by supposed beneficiaries, and lack of funding for public goods or alternative maintenance systems relying on popular responsibility.

- Recommendation: The answer to the issue of sustainability of the groups depends partly on the above discussion on objectives versus instruments. Only once it has been clearly established if all groups are actually expected to continue or not, can it be decided how to address the issue operationally. As for physical maintenance, the team recommended to be more hesitant in undertaking rehabilitation for which maintenance funds shall be required subsequently, and secondly to find alternatives to public funding (but no specific proposals were put forward). GoB representatives recommended that the modalities for maintenance funding should be developed no later than at appraisal, and if no satisfactory solution could be found, then, little new construction or rehabilitation should be done.

- Follow up: IFAD/PI shall ensure, in collaboration with the authorities, that proper and sufficient resources are allocated to obtain the expected performance and results from the groups formed; see follow up under lesson two above. As for the physical maintenance, IFAD shall review the situation in its other projects, in view of identifying problems and solutions in cooperation with the authorities.

Lesson five: Agricultural Research and Extension

- Findings: The evaluation found that the participatory needs assessment undertaken to guide the extension was wanting, or more precisely it was not really participatory and therefore did not allow for adequate selection of issues and messages. Also, the farm-based research (FBR) was not sufficiently based on real needs assessments, and did not pursue the research with sufficient focus on the ultimate users.

  Thus, even if the agricultural component was clearly the most successful component, it could well have been even more successful, if it had used and harvested the benefits of a well targeted and adapted extension system.

- Recommendation: The present system for participatory planning (FINA and UAEP) should be improved so as to produce more proper needs assessment. Also, more co-ordination by various field organisations of their respective needs assessments could possibly lead to better co-ordinated efforts and response to broader needs.

  There are differing recommendations on how to improve the quality of FBR. The evaluation team recommends than better expertise should be used in the FBR. On its side IFAD/PI would rather recommend small-scale pilot schemes within projects, and leave more serious research to actual research institutions.

- Follow up: IFAD/PI will review the options for further assisting the quality of needs assessments work within the on-going projects and discuss these options with the authorities with a view to improving the focus on FBR and extension messages.

The People's Republic of Bangladesh
Netrakona Integrated Agriculture and Water Management Project
(Loan no. 343-BD)
Completion Evaluation

Executive Summary

I. BACKGROUND

A. The Completion Evaluation

1. The Netrakona Integrated Agriculture and Water Management Project (NIAPWMP) was implemented by the Government of Bangladesh (GOB) over a seven-year period from 1994 to 2001. A Completion Evaluation (CE) was undertaken in September-October 2002 and this is the report on its findings.

2. The mission used the Project Completion Report (PCR) of June 2001 and the impact study carried out by Kranti Associates for the PCR as key inputs for the CE, in accordance with the design of the approach paper. While both documents are valuable, they were not designed with the CE in view. At the same time the evaluation design did not require a full validation of this preliminary work. Thus, the present report is a qualified mixture of the above-mentioned preparatory work and the team's observations, findings and analysis.

3. The objectives of the CE were:

- To analyze the project's overall design and implementation experience.
- Develop a series of insights and recommendations that could assist in improving the design of future and implementation of on-going IFAD-supported projects in Bangladesh.
- Identify a series of (policy) insights that could form the basis for future dialogue with the GOB and other partners.

B. The Country

4. Bangladesh is a small country covering only 144 000 km^2, with a population estimated at over 133 million (2001) and a population density of 924 persons/km^2 – one of the highest in the world. About 75% of the population live in the rural areas and each cultivable hectare supports from four to seven people. Over time, the population growth has declined to about 1.8% per annum, nevertheless the ever-increasing population is placing a severe strain on the country's natural resources.

5. Despite achieving near self-sufficiency in rice production, the performance of the sector remains low compared with many other Asian countries. Rice accounts for 75% of the cropped area. Wheat production, which was almost non-existent in Bangladesh in 1973, grew by almost 25% per year between 1975 and 1985. The relatively high growth rate recorded in cereal production between 1980 and 1990 was largely due to the adoption of high-yielding varieties, increased use of fertilizer and the expansion of irrigation. More recently, food grain production has stagnated, and the growth in the agricultural sector stems from incremental production in the fisheries and livestock sub-sectors, both of which accounted for increases of more than 8% in 1997 and 1998.

C. IFAD Support for Bangladesh

6. Since 1979, IFAD has financed 19 projects in Bangladesh for a total loan commitment of more than USD 288 million. The projects were aimed largely at supporting Bangladesh's overriding objective of achieving food self-sufficiency through financing water resource development and credit. Since 1987, the Fund's assistance has been directed towards the needs of vulnerable groups, namely women, the poor and the landless. The main objectives of the projects have been to increase household

food security, mobilize stakeholders and provide credit for on- and off-farm activities.

II. THE PROJECT

A. Origin of Project

7. The project evolved out of the 1986 General Identification Mission that identified Netrakona as a suitable area for IFAD assistance. With an initial focus on irrigation and flood control, a follow-up IFAD mission in 1992 recommended that the project scope be expanded to cover on-farm water management, improvement of cropping practices, closer extension follow-up and provision of credit to the target groups.

B. Project Rationale

8. Poverty is widespread in Netrakona (indeed it is one of poorer districts of Bangladesh) and it is highly vulnerable to flooding. Agriculture is the principal economic activity, and there is limited scope for the development of industry or the service sectors. About half the households consist of small and marginal farmers, and there is potential to raise the production of food and other crops. The project aimed at increasing, on a sustainable basis, the incomes and food security of marginal and small farm households to arrest the process of marginalisation and landlessness.

C. Project Area and Target Group

9. Area. The Netrakona district, which is located about 160 km to the north of Dhaka and is bordered on the north by India, has a total land area of about 281,000 ha. As of mid-1992, the population of the district was estimated at 1.9 million, of which about 97% classified as rural. There are no large urban centres, and the district headquarters, Netrakona, which has a population of about 50,000, is the only town classified as an urban area under the 1988 census.

10. Target groups. The principal target groups of the project agricultural activities were marginal and small farmers[2], i.e. those owning up to 3.0 acres (1.2 ha) of farm land or 4.0 acres (1.60 ha) of land in the *haors* areas (a particularly low-lying area where, due to a longer flooding period, only one crop is produced per year). Also targeted were the near landless and women with homestead plots. Finally, the landless would benefit from employment opportunities and income-generating activities (IGA). IFAD's target groups under the project therefore represented about 250,000 households (three-quarters of all households) in the district.

D. Goal, Objectives and Components

11. The project had an overall goal of contributing to the GOB's national programme for improving the quality of life of rural people and the alleviation of poverty.

12. The objectives of the project were to improve the living conditions and food security of the small and marginal farmers, landless and near landless and the women-headed households.

13. The project sought to achieve these objectives through an integrated and comprehensive approach designed to increase the unit area crop production and returns at farm level by supporting the following:

- Targeted extension and research, expansion of irrigation, dissemination of improved agricultural technology and reduction of the risk associated with flooding in certain areas.
- Income-generating opportunities for the landless and women engaged in homestead agriculture to arrest marginalization.

[2] Different categories of farmers are now defined as follows in IFAD-supported projects in Bangladesh: landless farmers are defined as having up to 0.2 hectare (up to half an acre), marginal farmers as having between 0.2 and 0.6 hectares (0.5 to 1.5 acres) and small farmers as having between 0.6 and 1 hectare (1.5 to 2.5 acres).

- Improvements to the rural road network, river landing infrastructure and other rural infrastructure that would support the overall development of the project area, cut marketing costs and provide employment to the landless.
- Strengthen the organization and management of the project implementation agencies.

14. The project consisted of the following components:

- Agricultural Development Support - to strengthen extension activities by funding adaptive research trials, farmer demonstrations, training and extension events. DAE, who implemented this component, was supported through the funding of staff training, vehicles and equipment.
- Polder rehabilitation and management - provided funding for the Bangladesh Water Board (BWDB) to rehabilitate and improve the effectiveness of five flood control polder schemes covering an area of 30,000 ha. The project also provided funds for polder operations and management (O&M), polder management committees, tree planting on embankments and borrow pit fish ponds.
- Rural infrastructure development- to improve 110 km of rural roads, construct 29 offices for local government at the Union Parashad level, improve 23 small markets, construct 25 boat landing stages, two community centres and 10 thana training centres. The project also funded two Local Government Engineering Department (LGED) residential buildings, vehicles, equipment, staff and administration costs. LGED also rehabilitated some small-scale flood protection embankments.
- Pilot credit delivery system - a revolving loan fund (RLF) of Tk235 lakh (23,5 mio) to NGOs for lending to the landless poor. In addition, the project established a risk fund of USD 60,000 with the Agrani Bank (AB) to enable this bank to extend credit to marginal and small farmers who might not otherwise qualify for bank credit. NGOs were recruited to form and support farmer groups for the purpose of accessing bank lending.

E. Implementation Partners and Arrangements

15. The project was implemented by three government departments: DAE, BWDB and LGED, in part in cooperation with a number of NGOs.

II. MAIN RESULTS

A. Agriculture

16. According to the Kranti impact study impressive results were achieved by the project in terms of cropping diversification, greatly increased yields and income. Many farmers will be able to continue to develop their holdings into increasingly profitable enterprises whatever the degree of outside support they receive from Government and the NGOs. In short, there is strong evidence that sustainable changes have been brought about by the project.

17. Production. The major impact has been on fruit and vegetable production, introducing the concept of small fruit orchards, popularising homestead vegetable gardening, and introducing new types of vegetables. Ten years ago cauliflower and radish, for instance, could not be bought in the local markets; now there is a surplus over local demand. Watermelon used to be imported from other parts of the country; now it is widely cultivated in the district and is marketed as far afield as Dhaka.

18. The area of vegetables grown in the district increased from 2,750 to 8,950 ha between 1995/6 and 1999/2000, an increase of 186%, compared with 78% for other districts in the Mymensingh region.

19. Formation of groups. As per the Project Proforma (PP) the intention was to set up 4000 homogenous extension groups each consisting of about 20 farmers, together with 200 women's homestead gardening groups. Suitable NGOs were to be contracted to carry out group mobilisation, and the DAE would provide the technical input. This was to be the basis of the extension programme, in contrast to the earlier Contact Farmer/Training and Visit System (T&V) used by the DAE throughout the country. Under-pinning group mobilization was the use of participatory approaches to working with groups and communities. Unfortunately delays occurred in contracting the NGOs, because no provision had been made for group formation costs in the Appraisal Report (AR), the PP and IFAD loan agreement, and this omission was not rectified until 1998 when the PP and loan agreement were revised. At the same time the number of groups to be mobilized was revised downwards to 2,100, a total which

included the 200 homestead garden groups.

20. The actual extension programme was based on Needs Assessment and a continuing dialogue with farmers to monitor and evaluate the work being carried out, as essential steps in the process of adoption or rejection of the proposed innovations. This was a valuable exercise but appears to have been biased towards the needs that the DAE could respond to, thus giving lower priority to livestock and pisciculture.

21. In short, the participatory basis of the extension programme, which depended heavily on a full involvement of the NGOs and the effective application of Needs Assessment, was not impressive. While there was significant progress in agriculture, and related improvements in food security were achieved, the mission concluded that more would have been achieved, particularly in terms of sustainability, if the emphasis on participatory approaches had been greater.

22. Training and on-farm demonstrations. The project provided training in appropriate cropping technology as well as in the use of minor irrigation equipment for water user groups and pump operators. To ensure extension coverage for a large number of farmers, the on-farm trials programme supported topics of interest to IFAD target group farmers and the project provided funds to organize regular field days at the on-farm demonstration site corresponding to important cropping activities. Much valuable training was provided. In addition to the on-farm demonstration/trials component, a programme of on-farm research trials was planned on topics relevant to small and marginal farmers generally and specifically to those farming in the hoar areas. Farm-based research, using a participatory approach, has been shown in Bangladesh and many other countries to be an important strategy in the process of agricultural innovation and its adoption by farmers. However, while some useful trials were carried out, this component was not executed with much speed and vigour and was not nearly as effective as it could have been.

23. Inputs and marketing. The mission noted the need for greater emphasis in future on the provision of inputs and the marketing of produce and noted that there might be a useful role for groups in these activities.

B. Polder Rehabilitation and Management

24. The mission found that BWDB's polder schemes play a pivotal role in the livelihood of people in Netrakona and are highly appreciated by the public. However, the project neither succeeded in pursuing a participatory approach in planning and implementation, nor in developing a viable organisational framework for O&M.

C. Rural Infrastructure

25. The activities under the rural infrastructure component were many: construction and rehabilitation of rural roads, construction of culverts, markets, Union Parishad office buildings, landing stages, bridges, embankments, regulators, submersible roads, training centres, community centres and residential buildings. Close scrutiny of this component reveals that the project allocation for rural infrastructure development was in fact complementing the national budgetary allocation to the LGED. The total targets set for the rural infrastructure development component were met during the tenure of the project.

D. Credit

26. The pilot credit delivery component consisted of two separate loan portfolios:

- The USD 400,000 RLF to selected NGOs to lend to the landless category of beneficiaries for IGA.
- An agricultural credit programme implemented by Agrani Bank (AB) to small and marginal farmers indirectly through NGOs and directly through the bank.

27. Overall, the RLF achieved its target of financing 15,000 beneficiaries. The success of the RLF

is in no small measure due to the fact that micro credit in Bangladesh is now a well-known financial instrument, its methodology has been tested and refined and its prevalence and acceptability are fairly widespread. However, the agricultural credit programme was not successful. AB functioned within the traditional banking culture where there was no outreach mechanism and no effective supervisory mechanism.

E. Community Participation

28. An analysis of the Appraisal Report (AR), the inception report, various project-related technical reports, and supervision reports and interviews with LGED, BWDB, DAE, NGO representatives and local people indicate that the project failed to enhance participation – which was seen in the AR and PP as a critical basis for working with the target communities - as a result of conceptual and operational weaknesses. Thus, the objectives were largely achieved despite slow mobilization of groups, limited participation, lack of progress with the on-farm research component and difficulties with agricultural credit.

IV. MAIN RECOMMENDATIONS

A. Agriculture

- As stated above, implementation was far from participatory. Greater expertise in participatory development should be drawn into the planning and implementation of future projects which aspire to a participatory approach.
- Greater expertise is also required in group mobilisation in future projects.
- As implemented the Needs Assessment process (FINA – part of the national NAEP) was an imperfect guide to the real need of farmers. Greater expertise in the participatory approach and group mobilization would also help in this respect.
- The potential for livestock development should be given higher priority in future projects of this kind.
- Higher priority should also be given to farm-based participatory research.
- Where NGOs are involved in government projects more effective coordination between the two is vital.

B. Polder Rehabilitation and Management

- The current practice of handing over O&M responsibilities for major hydraulic infrastructure to local communities, in the name of 'participation,' has led to an institutional vacuum, because nobody is formally responsible. This deficiency should be remedied when planning future projects.

C. Rural Infrastructure

- A mechanism to ensure the sustainability of the rural infrastructure should be developed under a project. This may demand that future projects refuse to rehabilitate existing infrastructure, and so provide an incentive for routine maintenance.
- Identification and construction of civil works should not start until group formation is completed.

D. Credit

- While the Palli Karma Sahayak Foundation (PKSF) caters for the credit needs of the landless, there is an urgent need for a specialised agency to focus on the agricultural credit needs of marginal and small farmers.

E. Participation

- The enhancement of participatory development requires sound concepts and implementation strategies, committed implementing agencies, careful monitoring and supervision, and ultimately, sanctioning mechanisms in case major deviations occur during project implementation.

- Union Parishads should be actively involved in project planning, implementation, monitoring and supervision and should have some decision-making authority.
- IFAD should be more critical towards 'voluntary donations' of land which in fact are rarely voluntary. IFAD should consider adopting the World Bank's safeguard policies, in particular OP 4.12 (Resettlement)

F. Project Planning, Management, Institutional Arrangements

- The designated project coordinator should be included as an observer in future IFAD Appraisal Missions.
- During the early stages of a project manuals should be prepared covering, for instance, implementation, training, monitoring and evaluation.
- A base-line survey should be undertaken in the early stages of a project in the target communities.

The People's Republic of Bangladesh
Netrakona Integrated Agriculture and Water Management Project
Completion Evaluation

I. INTRODUCTION

A. The Completion Evaluation

1. The Netrakona Integrated Agriculture and Water Management Project was implemented by the Government of Bangladesh over a seven year period from 1994 to 2001. A completion evaluation (CE) was undertaken in September-October 2002 and this is the report on its findings.

2. The CE mission[3] used the Project Completion Report (PCR) of June 2001 and the impact study carried out for the PCR by Kranti Associates Ltd. as key inputs to the CE, in accordance with the design of the Approach Paper. While both documents were valuable, they were not designed with the completion evaluation in view. At the same time, the evaluation design did not require a full validation of this preliminary work. Thus, the present report is a qualified mixture of the mentioned preparatory work and the team's observations, findings and analysis.

3. The objectives of the completion evaluation were:

- To analyze the project's overall design and implementation experience.
- Develop a series of findings and recommendations that could assist in improving the design of future and implementation of on-going IFAD-supported projects in Bangladesh.
- Identify a series of (policy) insights that could form the basis for future dialogue with the GOB and other partners.

B. Approach and Methodology

4. The evaluation was designed and conducted in accordance with IFAD's Guiding Framework for the Impact Evaluation Methodology. Three core areas were analyzed: (a) Rural poverty impact; (b) Performance of interventions; and (c) Performance of partners.

5. The Guiding Framework focuses on impact, which IFAD defines as the immediate results at the end of project implementation and their likely sustainability.

6. The mission drew extensively on data contained in the Kranti survey and the PCR. It was able to shed further light on the planning, implementation and results of the project and to make a series of recommendations, which should be of value both to the GOB and IFAD.

7. The complete evaluation process was as follows:

- First, the Kranti survey and the PCR were completed in July 2001.
- Then, an IFAD preparatory mission visited Bangladesh in July-August 2002 to discuss the key aspects of the proposed evaluation with the relevant stakeholders. The mission visited the central and district offices of the Department of Agricultural Extension (DAE), the Local Government Engineering Department (LGDE), BWDB, the participating credit institution, the Agrani Bank (AB), and several partner NGOs based in Dhaka and the Netrakona district. The preparatory mission pursued the following objectives: the re-engagement of the project partners and obtain agreement to participate in the proposed evaluation (it should be noted that the project closed 12 months before the preparatory mission and all the key people involved had been reassigned to other GOB projects); the facilitation of the dissemination and discussions among the key stakeholders of IFAD's new approach to evaluation; and, to improve the understanding of the key

[3] David Campbell (Team Leader and agriculture), Jennifer Duyne-Barenstein (participation and polders), Aodiiti Mehtta (credit), Sarath Mananwatte (rural infrastructure).

issues and the ground conditions that would be used to prepare the Evaluation Mission's terms of reference (TOR).

- Next, following the Preparatory Mission, an Approach Paper was prepared by IFAD's Office of Evaluation and Studies. The evaluation team was then recruited.
- Finally, the Team Leader and two other members of the mission attended a two-day briefing session in Rome, and the entire mission team assembled in Dhaka on 6 September 2002.

  - The first part of the mission was spent in Dhaka. Meetings were held with the Joint Secretary, Ministry of Agriculture, the Director General (DG), DAE and department staff – including two senior staff who had served as directors of the project, Dhaka representatives of NGOs who had participated in the project, Kranti Associates, the AB, etc.
  - The mission then travelled to Netrakona and was based in the district town, members spending 8-10 days on field work. The visit was coordinated by the Deputy Director of DAE, Netrakona. Extensive discussions were held with the participating agencies – DAE, BWDB, the LGDE, and the NGOs. Interactive meetings were held with DAE and NGO groups in their respective villages. At the end of the field visit a stakeholders workshop was held in Netrakona.
  - The mission spent the final week in Dhaka holding concluding meetings with the DAE and other stakeholders. A draft aide-memoire was prepared and presented at a wrap-up workshop held at the DAE on 30 September. The aide-memoire was revised in the light of comments at the workshop and the final document was presented to the DG on 1 October 2002. The mission prepared this draft report after departure from Bangladesh.

C. Country Background

8. Bangladesh is a small country covering only 144 000 km^2, with a disproportionately large population estimated at over 133 million (2001) and a population density of 1,024 persons/ km^2 – one of the highest in the world. About 75% of the population live in the rural areas and each cultivable hectare support from four to seven people. Over time, the population growth has declined to about 1.8% per annum, but the ever-increasing population is placing a severe strain on the country's natural resources.

9. With a gross national product of USD 370 per capita (2001), Bangladesh is one of the poorest countries in the world. Social indicators reflect the country's unfortunate circumstances: under-5 mortality is 82 per 1000 births; the literacy rate is 48%, and life expectancy at birth is 61 years. The country's already difficult circumstances are further compounded by natural disasters such as regular, often catastrophic floods and frequent cyclones. These recurrent calamities damage crops, kill livestock and severely disrupt the lives of the poor who, by and large, bear the major brunt of such events. Despite political instability, severe poverty and frequent disruptions due to natural calamities, Bangladesh's economy has performed relatively well. The gross domestic product (GDP) grew at more than 5% per annum in the five years ending 2001, when it reached USD 360 ($ 1,600 Purchase Power Parity).

10. Bangladesh depends to a very large extent on external assistance, USD 9.5 per capita per year. The current account deficit – some USD 2.5 billion annually – is being met through aid, overseas remittances and capital inflows. The budgetary outlays and inflation rate have been generally low, varying between 2.5 and 9% per annum. While recent performance has been relatively better, future growth will be largely dependent on increased capital inflows, better resource management, development of human resources, decentralization of the administration, better relationships between the Government and NGOs and the uplifting of the poor.

11. There has been a steady decline in agriculture's share of total GDP. However, the agricultural sector accounted for 23% of GDP in 2001 and remains the single largest contributor to the wellbeing of the poor, employing 63% of the labour force. The overall growth of the agricultural sector has varied between 2.7% (1980-90) and 1.7% (1990-97). Despite achieving near self-sufficiency in rice production, the performance of the sector remains low compared with many other Asian countries. In India, for example, the comparable figures for the same periods are 3.0% and 3.1%, respectively.

Photo 1: Diversification – a frequent sight in the district: vegetables being grown in rice fields.

12. Rice accounts for 60% of the crop sub-sector's value-added and for 75% of the cropped area. Wheat production, which was almost non-existent in Bangladesh in 1973, grew by almost 25% per year between 1975 and 1985. The relatively high growth rate recorded in cereal production between 1980 and 1990 was largely due to the adoption of high-yielding varieties, increased use of fertilizer and the expansion of irrigation.

13. More recently, food grain production has been stagnating, and the growth in the agricultural sector seems to have been accounted for by the fisheries and livestock sub-sectors, both of which accounted for increases of more than 8% in 1997-98. In 1997-98, the fisheries sub-sector accounted for 3.3% of GDP compared to 2.6% in 1989-90; the livestock sub-sector now accounts for 3.2% of GDP and has grown like the fisheries sub-sector. Both sub-sectors also contribute significantly to the exports market: fish and shrimp exports grew by almost 15% per annum between 1991 and 1998, whereas exports of livestock grew by 4.7% per year in the same period. These products are the fourth largest export earners after garments, jute and frozen foods. The livestock sub-sector is labour-intensive and provides employment for 20% of the population. In contrast, forestry accounts for 2.3% of the GDP only, and for less than 7.3% of the value-added in the agricultural sector.

D. IFAD Support for Bangladesh

14. Since 1979, IFAD has financed 19 projects in Bangladesh for a total loan commitment of more than USD 288 million. The projects were aimed largely at supporting Bangladesh's overriding objective of achieving food self-sufficiency through financing water resource development and credit. Since 1987, the Fund's assistance has been directed towards the needs of vulnerable groups, namely women, the poor and the landless. The main objectives of the projects have been to increase household food security, mobilize stakeholders and provide credit for on- and off-farm activities.

E. Origin of the Project

15. The project evolved out of the 1986 general identification mission during which identified the Netrakona district as a suitable area for IFAD assistance. With an initial focus on irrigation and flood control, a follow-up IFAD mission in 1992 recommended that the scope be expanded to cover on-farm water management, improvement of cropping practices, closer extension follow-up and provision of credit to the target groups. The targeted population include the small and marginal farmers, landless and near landless and the women-headed households. Collectively, the target group represents nearly three-quarters of the district total of 350,000 households.

16. The project was appraised in 1992 and presented to IFAD's Executive Board in December 1993. The project started in January 1994 and was declared completed on 31 December 2001. The loan closure date was 30 June 2002. At appraisal, the project had a total estimated cost of USD 13.72 million, out of which IFAD's contribution was USD 8.86 million (64.6%). Other project partners included the GOB's (USD 2.0 million (14.6%). The World Food Programme (USD 1.59 million (11.5%) and the beneficiary communities (USD 1.27 million (9.3%).

II. MAIN DESIGN FEATURES AND IMPLEMENTATION RESULTS

A. Project Rationale

17. Poverty is widespread in Netrakona (indeed it is one of poorer districts of Bangladesh), and it is highly vulnerable to flooding. Agriculture is the principal economic activity, and there is limited scope for developing the industry or the service sector. About half of the households comprise small and marginal farmers, and there is potential to increase the production of food and other crops.

18. The project aimed at increasing, on a sustainable basis, the incomes and food security of marginal and small farm households in order to arrest the process of marginalisation and landlessness. The project sought to meet this objective through a combination of measures designed to increase unit-area crop production and returns at farm level through support to targeted extension and research, expansion in the use of irrigation equipment, and income-generating opportunities for the landless and women engaged in homestead agriculture. Improvements in the rural road network, river landing infrastructure and other rural infrastructure were also included under the project to support the overall development of the district and reduce marketing costs, while providing employment under food-for-work schemes.

B. Project Area and Target Group

19. Area: The Netrakona district is located about 160 km to the north of Dhaka and bordered on the north by India; it has a total land area of 281,000 ha. According to the Bangladesh Bureau of Statistics, in 2001 the district population was estimated at 1.9 million, of which 97% classified as rural. There are no large urban centres, and the district headquarters, Netrakona, which has a population of about 50,000, is the only town classified as an urban area under the 1988 census.

20. Administratively, the district is divided into 10 thanas, which are sub-divided into 90 unions, (of which 87 rural) covering 2,426 villages.

21. The net cultivated area is 187,000 ha, of which 51% is single cropped, 46% is double cropped, 3% is triple cropped; negligible amounts are left fallow or covered by forest. About 90,000 ha are under some type of irrigation.

22. Target Group: The selection of the Netrakona district was based on the presence of widespread poverty. About 70% of the land is subject to annual flooding. Houses are built on land higher than normal flood levels, and can be dismantled easily and quickly if flooding occurs. The relative lack of high land has resulted in the clustering of houses, and is one of the reasons for the low population density of the district, 678 persons/km^2. There is no identifiable concentration of either relative affluence or poverty, with the exception of the extremely low-lying *haor* areas in the Southeast. Average annual per capita income in Netrakona is about half the national average. The value of a minimum consumption is about Tk 1,750 (USD 45), based on 140 kg of low quality rice and an additional 25% for other basic necessities. It is clear that many households, especially women-headed households, landless and marginal farmers in Netrakona, are not comfortably above this level.

23. There are about 348,000 households in the district, of which an estimated 97% (339,000) are considered to be rural. Of these, the large majority derives its principal income from agriculture, either as farmers, labourers or a combination of the two. According to a number of sample studies, it is estimated that about 180,000 households, or 53%, have land holdings up to 3.0 acres (1.2 ha), and can be classified as marginal and small farmers. Another 17-21% own only homestead land. Finally, about 1-3% own neither homestead nor cultivable land. Thus, about 70,000 households consist of the landless and near landless, who both derive their major income from agricultural and other wage labour. Finally, another 18,000 (5%) have no operated or cultivated land, but derive their incomes from sources other than wage labour. The remainder 71,000 households (22%) consist of medium and large farmers.

24. The principal target groups of the project's agricultural activities are marginal and small farmers, owning up to 3.0 acres (1.2 ha) of farmland or 4.0 acres (1.60 ha) of land in the deeply flooded *haor* areas where only one crop can be produced per year. Also, targeted are the near landless and women with homestead plots. Finally, the landless will benefit from employment opportunities and income-generating activities. All together, IFAD's target groups represent about 250,000 households, or three-quarters of all households in the district.

C. Goal, Objectives, Components and Strategy

25. The project has the overall goal of contributing to the GOB's national programme for improving the quality of life of rural people and the alleviation of poverty.

26. The objectives of the project are to improve the living conditions and food security of the small and marginal farmers, landless and near landless and the women headed households.

27. The project seeks to achieve these objectives through an integrated and comprehensive approach designed to increase the unit area crop production and returns at farm level by supporting the following:

- Targeted extension and research, expansion of irrigation, dissemination of improved agricultural technology and reduction of the risk associated with flooding in certain areas.
- Income generating opportunities for the landless and women engaged in homestead agriculture to arrest marginalization.
- Improvements in rural road network, river landing infrastructure and other rural infrastructure that would support the overall development of the project area, reduce marketing costs and provide employment to the landless.
- Strengthening the organization and management of the project implementation agencies.

28. The project consisted of the following components:

- Agricultural Development Support – to strengthen extension activities by funding adaptive research trials, farmer demonstrations, training and extension events. DAE, who implemented this component, was supported through the funding of staff training, vehicles and equipment.
- Polder rehabilitation and management – to provide funding for BWDB to rehabilitate and improve the effectiveness of five flood control polder schemes covering an area of 30,000 ha. The project also provided funds for polder O&M, polder management committees, tree planting on embankments and borrow pit fish ponds.
- Rural infrastructure development – to improve 110 km of rural roads, construct 29 offices for local government at the Union Parashad level, improve 23 small markets, construct 25 boat landing stages, two community centres and 10 thana training centres. The project also funded two LGED residential buildings, vehicles, equipment, staff and administration costs. LGED also rehabilitated some small-scale flood protection embankments.
- Pilot credit delivery system - the project has provided a revolving credit fund of Tk235 lakh to NGOs for lending to the landless poor. In addition, the project established a risk fund of USD 360,000 with the Agrani Bank (AB) to enable this bank to extend credit to marginal and small farmers who might not otherwise qualify for bank credit. NGOs were contracted to form and support farmer groups for the purpose of accessing bank lending.

29. A participatory approach to working with target communities was envisaged by the AR and PP. This was not a specific project objective, but - coupled with the mobilisation of groups by the DAE (and the NGOs) as the main extension medium (replacing the previous Contact Farmer/Training and Visit System) - it was considered an important element in the project's strategy. The present mission, on the basis of its wide experience of participatory approaches, would concur with this strategic point of view, and thus, it paid particular attention to the use of participatory methodology and its contribution to achieving the project's objectives.

D. Implementation Partners and Arrangements

30. The project was implemented by three government departments, DAE, BWDB and LGED. Their responsibilities were as follows:

DAE

- Implementation of agricultural development support component (Project Director, Deputy Director of Agriculture, Netrakona). The on-farm research sub-component managed under contract by the Bangladesh Engineering & Technology Services (BETS).
- Implementation of pilot credit delivery system component (managed by PMU in conjunction with Agrani Bank and nine contracted NGOs).
- Project Management Unit (PMU) (headed by Project Coordinator, seconded from DAE). Within the PMU there were national and international Technical Assistance consultants provided under contract by Kranti Associates and MacDonald Agricultural Services. Monitoring and Evaluation Service (MES) provided under contract by Kranti Associates and RPMC.

BWDB

- Implementation of the polder rehabilitation and management component (Project Director, Executive Engineer, Netrakona). The planting of trees on embankments and borrow pit aquaculture were the responsibility of the PMU who contracted two NGOs for this work.

LGED

- Implementation of the rural infrastructure component together with improvement of some small polders that fall under the remit of LGED (Project Director, Executive Engineer, Dhaka).

31. Further, a number of NGOs were involved in project implementation, e.g. through group formation, credit delivery, extension and O&M.

E. Major Changes in Policy and Institutions during Implementation

32. No changes were made to the project's goal, purpose or to the institutional partners during implementation.

F. Design Changes During Implementation

33. Some of the implementation methods for the credit component, as well as some targets for physical outputs, were altered. The construction of four new small polder schemes was dropped as suitable new schemes were not identified and the project only rehabilitated existing schemes. Costs savings on the polder rehabilitation and management component and the devaluation of the Taka during the life of the project meant that additional funds could be made available.

34. As a result the rural infrastructure component was slightly extended, more agricultural development activities were carried out and additional revolving credit funds were provided to NGOs. Following the recommendations of a supervision mission, funds were also provided to plant trees on the embankments of polders and to develop fish ponds in borrow pits alongside embankments.

Photo 2: Tree planting on a fish pond embankment.

G. Main Implementation Results

Agriculture

35. Production. The Kranti survey indicated impressive achievements by the project in terms of cropping diversification, greatly increased yields and income. Many farmers will be able to continue to develop their holdings into increasingly profitable enterprises, whatever the degree of outside support they receive from Government and the NGOs. In short, there is strong evidence that sustainable changes have been brought about by the project.

Photo 3: Crop diversification – increasingly other crops (in addition to rice in the background) are being grown, and this has had a considerable impact on farm income.

36. The major impact has been on fruit and vegetable production, initiating the concept of small fruit orchards, popularising homestead vegetable gardening, and introducing new types of vegetables. Ten years ago cauliflower and radish, for instance, were not available in the local markets; now there is a surplus over local demand. Watermelon used to be imported from other parts of the country; now it is extensively cultivated in the district and is marketed as far afield as Dhaka.

37. The area of vegetables grown in the district increased from 2,750 to 8,950 ha between 1995 and 2000, an increase of 186%, compared with 78% for other districts in the same region.

Photo 4: Crop diversification.

38. The benefits of the agricultural component were not designed to extend to the poorest among the landless and near landless, and in fact, the IGA, including related training packages, did not meet many of their needs. However, the emphasis on fruit and vegetables meant that crops most suited to the needs of those with the least land were supported. In addition, the project did train poor women in nursery work.

39. While the links between the IGA/NGO component and the DAE's agricultural development were weak, some training was provided to NGO/IGA groups in livestock, which is a major priority of the poor in terms of training needs.

40. Further the discipline of group membership and loan repayment requirements were clear deterrents for the very poorest households. The design did not include the (very expensive) extra support needed by such households. In the view of NGOs at the stakeholders' workshop, convened by the mission in Netrakona on 19 September 2002, this was a serious omission.

41. Formation of groups. As per the PP, the intention was to set up 4,000 homogenous extension groups each consisting of about 20 farmers, together with 200 women's homestead gardening groups. Suitable NGOs were to be contracted to carry out group mobilisation, and the DAE would provide the technical input.

42. Unfortunately, delays occurred in contracting the NGOs, because no provision had been made for group formation costs in the AR, PP and IFAD loan agreement, and this omission was not rectified until 1998, when the PP and loan agreement were revised. At the same time the number of groups to be mobilised was revised downwards to 2,100, which included the 200 homestead garden groups.

43. Once contracted, the NGOs started the process of group mobilization. However, due to the delays the DAE had already set up its own groups. These had specific functions relating to the introduction of vegetables, improved varieties of rice and other crops, fruit trees, tree for timber and improved methods of irrigation. Selection was not strictly in accordance with the target group criteria in that medium and large farmers were included.

44. On the advice of the supervision mission, steps were taken by the PMU Extension Specialist to bring together the DAE and NGO agricultural groups. This was only partially achieved. Group formation – on which the extension programme was to be based – has therefore hardly been a success, and there is the problem of sustainability.

45. The actual extension programme was guided by Needs Assessment and a continuing dialogue with farmers to monitor and evaluate the work carried out, as essential steps in the process of adoption or rejection of the proposed innovations. This was a valuable exercise, but it appears to have been biased towards the needs that the DAE could respond to, thus giving lower priority to livestock and pisciculture.

46. In short, the participatory basis of the extension programme, which depended heavily on a full involvement of the NGOs and the effective application of Needs Assessment was not impressive.

47. Training and on-farm demonstrations. The project provided training in appropriate cropping technology as well as the use of minor irrigation equipment for water user groups and pump operators. To ensure extension coverage for a large number of farmers, the on-farm trials programme supported topics of interest to target group farmers, and the project provided funds to organize regular field days at the on-farm demonstration site. Much valuable training was provided.

48. In addition to the on-farm demonstration/trials, a programme of on-farm research trials was planned on topics relevant to small and marginal farmers in general and specifically to farmers in the hoar areas. Farm-based research, using a participatory approach, has been shown in Bangladesh and many other countries to be an important strategy in agricultural innovation and its adoption by farmers. However, while some useful trials were carried out, this component was not executed with much speed and vigour, and it was not nearly as effective as it could have been.

49. Inputs and marketing. The mission noted the need for greater emphasis in future on the provision of inputs and the marketing of produce and noted that there could be a useful role for groups in these activities.

50. Coordination. Problems were caused by lack of coordination, primarily between DAE and NGOs, and DAE and the Project Implementation Unit.

Polder Rehabilitation and Management

51. The mission found that BWDB's polder schemes play a pivotal role in the livelihood of people in Netrakona and are highly appreciated by the public. However, the project did not succeed in pursuing a participatory approach to planning and implementation, or in developing a viable organisational framework for O&M. From interviews the mission concluded that several project structures (drainage outlets, irrigation inlets) would have been more valuable to the community, if the latter had been involved in the detailed planning. It may also be true that the quality of works would have been better, if community representatives (village leaders and the Union Parishad) had been given a role in monitoring and supervising the contractors.

Photo 5: Tree planting along a polder.

52. In any case, the sustainability of this vital hydraulic infrastructure is seriously threatened by the absence of viable O&M mechanisms. The current trend of handing over major O&M responsibilities to local communities, in the name of 'participation', has led to an institutional vacuum, as nobody is formally responsible for O&M.

53. Some of the problems mentioned above were repeatedly pointed out by supervision missions, but they were apparently not serious enough to attract the attention of sponsors and policy makers. This gives the impression that progress, supervision and evaluation reports were produced as required and with relevant information, but they were not really used as management tools.

Rural Infrastructure

54. The rural infrastructure activities were many: construction and rehabilitation of rural roads, construction of culverts, markets, Union Parishad office buildings, landing stages, bridges, embankments, regulators, submersible roads, training centres, community centres and residential buildings. A closer scrutiny of this component reveals that the project allocation for rural infrastructure development in fact just complemented the national budgetary allocation to the LGED. The total targets set for the rural infrastructure development component were completed during the tenure of the project.

55. This component almost used its budget fully (95.4%). The allocations for all activities were fully utilised, except for training (76%) and for O&M (31%).

Credit

56. The pilot credit delivery component was comprised of two separate loan portfolios:

- The USD 400,000 RLF to selected NGOs to lend to the landless beneficiaries for IGA.
- An agricultural credit programme implemented by Agrani Bank (AB) to small and marginal farmers; either directly through the bank or indirectly through NGOs.

57. Overall, the RLF achieved its target of financing 15,000 beneficiaries. The success of the RLF is in no small measure due to the fact that micro-credit in Bangladesh is a well-known financial

instrument, its methodology has been tested and refined and its prevalence and acceptability are fairly widespread.

58. However, the agricultural credit programme was not successful. AB functioned within the traditional banking culture, with no outreach mechanism and no effective supervisory mechanism. The bank simply did not possess the outreach mechanism or institutional worldview to seek out potential borrowers and coordinate the mix of credit and technical services that could constitute a viable credit package.

59. It should be noted, however, that the project design had given the bank a somewhat passive role as a credit channel, as it was given no access to project resources beyond credit funds.

Community Participation

60. On the basis of an analysis of the appraisal report, the inception report, various technical and supervision reports as well as interviews with LGED, BWDB, DAE, NGO-representatives and local people, the mission concluded that the project failed to enhance participation fully – as a result of conceptual and operational weaknesses. This was in spite of the recognised importance of participation for achieving the project objectives, including sustainability of results. While the various progress, supervision and evaluation reports did not give sufficient emphasis to participation, they did provide enough evidence to suggest that the approach to participation was conceptually weak and poorly implemented, and that little effort was being made by the participating agencies to ensure community participation. However, no action was ever taken to correct this situation.

61. The project's limited achievements with promoting a participatory process indicate that it is not enough for IFAD to declare commitment to participation to make it happen. Participatory development requires sound concepts and implementation strategies, committed implementing agencies, careful monitoring and supervision, and ultimately determination to take actions when major deviations from its principles occur during project implementation.

III. RURAL POVERTY IMPACT

A. Impact on Physical and Financial Assets

Roads

62. The impact of the rehabilitation of rural roads was clearly reflected in the daily lives of the community. Maintenance costs were reduced, and thereby such investments became feasible and profitable. Movement of produce to markets was eased, thus enabling the small farmers to diversify into the production of high value, perishable crops. Increase in the demand for transport provided work for the landless. Land value increased and way-side small business flourished.

63. Although it is difficult to assess the quality of the work carried out under the rural infrastructure development component, inspection of some of the roads, bridges and culverts selected at random give the impression that the quality of the work was satisfactory, and beneficiaries expressed satisfaction.

64. The rural roads belong to the Union Parishads. Following rehabilitation the roads were handed back to them, the cost of maintenance having to come once more from the Parishad budgets. Already there are signs of neglect due to lack of funds.

Markets

65. The buildings put up in the main bazaars of the thanas are supplementary structures to existing permanent buildings. These buildings were leased to traders for a nominal charge levied by market

committees. The project built drains in the markets and laid on water and sanitary facilities. The buildings together with the new water supplies and drains are often in a poor state due to lack of funds.

Landing stages

66. These are usually let out by Union Parishads to a contractor. The contractor (as part of his contract) is expected to do some light maintenance, and a proportion of the lease income should be used by the Union Parishad for maintenance. The same applies for markets. However, other local priorities and the expectation of a future rehabilitation mean that maintenance is usually inadequate.

67. The project envisaged that the beneficiaries would take full responsibility for the operation and maintenance of these structures. But it did not develop sound institutional arrangements to involve the beneficiaries. This is largely because there was no beneficiary involvement either during planning or during the implementation of these activities. It is surprising to note that the allocation for beneficiary training in operation and maintenance of these infrastructures was only partly utilized.

B. Impact on Human Assets

The DAE training component

68. The central element of the project had a profound affect on the "human assets" of the target groups, enabling them to raise production and improve income.

69. Farmers were questioned by the mission at group meetings on how they spent their increased income. Top of the list came education for their children, then investment in developing their farms, and some were able to buy more land. Whether this response was representative of the wider community cannot be ascertained on the basis of random interviews. But it is indicative of a highly significant trend – a trend which would have been unimaginable 20 or even 10 years ago.

70. The Kranti survey assessed the impact of technology demonstrations and associated training programmes on target and non-target farmers in terms of indicators such as changes in area and yield of the crops, use of inputs, technology adoption, income and food consumption. The evaluation study was limited to 13 selected demonstrations covering crops such as rice, wheat, mustard, vegetables and fruits and cropping patterns over the period 1995-96 to 1999-2000.
The main findings of the evaluation study are summarised below:

- Adoption rates of cabbage management, watermelon, boro balance fertilizer, and T-aman package were all above 90%, while wheat management was 88%, homestead winter vegetable garden (winter/summer) 71% and fruit gardens (lemon) 61%.
- Tomato, cauliflower and fruit gardens (guava) management technologies and T-aman – mustard-boro cropping pattern were adopted by 100% of all categories of farmers including medium and large ones, while wheat management was adopted by 88 –100% of marginal and small farmers.
- In most thanas, farmers did not grow cauliflower, cabbage and tomatoes before demonstrations. After demonstration, they have been growing the vegetables using high-yielding varieties and balanced doses of fertiliser. Substantial increase in the area under production for these crops was recorded.
- All categories of farmers reported profitability of the technologies as the major reason for adoption, followed by yield.
- Secondary data from DAE Netrakona showed that cropping intensity increased in all thanas except Khaliajuri.
- The impact of some agricultural implements was also investigated: 59 (71%) out of 83 treadle pump users said they would continue to use the machine because it was inexpensive, easy to operate and well suited for irrigating small areas, particularly for vegetable production. An increasing number of farmers adopted the pedal thresher, too.

- DAE's courses for its extension staff were evaluated for impact. 85% of the respondents reported that they had been applying the skills/knowledge they received from the training. Similar responses were received from the farmers interviewed during group discussions.
- Information on consumption level of selected food items of the respondents before and after demonstrations was collected and expressed in g/head/day. The nutrient value of food items was calculated in terms of Kcal. Average per capita daily intake of rice was up by 11.5% and that of wheat by 139% after demonstration
- Average per capita daily intake increased due to demonstrations: pulses 13%, milk 12, meat 49, potato 19, sugar 22, and oil 18%. Small farmers had the maximum increase in food intake of 17% followed by marginal farmers at 11%.
- Respondents above the poverty line increased by 33% while those below the poverty line decreased by 35%. The impact of technology demonstration on poverty alleviation was much more prominent with small farmers than marginal ones.

71. The PCR comments as follows: The AR expected agricultural extension messages from the project to reach the 180,000 small and marginal farmers in the district and specific extension activities to involve 30% (54,000). Although initial plans for the project were for it to expand by stages from 20 pilot blocks (the area covered by one Block Supervisor) to all 219 blocks in the district, in fact project activities did not extend beyond 25 blocks. This was because the DAE was implementing other projects as well in the district (normally it does not run more than one project per block) and 39 blocks were un-staffed.

72. The AR expected the project to result in 50-60,000 small and marginal farmers adopting extension messages. Based on the Kranti evaluation sample of 12 demonstrations, the new boro rice variety – BR-29 - was adopted by 67,000 farmers in the 125 project blocks. The area in the district down to vegetables increased from 2,750 ha to 8,950 ha, or by 186%, which compares with 78% in other districts in the Mymensingh region.

Credit

73. To understand the impact of the pilot credit strategy on rural livelihoods one must first understand the livelihood strategies and portfolio of the typical beneficiary household. Given the population pressure and fragmented nature of landholdings, agricultural intensification is the primary mode of survival. Of the 10 million farming households at national level, 70% are categorized as small and marginal, i.e. they till less than three acres of land. Livelihood diversification is limited to livestock rearing, aquaculture, backyard poultry and petty trading. Migration to nearby urban centres for off-seasonal employment as casual labour constitutes a third aspect of the livelihood strategy. Overall, 80% of the livelihood portfolio is made up of agriculture and related activities, with off-farm and labour activities contributing roughly 10% each.

74. Placed against this, the potential impact of the pilot credit strategy becomes easier to gauge. The most successful component, IGA-lending, could not have affected more than 10-15% of the livelihood portfolio in the best case. The bulk of the portfolio, consisting of agriculture and allied activities, remained out of the ambit of the credit effort.

75. The failure of the agricultural credit component means that 80% of the livelihood portfolio of the average land-owning household was unaffected by the credit inflows that may have taken place. Support for IGA was no doubt successful and the mission encountered several examples of livelihood diversification as a result of the support received. But the most successful stories were found among landless households (i.e. who hold less than 0.50 acre of land and would thus have a lesser share of agriculture in their livelihood portfolio). It would be farfetched to claim that the IGA led to rise in output in agriculturally dependent households, or reduced dependence on the informal credit market. Only in limited cases of successive investments would it be possible to claim that support from the project credit line led to capital or asset accumulation.

76. It would be unrealistic to expect that the agricultural credit component could overcome the general rigidities of the rural finance market and provide a replicable model for wider application. The agriculture credit component was not designed with enough attention to detail nor synergised with other components of an agricultural promotion package (such as technology extension, provision of inputs, marketing support, etc.) to be a really serious player in impacting livelihoods of a primarily agriculture based economy. Thus well-merited praise for the IGA must be qualified by an overall limited impact on the livelihood scenario for the credit package as a whole.

C. Impact on Social Capital and Empowerment

Participatory organisations

77. The project did not succeed in setting up participatory organisations as intended. The project also ignored and systematically by-passed existing formal and informal institutions, such as the Union Parishad and village leaders. The agencies through which the project was to be implemented had no proven capacity in this field and would have required major technical assistance and supervision to translate the project's general commitment towards community development into a concrete operational strategy. Accordingly, it may be argued that the project did not contribute to any tangible change in these respects.

78. If IFAD aims to facilitate changes in rural people's organisations and institutions, IFAD needs to provide much stronger guidance through qualified technical assistance or to work through partner organisations with a proven capacity in related domains. (Admittedly, it is limited in its choice of partners as it lends money to governments).

Social cohesion and self-help capacity

79. The mission found no evidence that the project had any positive influence on social cohesion and communal self-help capacity. To the contrary, by rehabilitating and improving polders in the *haor* basin, the project assumed responsibilities that in many *haors* are managed quite effectively by local communities. This does not mean that people did not welcome external assistance, nor that external dependence is irreversible.

80. With regard to the project's credit component, the mission noted that beneficiaries did not hesitate to use their loans for money-lending and mortgaging land, thus "exploiting" other less fortunate rural poor. However, at an individual and household level, people's self-help capacity may have improved through the production of homestead vegetables promoted under the project. These observations can not be quantified or substantiated through anything beyond anecdotal evidence. However, they constitute critical issues.

Gender equity

81. The project made a tangible contribution to gender equity and to improving the condition of women by extending credit to them and by focusing its agricultural component on horticulture.

D. Impact on Food Security

82. The PCR mission's participatory impact evaluation carried out in four villages found that there had been a significant increase in food security, with a reduction in the period of food shortage and an improvement in the quality of diet. Data from the Kranti survey on a wider sample confirms this.

E. Environmental Impact

83. Change to the natural resource base: Flood control and drainage schemes, such as the five polders rehabilitated under the project, have a well-known negative impact on fisheries and other natural resources belonging to a floodplain environment, and there is a growing concern at the national level about the decrease in fish resources. Floodplain resources are common properties and accordingly their depletion affects particularly the rural poor.

84. Through the construction of irrigation inlets in *haor* polders, the project may also have contributed to bring under cultivation land that used to remain fallow and was available to the community as grazing land. This issue could not be verified on the ground.

85. Exposure to environmental risk: The project's polder rehabilitation component made a significant contribution to reducing the risk of early flood, which particularly in the *haor* basin constitutes a severe threat to the only crop that can be grow yearly in that area. However, due to the absence of funds and viable institutional mechanisms for O&M, this positive impact may not be sustainable. During the last monsoon an embankment in one of the Netrakona polders breached. The entire area was flooded and the standing crop almost completely damaged. It remains unclear, whether this incident should be attributed to the unusually severe flood or whether it could have been avoided through better maintenance.

F. Impact on Institutions, Policies and Regulatory Framework

86. The mission concurs with the PCR in that it is hard to identify direct links between the experience of the project and the development of policy in the agricultural sector. However, features of the project have already been incorporated into other IFAD and DAE projects. The design of the Agricultural Development and Intensification Project (ADIP), the next IFAD-funded project after the Netrakona project, incorporated a number of significant improvements to the credit component and has a more focused approach, with fewer implementing agencies. DAE has adopted the model of this and other IFAD projects in formulating the new IDB-funded project in Gopalganj, Faridpur, Maaripur and Shhariyatpur districts which includes DAE activities along-side NGOs, LGED and a bank.

87. According to the DAE, the intensive field activities carried out by the project have increased the awareness among farmers of role of DAE.

88. Although the agricultural credit system has not been successful, there are useful lessons that will help develop a viable system.

89. Experience in implementing the New Agricultural Extension Policy will be of value to the DAE as it develops policy. This evaluation has highlighted the fact that despite the rhetoric that extension is now ' bottom-up', it is still very much 'top-down'. An acceptance of the need for truly participatory extension and the use of NGOs in group mobilisation would pay handsome dividends.

G. Sustainability

Agriculture and support services

90. The project played a significant part in encouraging the diversification of cropping, raising yields and farming incomes, and farmers should be able to sustain the technologies involved.

91. Technical support from the DAE will continue, although it has been much reduced since the project end. The future will depend on a follow-up project now being considered by the Ministry of Agriculture.

92. The necessary inputs – seed, fertiliser, and equipment - are available from a range of suppliers in the district. There are many market outlets for produce, but problems could be encountered particularly with the growing output of vegetables. Proposals for a marketing system in the IFAD-supported ADIP project would also be highly relevant in Netrakona.

93. The viability of DAE and NGO groups through which extension assistance has been channelled is another important factor. Carefully set up and developed groups will continue to play a valuable role, others will fall by the wayside.

RLF credit

94. To ensure sustainability a decision will have be taken on the future of this fund: whether, for instance, it should be returned to the GOB after five years or transferred to the PKSF - and for it then to become a loan from PKSF to the NGOs?

Agricultural credit

95. Agri-credit from AB, either directly or via the NGOs, is not sustainable in its present form – the number of borrowers is falling with fewer farmers getting a second and third loan. A limited amount of agricultural credit is likely to continue from one NGO – SUS – which is using an alternative source of funds.

H. Innovation and Replication

96. The Kranti survey provides substantial evidence on the adoption of new technologies. Farm visits carried out by the mission confirmed that considerable changes have taken place.

97. Farmers gave increased profits and yields as the reasons for adoption, and if this remains the case the level of replicability should be high. However, a number of constraints may apply:

98. The increased production will require more effective marketing. Also, agricultural credit will need to be more accessible than at present. Finally, the replication requires a sustained input in terms of training and demonstrations on the part of the DAE. This will depend on the provision of more funds.

I. Poverty Impact

99. The Kranti survey used the food-energy intake method to estimate the poverty line**.** The floor calorie intake per capita per day used to obtain the poverty line was 2,122 Kcal. Stratification of the respondents as per the above poverty definition shows that the incidence of poverty was reduced considerably. Respondents reaching above the poverty line increased by 32.5%, while those reaching below the poverty line decreased by 35.14%. Further, the Kranti survey concluded that the impact of technology demonstration on poverty alleviation was much more prominent with small farmers than with marginal ones.

100. Kranti also notes that all categories of farmers, who had adopted new technologies, reported 'more profitability' as the major reason for adoption.

J. Overall Impact Assessment

101. The results and impact of the project have been substantial:

- The project has generated and diversified income and employment, increased food security, and reduced the vulnerability of the poor – although there has been little benefit to the hard-core who were not specifically targeted by the project.
- The infrastructure and capacity-building initiatives will continue to yield dividends.
- While the RLF provided considerable assistance, the agricultural credit did not function effectively.
- Empowerment of women through the setting up of DAE and NGO groups was an important development.
- However, the work of the project would have been more effective and sustainable, if implementation had involved a fully participatory approach, and if the project had drawn more extensively on the wide experience of group mobilization and development that exists in Bangladesh.

IV. PERFORMANCE OF THE PROJECT

A. Relevance of Objectives

102. The mission believes that the objectives of the project were highly relevant to the needs of Netrakona.

B. Effectiveness

103. Overall the project was effective in terms of achieving the objectives but it was constrained in the following ways:

- While the project was described in the AR and PP as an 'integrated initiative', it was implemented more as a 'comprehensive' project in that it attempted to cover a series of complementary issues. In the view of the mission, a closer degree of integration - which recognised the holistic nature of rural development - between implementing agencies, particularly in relating to target groups, would have led to greater effectiveness.
- The degree of participation varied from component and in no instance were full partnerships between the implementing agencies and the beneficiaries achieved. While this did not markedly affect the achievement of project objectives, the sustainability and long-term impact of the project may well suffer.
- The key involvement of the NGOs in group mobilisation was long delayed.
- Training was adversely affected by lack of operational budgets for DAE training centres and follow-up visits to the large number of farmer groups formed by the project.
- The farm-based participatory research component made only limited progress.
- The agricultural credit component was largely a failure.
- Response on the part of the PMU to recommendations by Supervision Missions was often much delayed.
- Lack of GOB funds after the end of the project will inevitably mean a loss of momentum in the development programme and this again could affect sustainability.

C. Efficiency

104. By and large the project would appear to have been efficiently implemented. Nevertheless, the organisational structure – the implementing agencies, GOB, IFAD and UNOPS - was clearly unwieldy and frequently unresponsive. In the mission's view, a more direct involvement by IFAD in project implementation and monitoring would have been beneficial.

D. Monitoring and Evaluation

105. Given the project's innovative nature it was expected to design a sound monitoring and evaluation system (MES) to learn from and improve the planning and implementation. The intention was to enhance the M&E capacity of the district and national directorates, NGOs and the beneficiaries, and to establish a mechanism for assessing project's implementation efficiency and its impact. It would give an early identification of implementation constraints and bottlenecks enabling timely and effective response.

106. However, the implementing agencies almost certainly lacked the capacity to design this sort of participatory MES, it was unrealistic of the AR to plan M&E this way - which amounts to a design fault.

107. Given the remoteness of the project from the Inter-Ministerial Project Steering Committee (IMPSC), the need for comprehensive MIS at different operational levels would seem obvious. Instead a MES was established at the PMU level.

108. Later Kranti Associates was contracted to provide monitoring of various components and on-going evaluation of the projected outputs. The Supervision Report of the UN Department for Development Support and Management Services (UNDDSMS) of 10-27 August 1996 stated, "The

mission recommends that monthly monitoring reports encompassing component implementation status, including financial and physical progress, should be submitted to the project coordinator for his information and necessary action". Regrettably, the supervision missions did not insist on a well-defined framework of indicators to be established from component objectives and confirmed from the baseline survey. These could have been reflected in a M&E manual, which the project did not produce even after recruiting a local service provider.

109. Instead of a M&E manual, Kranti Associates prepared an inception report on MES in March 1997 which outlined the methodology, organization and the work plan. The MES also developed a large number of formats for the routine monitoring of activities: monthly Activity Reports, Bi-Monthly Monitoring reports, Quarterly Progress Reports of M&E, Mid-Term Evaluation Report (1994-1998) and finally the Impact Evaluation of the project. The MES has also done thematic studies and assessments. The consultants have produced more than 40 reports during the project period. The work of the service provider on MES is commendable, and the quality of the progress reports is satisfactory.

110. Even in the light of such quality reporting, there is serious doubt about their use by project management. It is interesting to note the UNOPS Supervision Mission of 19-30 April 1998, indicating that "Several pertinent observations made by the service provider for the MES, were never informed to the line departments like the LGED and BWDB. Hence, no remedial action was taken. The project coordinator should ensure that the M&E report is supplied to the concerned agencies and follow-up action is taken on the recommendations".

111. From available documentary evidence as well as the present mission intervention, concerns can be raised that the recommendations have not been used by the PMU as a tool for changing the course of project when preparing the annual work plan and budget. Also, it should be noted that although a monitoring work plan was developed, the service provider/consultants failed to develop appropriate indicators for the component objectives. This is vital for analysing the impact of a project.

112. Assessing impact implies the measurement of change, which presumes knowledge of the pre-change situation and of indicators by which to measure the change. If the impact of project interventions on rural poverty was to be quantified, selected baseline impact indicators should have been clearly identified prior to or early in the project. They should thereafter have been monitored, either as part of a regular MIS or a series of specifically focused case studies or small-scale surveys/ assessments. Suitable indicators would reflect and be measured in terms of the project's stated objectives and expected component/activity outputs.

113. In the absence of baseline data the impact of the project had to be worked out by the service provider, against a "without project" scenario. As indicated above it is important to design and implement a comprehensive MES with the active participation of the stakeholders in any future poverty alleviation project. The system should evaluate yearly the project process and impact, with a specific focus on household food and nutrition security, livelihood opportunities, beneficiary empowerment – emphasizing women and the far backward population as well as health and socio-economic indicators. It could be contracted out to an independent, competent institution but with the danger that the project would have little ownership of the results obtained.

114. Finally, it should be noted that the project should have been guided by implementation manuals, such as (i) overall project implementation guidelines and (ii) a MES manual. The manuals can be critical in ensuring that appropriate steps are taken and procedures carried out in project implementation and delays minimized. The manuals should have been formulated in the project's first year, with MES tested to ensure the appropriateness to project requirements.

V. PERFORMANCE OF PARTNERS

A. Performance of IFAD

115. As an early step in bringing substantial levels of investment to Netrakona district, the project represented a major step forward. The development principles and approaches were not new to the

area that had previously implemented donor-assisted projects, such as: WB/ODA-financed Agricultural Support Services Project, Integrated Pest Management Project financed by UNDP and DANIDA, etc. There was already considerable experience in working with the poor. IFAD also had substantial experience in pro-poor development work.

116. There were some deficiencies in the AR, such as the failure to include funds for NGOs to form and train agricultural credit groups. This seriously delayed full implementation. With hindsight the agricultural credit component should have been planned in more detail, and specific assurances sought from AB regarding lending modalities. Too much reliance was placed on the apparent good experience with bank lending in MSFDP Kurigram, but without giving direct support to the bank and without a large, bilaterally funded, technical assistance to manage the lending.

117. It is instructive to note that at the time of approving the Loan, the IFAD Executive Board stressed: (a) the need for close monitoring of the project impact on the beneficiaries; and (b) setting up scheme management committees who would continuously undertake the operation and maintenance of their schemes. However relevant these issues are for poverty alleviation and sustainable development, they have not been given priority during the project implementation. As per the project design, the project components were to be implemented independently. Nevertheless, a degree of responsibility must lie with IFAD and UNOPS for the project's apparent lack of focus on achieving positive interactive effects and synergy between investments in attaining the project objectives.

B. Performance of UNOPS

118. During the implementation, IFAD, largely through UNOPS, maintained close involvement in the project. UNOPS conducted eight annual supervision missions and one follow-up mission, giving considerable guidance on administrative and technical matters and recommended successive operational adjustments to improve implementation. Missions were always headed by the responsible UNOPS officer and generally included one or more specialist consultants in fields relevant to the project. UNOPS was also represented at the workshop held to discuss the project mid-term review in 1999. Supervision reports were comprehensive in coverage and streamlined in a manner that permits comparisons between successive reports on implementation status and the responsiveness of the partners to issues of concern.

119. It should be noted that the borrow-pit fish ponds and embankment tree planting were specific recommendations of the UNOPS missions, who should have known that the activities were outside the normal function of the DAE and therefore difficult to implement effectively. That said, the UNOPS mission of April 1999 agreed with PMA's recommendation not to implement borrow-pit fishponds – but by then the proposal was in the revised PP and so was seen by DAE as having to be done although no one had any expectation of success.

120. Supervision missions went to great lengths to give continual, constructive guidance to project implementation. However, the fact that project interventions were not made as part of cohesive action programs to improve beneficiaries' economic and social wellbeing but continued to be made as an aggregation of discrete activities, is disappointing. Such technical matters should have received closer attention during supervision and better-reflected UNOPS' wealth of operational experience.

121. UNOPS made great efforts to improve project performance monitoring and the recording of information to permit ongoing assessments of effectiveness and efficiency and periodic quantitative evaluations of impact. Nevertheless, the partner implementing agencies continued to focus on physical and financial progress monitoring rather than efficiency and impact monitoring.

C. Performance of Government and its Agencies (including project management)

122. Overall, the performance of Government of Bangladesh has been responsible and responsive. The existing policies and the National Strategy for Economic Growth and Poverty Reduction, as well as continuing efforts made to refine and harmonize policies, will further support rural development and poverty reduction. The Government's positive perception of the project was perhaps best reflected by the fact that counterpart funding contributions have been made available as required and in some cases in advance of contractual obligations. Given the low capacity of public services in the Netrakona

district at the time of project inception, the achievements of the region in the planning and management of field operations are impressive. Still, some scope for further improvement remains at the district and national levels.

123. The project was managed at district level by a project co-ordinator through a PMU, based in Netrakona town. The PMU was the focal point for the oversight of project planning, implementation and monitoring. The management, implementation of the agricultural development support component, polder rehabilitation and the rural infrastructure components, were the responsibility of the other project directors of the DAE, BWDB, and the LGED respectively. Each of the different directorates had separate bank accounts, and the disbursements were monitored by the accountants in charge. A district project coordinating committee headed by the project coordinator was established. The PMU was responsible for guiding the preparation and collation of annual plans and budgets by the project partners and arrange their submission to the Inter-Ministerial Project Steering Committee for approval.

124. After a completion of a project, it is difficult to identify deficiencies in the project management both at the national and the district levels by a mere literature survey. Also, there was no serious criticism indicated by the supervision missions. But it is clear that the project's performance and effectiveness was affected by the lack of formal implementation guidelines, developed by the project to maintain a focus on the project aim and directives, and measure project impact in relation to stated outputs and objectives.

125. The mission was asked to assess the role, strengths and weaknesses of CBOs and NGOs participating in the project. The mission found that the project did not make any tangible effort to involve CBOs in project planning and implementation, nor did it include any activity aiming at identifying and strengthening CBOs. The Union Parishad was not even invited to be member of the *District Project Coordination Committee*. Accordingly, some of the people interviewed during this mission and the beneficiaries at the final workshop in Netrakona felt there was hardly any participation, transparency and local accountability under the project.

D. Performance of Non-Government and Community-Based Organisations

126. As pointed out by the PCR, the project owes much of its success in reaching the target group to NGOs. However, as the NGOs had virtually no contact with CBOs and to Union Parishads, their activities were not subject to any local accountability**.** Only the Netrakona-based NGO (SUS) was found to have a comprehensive programme aiming at strengthening Community-based Organizations (CBO) and civil society. SUS is deeply rooted in Netrakona's socio-cultural context. Its programmes and activities aiming specifically at strengthening civil society, however, were not supported by the project.

127. The role of NGOs in establishing participatory organisations for O&M in relation to BWDB's and LGED's infrastructure development component was less effective. Only two NGOs (PMUK and CDA) were given the mandate to contribute to this goal by initiating the planting of trees on embankments and fish culture in borrow-pits. This work was not very successful, indicating that NGOs do not necessarily have the capacity to enhance community participation in O&M. Indeed, NGOs are sometimes erroneously believed to be 'experts' in community participation and for their long experience in group formation. However, there is a major difference between forming groups for the delivery of project services and mobilising people for the management of public goods.

128. The mission also noted that only three NGOs involved in the project had previous experience in Netrakona district, whereas the remaining six started to work there only in relation to the project. The PAR identified 17 local, national and international NGOs in all operating in Netrakona. Apparently, several NGOs with programmes in Netrakona declined to participate in the project, an issue that should have been clarified during appraisal.

129. The NGOs tended to feel that they were contractors rather than partners in the project. Though their representatives were members of the Project Coordination Committee, they had no say in project management and were only informed about the PMU decisions.

VI. OVERALL ASSESSMENT AND CONCLUSIONS

130. The project, with its emphasis on agricultural development, polder rehabilitation, credit and strengthening of the rural infrastructure, made a significant contribution to the socio-economic development of Netrakona district.

131. Opportunities exist to build on the experience gained from project implementation. This is particularly the case for other more recent IFAD-supported initiatives in Bangladesh. Similarly, there are opportunities to consolidate achievements already made to stimulate economic growth and alleviate poverty.

132. The project had a high profile in Netrakona, thereby highlighting the critical importance of poverty reduction work and encouraging the co-operation of stakeholders. It was instrumental in encouraging the adoption of a more integrated approach to agricultural development planning at district and national levels, to the benefit not only of the project itself but also of other rural development projects and programmes.

133. Substantial efforts were made to improve the project's poverty reduction focus. Staff capabilities have been enhanced through training in interactive skills in dealing with rural communities as well as in specialised technical skills. Beneficiaries directly benefiting from project-supported interventions have generally appreciated the support. It was important for them to take an active role as partners in the development process, organize themselves to access support and begin to develop a sense of 'ownership' of facilities.

134. However, the importance of participation for achieving the objectives of the project, as emphasised in the AR and the PP, was not fully reflected in the implementation of the project. The NGOs, who were to play a key part in introducing participatory approaches through group mobilization, became involved only in a later phase of the project because of an unfortunate oversight in the original budget. Regrettably the NGOs failed to build links with civil society, hence the project did not become fully embedded in the wider Netrakona community.

135. While the working relationship between the participating government agencies and the NGOs did not always run smoothly, useful experience was gained in co-operation.

136. What was greatly lacking was a strategy to sustain the project's achievements, including the beneficiary credit groups that were established during the project period.

137. It is true that farmers who have adopted new technologies are likely to continue to reap higher profits, but many other farmers will still need to support of the extension services. However, other DAE projects will to some extent have made up for the reduction in DAE activities that has occurred since the end of the project.

138. The question remains, therefore as to what extent these new the approaches and interventions can be replicated, unless there are substantial increases in funding and the capacity of the partner implementing agencies, including staff members, is increased. Neither of these conditions is likely to occur in the immediate future, suggesting that further adjustments to institutional arrangements and operational relationships between the public sector, private sector, NGOs and the civil society will need to be made.

139. High ideals are enshrined in the AP and PP. Not surprisingly these have proved difficult to fulfil. The learning process, which requires a critical approach, willingness to change, flexibility, commitment and participation, may not always thrive in large organisations, however, well meaning.

140. For an ambitious project of this sort a more direct involvement by IFAD in implementation is recommended, together with a greater use of specialists in community mobilization, with local as well as international experience.

VII. INSIGHTS AND RECOMMENDATIONS

A. Agriculture Component

141. The project played a significant part in encouraging the diversification of cropping and raising farming incomes – a development which should prove to be sustainable. But weaknesses in design and implementation will limit its impact on the livelihoods, particularly of the marginal farmers and the landless, although it should be noted that the emphasis on vegetables was particularly helpful to farmers with little land, including women cultivating homestead plots only.

142. While the project was based on a participatory approach in which the community would be involved as partner, feel a sense of ownership and carry forward project initiatives, the implementation was often far from participatory, and resembled more a traditional – and less effective – approach to extension. This top-down approach was reflected in the Needs Assessment process, which acted as an imperfect guide to the real needs of farmers. Another factor would appear to have been the way the DAE interpreted Needs Assessment data. Not surprisingly, it may have given priority to the needs, which it could respond to as a department.

143. The potential for livestock development appears to have been given low priority. Experience elsewhere in Asia and Africa shows that with the latest advances in breeding and husbandry, livestock can make a significant contribution to family nutrition and income, and it is readily adopted by the poorest families. An example might be stall-fed up-graded dairy goats. The 1998 Supervision Mission concluded that the low priority given to livestock was the result of inadequate collaboration between DAE and the Department of Livestock, and subsequently the project retained a livestock specialist who ran useful training courses. An important step but too late in the project to be of much influence. Future IFAD initiatives should not overlook the livestock sector.

144. The implementation of the participatory farm-based research component was singularly inadequate – a serious failure in view of the importance of agricultural innovation. Farm-based research, using a participatory approach, has been shown in Bangladesh and in many other countries to be an important in the process of agricultural innovation. However, the component was not implemented with vigour, and momentum was only restored near the end of the project, following comments by the supervision mission.

145. There was no budget for group mobilisation in the AR and the PP and the omission was not corrected until 1998/99, consequently delaying the involvement of the NGOs until then. Inevitably this will impact on the sustainability of the project. Group mobilization and indeed participatory approaches in general were further hindered by a lack of relevant expertise in the PMU. This is a deficiency that IFAD should avoid in future projects with a significant participatory element.

146. Lack of coordination between the DAE and the NGOs hindered the development of the project. More careful planning is required with future projects to avoid this.

147. The project closure was followed by a considerable drop in the DAE budget, preventing it from maintaining the new momentum given to its agricultural development work. If this situation is not remedied, low morale will prevail in the service and the invigorating and constructive spirit of the project years will be lost.

Recommendations

- Implementation was far from participatory. Greater expertise in participatory development should be drawn into the planning and implementation of future projects which aspire to a participatory approach.
- Greater expertise is also required in group mobilisation in future projects.

- As implemented the Needs Assessment process (FINA – part of the national NAEP) was an imperfect guide to the real need of farmers. Greater expertise in the participatory approach and group mobilization would also help in this respect.
- The potential for livestock development should be given higher priority in future projects of this kind.
- Higher priority should also be given to farm-based participatory research.
- Where NGOs are involved in government projects more effective coordination between the two is vital.

B. Polder Rehabilitation and Management

148. The mission found that BWDB's polder schemes play a pivotal role in the livelihood of people in Netrakona and are highly appreciated by the public. However, the project succeeded neither in pursuing a participatory approach in planning and implementation, nor in developing any viable organisational framework for O&M. Some people believe that if they had been involved in detailed planning, several project works (drainage outlets, irrigation inlets) could have been more suited to local needs. They also believed that the quality of works would have been better if their representatives (village leaders and the Union Parishad) had been given a role in monitoring and supervising the contractors.

149. In any case, the sustainability of this vital hydraulic infrastructure is seriously threatened by the absence of viable O&M mechanisms.

150. Some of the problems mentioned above were repeatedly pointed out by supervision missions, but they were apparently not considered serious enough to call the attention of donors' and policy makers. This gives the impression that progress, supervision and evaluation reports were produced as required, and contained relevant information, but they were not really used as management tools

Recommendation

- The current practice of handing over O&M responsibilities for major hydraulic infrastructure to local communities, in the name of 'participation,' has led to an institutional vacuum, because nobody is formally responsible. This deficiency should be remedied when planning future projects.

C. Rural Infrastructure

151. There was a lack of appropriate budgetary allocations for maintenance in the project resulting in neglect of infrastructure.

152. Insufficient time was given for the beneficiaries to have a positive contribution to the planning and the implementation and also supervision of such activities.

Recommendations

- There should be a mechanism to ensure the sustainability of the rural infrastructure developed under a project, including beneficiary training for operation and maintenance. This may demand that future projects refuse to rehabilitate existing infrastructure, and so provide an incentive for routine maintenance.

- Identification and construction of civil works should not start until group formation is completed.

D. Credit

153. While the RLF and its support for IGA can be said to have largely met its objectives, the agricultural credit component failed to provide a sustainable, replicable model of channelling agricultural credit to resource poor farmers. The mixed experience of the pilot credit delivery raises certain issues and lessons:

154. The mixed success stems from an inherent flaw in the project design. The credit package further piloted a well-known success in Bangladesh, namely micro credit delivery through groups of borrowers. This particular segment of the finance market did not really require further piloting. The substantive objective of the pilot —agricultural credit with NGO intervention – was never seriously designed, requiring as it does for its success, considerable modification in both NGO and banking cultures. Clearly defining the core goals of a project and allocating an appropriate mix of resources to its implementation thus emerges as the first and foremost lesson of this project.

155. An analysis of the household livelihood situation in the project area should have revealed the overwhelming share of agriculture and related activities in the livelihood portfolio of poor households (over 80%). It follows, therefore, that this segment of the portfolio should have been the focus in the design. This would have led to the central all-encompassing role for agricultural credit in the overall credit package

156. The issue of targeting bedevilled the implementation of the project. The focus of the RLF for IGA on the landless (owning less than 0.50 acre) and the agricultural credit component on the small and marginal farmers (owning between 1-3 acres) is an artificial divide. It arises from a common perception of livelihood patterns in resource poor regions of south Asia, whereby land supply is stressed and inelastic. In this situation, the lack of formal tenure should not lead to a conclusion of landlessness, since both the so-called landless as well as small and marginal farmers resort to leasing-in of land on informal tenancy to expand their production base and leverage their labour potential.

157. Stated differently, agriculture constitutes the dominant share in the livelihood portfolio of the landless respectively small as well as marginal farmer alike, even if legal and land distribution issues force poorer households into inventive ways to access the land. In effect, the landless are also bona fide agriculturists albeit without formal title to land. Hence, any attempt to address the livelihoods of landless respectively small and marginal farmers should realize the primacy of agriculture in their livelihood portfolio. The conclusion is that the landless households continued to self-finance and borrow from the informal credit market to fund their agricultural operations, while receiving some support for IGA that may have provided additional incremental income. Had the artificial division between the landless and small and marginal farmers not existed, the project could have explored alternative institutional designs to channel credit for a package of activities that included agriculture credit and IGA in a more seamless manner.

158. Considering that the pilot sought to create a replicable model for linking small and marginal farmers with institutional credit, it appears surprising that virtually no milestones for policy reform of the agricultural sector as a whole were negotiated with government counterparts. This dialogue could have covered issues of tenure, input supply, extension, marketing and price support, input subsidies, etc.

159. While the project did provide for extension and technical inputs to support the agricultural credit package, discussions with line departments do not suggest that an integrated approach to farmer needs has been main-streamed. The lesson for IFAD and government partners is to examine the integrated picture and build in components of market potential, upgrading of skills and wider linkages to markets in any support for agricultural productivity and income generating activities.

160. The unit size of credit invested for IGA was higher than the comparable size of the credit package in the agricultural sector, and this skewed distribution implies a higher investment in the services sector (towards the landless) than in the primary sector (small and marginal farmers).

Recommendations

- As the PKSF caters essentially to the needs of the landless, there is an urgent need for a specialised agency focused on the needs of the marginal and small farmers. Earlier supervision missions had suggested the establishment of a Rin Krishi Foundation to serve the needs of agricultural credit flows. This foundation could be a specialised institution with experts and

agricultural specialists catering to the entire gamut of farmer needs, agronomic practices, training, crop diversification, insurance etc.

- The proposed foundation could also be charged with the supervision and monitoring of other agro-related projects, including IFAD's. It could finally be the custodian of the RLF and the attendant management responsibilities
- IFAD should factor in a more rigorous pre-project planning phase and a deeper understanding of the livelihood and tenurial situation before interventions are designed.
- IFAD should lay out a broad roadmap for policy dialogue at the outset of a project with government partners and mark its progress along well-defined milestones.

E. Project Management Issues

161. The inclusion of the project director-designate in the capacity of an observer in the IFAD appraisal missions would have help him/her gain experience and knowledge about the project concept, implementation procedures and develop working arrangements with stakeholders required immediately after the start-up of the project. This would help speed up the start of the project and avoid discrepancies between the AR and PP.

162. During the early stages of implementation project, manuals should have been prepared such as: Project Implementation Manual, Training Manual, Monitoring and Evaluation Manual.

163. Base-line studies of the target communities would have helped identify indicators of beneficiary empowerment, gender mainstreaming, poverty, farming systems, livestock, income-generating activities and rural infrastructure and integration of other national programmes for different than as covered by the project. These indicators could then have been used to assess the future impact of the project.

Recommendations – Project Management

- The designated project coordinator should be included as an observer in future IFAD Appraisal Missions.
- During the early stages of a project manuals should be prepared covering, for instance, implementation, training, monitoring and evaluation.
- A base-line survey should be undertaken in the early stages of a project in the target communities.

F. Participation

164. The project failed to promote community participation, as the AR did not provide any clear concepts and guidance to translate IFAD's general commitment towards participation in concrete operational strategies. Also, the project's implementing agencies did not have the required capacity and commitment to adopt a participatory approach, and the technical assistance to the project was qualitatively and quantitatively insufficient to promote an institutional change. Further, the project's progress with enhancing community participation was not monitored and hardly supervised, and even when major deviations from the project's intention to promote participatory planning were identified, no corrective actions were ever taken. In conclusion, the project's limited achievements indicate that it is not enough to declare commitment to participation to make it happen. Thus, if IFAD wants to avoid major discrepancies between declared objectives and strategies and the achievements, IFAD needs either to be less ambitious, work through implementing agencies with a proven capacity in this domain, or provide for more technical assistance and supervision.

165. Even though the project's target groups were women, small and marginal farmers, no strategy was developed to ensure that these categories of people would indeed get priority. The gender and socio-economic status of project beneficiaries was not monitored. The project's achievements with reaching its target group did not gain the attention of supervision mission either, nor was the project's impact on poverty and gender equity systematically addressed in the final evaluation.

166. It is important that project targets and objectives are translated into clear operational strategies and closely monitored and supervised so that progress in reaching the target group against set targets can be measured.

167. The project systematically ignored CBOs and LEBs. Union Parishads, which at present constitute the only democratically elected grassroots level organisations were not even invited to be members of the project's District Coordination Committee. To achieve local accountability and transparency Union Parishads should have be actively involved throughout the project.

168. The possibility of introducing cost sharing arrangements with UP (which could for example contribute to 10% of the capital investment and being bound to set up an O&M fund) could be a strategy to mobilise local resources and would enhance a sense of ownership for externally funded rural infrastructure development projects.

169. IFAD should be more critical towards beneficiary contributions consisting of 'voluntary donations' of land. In Bangladesh such donations are rarely voluntary and people are forced to surrender their private properties to projects. Through this process people become landless and lose their livelihood. Several donors recognised that due to the above-mentioned reasons, such forms of 'beneficiaries' contribution' are not acceptable. In World Bank projects, for example, compensation for land losses and other assets is mandatory and all people who loose their home, access to resources and employment are entitled to compensation and assistance in the restoration of their livelihood.

170. Within the project, strategies for people's participation in O&M were developed in complete isolation, without assessing their compatibility with national policies. Lessons and experiences of other water sector development projects were ignored. This resulted in a non-viable approach towards O&M threatening the sustainability of the project-funded infrastructure. For example, at the time of the project, the Ministry of Water Resources had officially approved the *"Guidelines for People's Participation in Water Development Project"* (MOWR 1995), which in principle should have guided the participatory approach to be adopted in all BWDB schemes, to which none of the project documents refers.

Recommendations - Participation

- The enhancement of participatory development requires sound concepts and implementation strategies, committed implementing agencies, careful monitoring and supervision, and ultimately, sanctioning mechanisms in case major deviations occur during project implementation.
- Union Parishads should be actively involved in project planning, implementation, monitoring and supervision and should have some decision-making authority.
- IFAD should be more critical towards 'voluntary donations' of land which in fact are rarely voluntary. IFAD should consider adopting the World Bank's safeguard policies, in particular OP 4.12 (Resettlement).
- IFAD should be more critical towards NGOs. Many do not differ greatly from private consulting firms (with whom they often have close links). NGOs may be best qualified for the implementation of micro-credit programmes but have little expertise and vision when it comes to play a role in organising groups for the management of public goods, such as water management and rural infrastructure.
- IFAD should make an active effort to conceptualize and plan projects within the framework of national policies and coordinate with other projects.

GUIDING FRAMEWORK FOR EVALUATION: RURAL POVERTY IMPACT, SUSTAINABILITY, EFFECTIVENESS, INNOVATIONS AND REPLICABILITY

MAIN DOMAINS OF IMPACT	Key Questions for Impact Assessment in Rural Communities Affected by the project (changes to which the project has contributed)	Assessment of change (1)			Reach of change (2)		Assessment of Project contribution (3)	Dynamic Processes Triggered by the Project** (4)	Sustain-ability Potential *** (5)
		Presence and Direction of change (+) (0) (-)	What has changed (Indicators)	Extent of Change (Rating)* 4/3/2/1	How many (households and people)	Who (Poor/ poorest/ better of)	4/3/2/1	4/3/2/1	4/3/2/1
I. Physical and financial assets	1.1 Did farm households' physical assets change (i.e. farmland, water, livestock, trees, equipment, etc.)?	+	trees and water from irrigation	2	Data not available	Poor	3	3	3
	1.2 Did other household assets change (houses, bicycles, radios other durables, etc.)	0	-	-	-	-	-	-	-
	1.3 Did infrastructure and people's access to markets change? (transport, roads, storage, communication facilities, etc.)	+	Link roads	2	50,000 hh	Poor	2	2	2
	1.4 Did households' financial assets change? (savings and debts)	+	Savings	2	10,000 hh	Poor	3	2	2
	1.5 Did rural people's access to financial services change? (credit, saving, insurances, etc.)	+	Credit savings	2	15 000	Poor	3	2	2
	1.6 Did the extent of security in access to assets change?	0	-	1	-	-	1	1	1
	1.7 Other changes in physical and financial assets of rural people?	+	Livestock, petty business	2	10 000	Poor	3	2	2
II. Human assets	2.1 Did children's nutritional status change?	+	improved nutrition	2	Data not available	Poor/ poorest	3	3	3
	2.2 Did people's access to potable water change?	N/A	-	-	-	-	-	-	-

* Rating: 4= High; 3= Substantial; 2= Modest; 1= Negligible

*** Rating: 4= Highly likely, 3= Likely; 2= Unlikely; 1= Highly Unlikely.

** This refers to cases where even though impact achievement is modest or negligible, the project in question has set in motion dynamic positive processes that will eventually lead to substantial impact achievement. The identification of the existence of these processes is left to the evaluators judgement on a case by case basis.

GUIDING FRAMEWORK FOR EVALUATION: RURAL POVERTY IMPACT, SUSTAINABILITY, EFFECTIVENESS, INNOVATIONS AND REPLICABILITY

MAIN DOMAINS OF IMPACT	Key Questions for Impact Assessment in Rural Communities Affected by the project (changes to which the project has contributed)	Assessment of change (1)			Reach of change (2)		Assessment of Project contribution (3)	Dynamic Processes Triggered by the Project** (4)	Sustain-ability Potential *** (5)
		Presence and Direction of change (+) (0) (-)	What has changed (Indicators)	Extent of Change (Rating)* 4/3/2/1	How many (households and people)	Who (Poor/ poorest/ better of)	4/3/2/1	4/3/2/1	4/3/2/1
	2.3 Did access to basic health and disease prevention services change?	N/A	-	-	-	-	-	-	-
	2.4 Did the incidence of HIV infection change?	N/A	-	-	-	-	-	-	-
	2.5 Did maternal mortality change?	N/A	-	-	-	-	-	-	-
	2.6 Did access to primary education change?	N/A	-	-	-	-	-	-	-
	2.7 Did primary school enrolment for girls change?	N/A	-	-	-	-	-	-	-
	2.8 Did the workload of women and children change?	N/A	-	-	-	-	-	-	-
	2.9 Did adult literacy rate and/or access to information and knowledge change?	+	Agric expertise	2	Data not available	Poor	2	2	2
	2.10 Did people's professional skills change?	+	Expertise of External staff	3	-	External staff	3	3	3
	2.11 Other changes in human assets?	N/A	-	-	-	-	-	-	-
III. Social capital and people empowerment	3.1 Did rural people's organisations and institutions change?	0	N/A	-	-	-	-	-	-
	3.2 Did social cohesion and local self–help capacity of rural communities change?	0	N/A	-	-	-	-	-	-

GUIDING FRAMEWORK FOR EVALUATION: RURAL POVERTY IMPACT, SUSTAINABILITY, EFFECTIVENESS, INNOVATIONS AND REPLICABILITY

MAIN DOMAINS OF IMPACT	Key Questions for Impact Assessment in Rural Communities Affected by the project (changes to which the project has contributed)	Assessment of change (1)			Reach of change (2)		Assessment of Project contribution (3)	Dynamic Processes Triggered by the Project** (4)	Sustain-ability Potential *** (5)
		Presence and Direction of change (+) (0) (-)	What has changed (Indicators)	Extent of Change (Rating)* 4/3/2/1	How many (households and people)	Who (Poor/ poorest/ better of)	4/3/2/1	4/3/2/1	4/3/2/1
	3.3 Did gender equity and/or womens' conditions change?	+	Access to credit/increased economic independence and women's status in household and community	-	-	-	-	-	-
	3.4 Did rural people feel empowered vis-à-vis local and national public authorities and development partners? (Do they play more effective role in decision making?)	0	N/A	-	-	-	-	-	-
	3.5 Did rural producers feel empowered vis-à-vis the market place? Are they in better control of inputs supply and marketing of their products?	0	N/A	-	-	-	-	-	-
	3.6 Did migration out of the area change?	0	N/A	-	-	-	-	-	-
	3.7 Did access to information and knowledge change?	+	Info and knowledge about horticulture increased	-	-	-	-	-	-

GUIDING FRAMEWORK FOR EVALUATION: RURAL POVERTY IMPACT, SUSTAINABILITY, EFFECTIVENESS, INNOVATIONS AND REPLICABILITY

MAIN DOMAINS OF IMPACT	Key Questions for Impact Assessment in Rural Communities Affected by the project (changes to which the project has contributed)	Assessment of change (1)			Reach of change (2)		Assessment of Project contribution (3)	Dynamic Processes Triggered by the Project** (4)	Sustain-ability Potential *** (5)
		Presence and Direction of change (+) (0) (-)	What has changed (Indicators)	Extent of Change (Rating)* 4/3/2/1	How many (households and people)	Who (Poor/ poorest/ better of)	4/3/2/1	4/3/2/1	4/3/2/1
	3.8 Other changes in social capital (e.g. more equitable access to assets in general)	0	N/A	-	-	-	-	-	-
IV. Food Security (Production, Income and Consumption)	4.1 Did farming technology and practices change?	+	Improved crop varieties, and vegetables	3	Insufficient data	Poor/better off	3	3	3
	4.2 Did agricultural production change (area, yield, production mix, etc.)?	+	Crop yields, diversification into vegetables	3	Insufficient data	Poor/better off	3	3	3
	4.3 Did non-farm activities/employment/income opportunities change?	N/A	-	-	-	-	-	-	-
	4.4 Did household real income and/or consumption level and pattern change?	+	Income increased	2	Insufficient data	Poorest/ poor/ better off	2	2	2

GUIDING FRAMEWORK FOR EVALUATION: RURAL POVERTY IMPACT, SUSTAINABILITY, EFFECTIVENESS, INNOVATIONS AND REPLICABILITY

MAIN DOMAINS OF IMPACT	Key Questions for Impact Assessment in Rural Communities Affected by the project (changes to which the project has contributed)	Assessment of change (1)			Reach of change (2)		Assessment of Project contribution (3)	Dynamic Processes Triggered by the Project** (4)	Sustain-ability Potential *** (5)
		Presence and Direction of change (+) (0) (-)	What has changed (Indicators)	Extent of Change (Rating)* 4/3/2/1	How many (households and people)	Who (Poor/ poorest/ better of)	4/3/2/1	4/3/2/1	4/3/2/1
	4.5 Did the frequency of food shortage change?	+	More consistent supplies of food throughout year, more even prices	2	Insufficient data	Poorest/ poor/ better off	2	2	2
	4.6 Did household food security change?	+	More consistent supplies/ fewer price fluctuations	2	In Production	Poorest/ poor/better off	2	2	2
V. Environment and common resource base	5.1 Did the natural resource base status change (land, water, forest, pasture, fish stocks…)?	-	Depletion of fish resources as result of polder rehab	2	Insufficient data	Poorest/ poor/ better off	-	-	-

GUIDING FRAMEWORK FOR EVALUATION: RURAL POVERTY IMPACT, SUSTAINABILITY, EFFECTIVENESS, INNOVATIONS AND REPLICABILITY

MAIN DOMAINS OF IMPACT	Key Questions for Impact Assessment in Rural Communities Affected by the project (changes to which the project has contributed)	Assessment of change (1)			Reach of change (2)		Assessment of Project contribution (3)	Dynamic Processes Triggered by the Project** (4)	Sustain-ability Potential *** (5)
		Presence and Direction of change (+) (0) (-)	What has changed (Indicators)	Extent of Change (Rating)* 4/3/2/1	How many (households and people)	Who (Poor/ poorest/ better of)	4/3/2/1	4/3/2/1	4/3/2/1
	5.2 Did exposure to environmental risks change?	+	Reduced risk of early flooding	3	Data on polder pop not available	All hh whose livelihood relies on agric	3	3	2
	5.3 Other change in the environment?	0	-	-	-	-	-	-	-
VI. Institutions, policies, and regulatory framework	6.1 Did rural financial institutions change?	0	-	-	-	-	-	-	-
	6.2 Did local public institutions and service provision change?	+	Improved services by implementing agencies	3	Insufficient date	Poor/ poorest	3	3	2
	6.3 Did national/sectoral policies affecting the rural poor change?	N/A	-	-	-	-	-	-	-
	6.4 Did the regulatory framework affecting the rural poor change?	N/A	-	-	-	-	-	-	-
	6.5 Other change in institutions and policies?	N/A	-	-	-	-	-	-	-

MAIN DOMAINS OF IMPACT	Key Questions for Impact Assessment in Rural Communities Affected by the project (changes to which the project has contributed)	Expectation (Project stated objectives) (6)			
		Change What?	Change How Much?	Reach How Many?	Reach Who?
I. Physical and financial assets	1.1 Did farm households physical assets change (i.e. farmland, water, livestock, trees, equipment, etc.)?	**Fruit for consumption and sale/ timer for building and sale/ higher yields from irrigation**	**No data**	**No data**	**Poor**
	1.2 Did other household assets change (houses, bicycles, radios other durables, etc.)	-	-	-	-
	1.3 Did infrastructure and people access to markets change? (transport, roads, storage, communication facilities, etc.)	**Rural Infrastructure**	**Significantly**	**Not specified**	**Poorest/ poor**
	1.4 Did households' financial assets change? (savings and debts)	**Savings Physical assets**	**Significantly**	**15,000 hh**	**Poorest/ poor**
	1.5 Did rural people access to financial services change? (credit, saving, insurances, etc.)	**Credit/ savings/ insur**	**Significantly**	**15,000 hh**	**Poorest/ poor**
	1.6 Did the extent of security in access to assets change?	**Provide secure sources of credit**	**Significantly**	**15,000 hh**	**Poorest/ poor-**
	1.7 Other change in physical & financial assets of rural people?	**Provide range of off-farm assets**	**Significantly**	**15,000 hh**	**Poorest/ poor-**
II. Human assets	2.1 Did children's nutritional status change?	**nutritional status**	**no data**	**no data**	**Poor/ poorest**
	2.2 Did people's access to potable water change?	-	-	-	-
	2.4 Did access to basic health and disease prevention services change?	-	-	-	
	2.3 Did the incidence of HIV infection change?	-	-	-	-
	2.5 Did maternal mortality change?	-	-	-	-
	2.6 Did access to primary education change?	-	-	-	-

MAIN DOMAINS OF IMPACT	Key Questions for Impact Assessment in Rural Communities Affected by the project (changes to which the project has contributed)	Expectation (Project stated objectives) (6)			
		Change What?	Change How Much?	Reach How Many?	Reach Who?
	2.7 Did primary school enrolment for girls change?	-	-	-	-
	2.8 Did women and children workload change?	-	-	-	-
	2.9 Did adult literacy rate and/or access to information and knowledge change?	**Production of crops**	**Significantly**	**No data**	**Poor**
	2.10 Did people professional skills change?	**Effectiveness of advice**	**Significantly**	**No date**	**Extra staff**
	2.11 Other changes in human assets?	-	-	-	-
III. Social capital and people empowerment	3.1 Did rural people organisations and institutions change?	-	-	-	-
	3.2 Did social cohesion and local self–help capacity of rural communities change?	-	-	-	-
	3.3 Did gender equity and/or womens' conditions change?	-	-	-	-
	3.4 Did rural people feel empowered vis-à-vis local and national public authorities and development partners? (Do they play more effective role in decision making?)	-	-	-	-
	3.5 Did rural producers feel empowered vis-à-vis the market place? Are they in better control of inputs supply and marketing of their products?	-	-	-	-
	3.6 Did migration out of the area change?	-	-	-	-
	3.7 Did access to information and knowledge change?	-	-	-	-
	3.8 Other changes in social capital (e.g. more equitable access to assets in general)	-	-	-	-
IV. Food Security (Production, Income and	4.1 Did farming technology and practices change?	**Yields/ varieties**	**Insufficient data**	**Insufficient data**	**Poor/ poorest**

MAIN DOMAINS OF IMPACT	Key Questions for Impact Assessment in Rural Communities Affected by the project (changes to which the project has contributed)	Expectation (Project stated objectives) (6)			
		Change What?	Change How Much?	Reach How Many?	Reach Who?
Consumption)	4.2 Did agricultural production change (area, yield, production mix, etc.)?	**Production**	**Insufficient data**	**Insufficient data**	**Poor/ poorest**
	4.3 Did non-farm activities/employment/income opportunities change?	-	-	-	-
	4.4 Did household real income and/or consumption level and pattern change?	**Income/ food consumption**	**Increase of 32.5 % above 2122 Kcal poverty line**	**Insufficient data**	**Poor/ poorest**
	4.5 Did the frequency of food shortage change?	**Regular availability of food/ steady prices**	**Insufficient data**	**Insufficient data**	**Poor/ poorest**
	4.6 Did household food security change?	**More reliable food supplies**	**Insufficient data**	**Insufficient data**	**Poor/ poorest**
V. Environment & common resource base	5.1 Did the natural resource base status change (land, water, forest, pasture, fish stocks…)?	**Reduction in fish stocks**	**Insufficient data**	**Insufficient data**	**Poor/ poorest**
	5.2 Did exposure to environmental risks change?	**Risk of losing crop due to early flooding**	-	-	**All hh whose livelihoods depend on land inside polder**
	5.3 Other change in the environment?	-	-	-	-
VI. Institutions, policies, and regulatory framework	6.1 Did rural financial institutions change?	-	-	-	-
	6.2 Did local public institutions and service provision change?	**Agric production/ water control/ rural infra-structure**	**Significant**	**No data**	**Poor/ poorest**
	6.3 Did national/sectoral policies affecting the rural poor change?	-	-	-	-
	6.4 Did the regulatory framework affecting the rural poor change?	-	-	-	-
	6.5 Other change in institutions and policies?	-	-	-	-

MAIN DOMAINS OF IMPACT	Key Questions for Impact Assessment in Rural Communities Affected by the project (changes to which the project has contributed)	Effectiveness Rating (achievement against stated objectives) 4/3/2/1 (7)				Innovative Approaches in achieving Impact 4/3/2/1 (8)	Replicability Potential 4/3/2/1 (9)	Replication 4/3/2/1 (10)
		Change What?	Change How Much?	Reach How Many?	Reach Who?			
I. Physical and financial assets	1.1 Did farm households physical assets change (i.e. farmland, water, livestock, trees, equipment, etc.)?	3	3	3	3	3	3	3
	1.2 Did other household assets change (houses, bicycles, radios other durables, etc.)	-	-	-	-			
	1.3 Did infrastructure and people access to markets change? (transport, roads, storage, communication facilities, etc.)	Link roads	Significant	50,000 hh	Poorest/ poor			
	1.4 Did households' financial assets change? (savings and debts)	Savings services	Significant	15,000 hh	Poor			
	1.5 Did rural people access to financial services change? (credit, saving, insurances, etc.)	Savings/ Credit	Significant	15,000 hh	Poor			
	1.6 Did the extent of security in access to assets change?	-	-	-	Nil			
	1.7 Other change in physical & financial assets of rural people?	Livestock/ petty business	Significant	10,000 hh	Poorest/ poor			
II. Human assets	2.1 Did children nutritional status change?	3	3	3	3	3	3	3
	2.2 Did people access to potable water change?	-	-	-	-			
	2.4 Did access to basic health and disease prevention services change?	-	-	-	-			
	2.3 Did the incidence of HIV infection change?	-	-	-	-			
	2.5 Did maternal mortality change?	-	-	-	-			
	2.6 Did access to primary education change?	-	-	-	-			
	2.7 Did primary school enrolment for girls change?	-	-	-	-			
	2.8 Did women and children workload change?	-	-	-	-			

MAIN DOMAINS OF IMPACT	Key Questions for Impact Assessment in Rural Communities Affected by the project (changes to which the project has contributed)	Effectiveness Rating (achievement against stated objectives) 4/3/2/1 (7)				Innovative Approaches in achieving Impact 4/3/2/1 (8)	Replicability Potential 4/3/2/1 (9)	Replication 4/3/2/1 (10)
		Change What?	Change How Much?	Reach How Many?	Reach Who?			
	2.9 Did adult literacy rate and/or access to information and knowledge change?	2	2	2	2			
	2.10 Did people professional skills change?	3	3	3	3			
	2.11 Other changes in human assets?	-	-	-	-			
III. Social capital and people empowerment	3.1 Did rural people organisations and institutions change?	-	-	-	-	-	-	-
	3.2 Did social cohesion and local self–help capacity of rural communities change?	-	-	-	-			
	3.3 Did gender equity and/or womens' conditions change?	-	-	-	-			
	3.4 Did rural people feel empowered vis-à-vis local and national public authorities and development partners? (Do they play more effective role in decision making?)	-	-	-	-			
	3.5 Did rural producers feel empowered vis-à-vis the market place? Are they in better control of inputs supply and marketing of their products?	-	-	-	-			
	3.6 Did migration out of the area change?	-	-	-	-			
	3.7 Did access to information and knowledge change?	-	-	-	-			
	3.8 Other changes in social capital (e.g. more equitable access to assets in general)	-	-	-	-			
IV. Food Security (Production,	4.1 Did farming technology and practices change?	3	-	-	3	3	3	2
	4.2 Did agricultural production change (area, yield, production mix, etc.)?	3	-	-	3			

MAIN DOMAINS OF IMPACT	Key Questions for Impact Assessment in Rural Communities Affected by the project (changes to which the project has contributed)	Effectiveness Rating (achievement against stated objectives) 4/3/2/1 (7)				Innovative Approaches in achieving Impact 4/3/2/1 (8)	Replicability Potential 4/3/2/1 (9)	Replication 4/3/2/1 (10)
		Change What?	Change How Much?	Reach How Many?	Reach Who?			
Income and Consumption)	4.3 Did non-farm activities/employment/income opportunities change?	-	-	-	-			
	4.4 Did household real income and/or consumption level and pattern change?	2	2	2	2			
	4.5 Did the frequency of food shortage change?	2	2	2	2			
	4.6 Did household food security change?	2	2	2	2			
V. Environment & common resource base	5.1 Did the natural resource base status change (land, water, forest, pasture, fish stocks…)?	-	-	-	-	1	4	4
	5.2 Did exposure to environmental risks change?	3	3	-	All hh whose livelihoods depend on land inside polder			
	5.3 Other change in the environment?	-	-	-	-			
VI. Institutions, policies, and regulatory framework	6.1 Did rural financial institutions change?	-	-	-	-	-	-	-
	6.2 Did local public institutions and service provision change?	3	3	-	3			
	6.3 Did national/sectoral policies affecting the rural poor change?	-	-	-	-			

MAIN DOMAINS OF IMPACT	Key Questions for Impact Assessment in Rural Communities Affected by the project (changes to which the project has contributed)	Effectiveness Rating (achievement against stated objectives) 4/3/2/1 (7)				Innovative Approaches in achieving Impact 4/3/2/1 (8)	Replicability Potential 4/3/2/1 (9)	Replication 4/3/2/1 (10)
		Change What?	Change How Much?	Reach How Many?	Reach Who?			
	6.4 Did the regulatory framework affecting the rural poor change?	-	-	-	-			
	6.5 Other changes in institutions and policies?	-	-	-	-			

APPENDIX 2

IMPLEMENTATION RESULTS

1. The implementation results are summarized below from the working papers prepared by the four members of the mission.

AGRICULTURE

2. The Kranti survey indicates impressive achievements by the project in terms of cropping diversification, greatly increased yields and income. Many farmers will be able to continue to develop their holdings into increasingly profitable enterprises whatever the degree of outside support they receive from Government and the NGOs. In short there is strong evidence that sustainable changes have been brought about by the project.

3. The major impact has been on fruit and vegetable production, initiating the concept of small fruit orchards, popularising homestead vegetable gardening, and introducing new types of vegetables. Ten years ago cauliflower and radish, for instance, were not available in the local markets; now there is a surplus over local demand. Watermelon used to be imported from other parts of the country; now it is extensively cultivated in the district and is marketed as far afield as Dhaka. The area of vegetables grown in the district increased from 2,750 to 8,950 ha between 1995/6 and 1999/2000, an increase of 186%, compared with 78% for other districts in the Mymensingh region.

4. According to the Kranti survey all categories of farmers reported "more profitability" of the technologies as the major reason for adoption, followed by "more yield."

5. The project was not designed to benefit the poorest among the landless and near landless farmers, although they benefited indirectly from project activities. The IGA and related training packages did not meet many of their needs. Further, the discipline of group membership and loan repayment requirements were clearly deterrents. In the view of NGOs at the stakeholders' workshop, convened by the mission in Netrakona on 9 September 2002, lack of provision for the poorest was considered a serious shortcoming in the project design.

Extension methodology

6. At the time that the Netrakona project was being planned a number of changes in the approach to extension were being implemented nationally at field level under the World Bank-financed Agricultural support Services Project. These changes include a move from the contact farmer approach under the old T&V system to the use of groups as the basic extension unit via the Block Supervisor (BS; the inclusion of water management and irrigation of food crops under the DAE, and a move to develop extension messages more suited to local conditions and responding to the needs of the farmers.

7. These changes were in line with IFAD's demand-driven approach to extension, and the Netrakona project provides a valuable and instructive early case study of the New Extension Policy.

8. As stated in the Project Proforma (PP) 4,000 homogenous extension groups, each consisting of about 20 farmers were to be formed, together with 200 women's homestead gardening groups. Suitable NGOs were to be contracted to carry out group mobilization, with the DAE providing the technical input.

9. Delays occurred in contracting the NGOs because no provision had been made for group formation costs in the AR, the PP and IFAD loan agreement, and this omission was not rectified until 1998 when the PP and loan agreement were revised. At the same time the number of groups to be mobilised was revised downwards to 2,100, a total which included the 200 homestead garden groups.

10. Once contracted, the NGOs started the process of group mobilization. However, due the delays, the DAE had already set up its own groups. These had specific functions relating to the introduction of

vegetables, improved varieties of rice and other crops, fruit trees, tree for timber and improved methods of irrigation. Selection was not strictly in accordance with the project's target groups in that medium and large farmers were included.

11. On the advice of the Supervision Mission, steps were then taken by the PMU Extension Specialist to bring the DAE and NGO agricultural groups together. This was only a partial success. The NGOs did not become involved in all the DAE groups, either because they were not located in their operational areas or because they were not considered suitable for mobilization, as the DAE and NGO used different criteria for selection of members.

12. The result was that the two types of group persisted – DAE and NGO. According to the Kranti survey the NGOs formed a total of 1,602 groups. By 2001, 370 had dropped out, 95 were transferred to other NGO programmes and 254 were transferred to the AB for direct funding, leaving a total of 883. There are currently 200 DAE groups.

13. Group formation – on which the extension programme was to be based – has therefore hardly been a success and there is the problem of sustainability of the remaining groups. The DAE groups, which are basically vehicles for the delivery of services, will have difficulty functioning now that the flow of project funds has ceased. The NGO groups, on the other hand, should be stronger because they have been developed as dynamic social groupings with a commitment to self-reliance.

14. Despite the increasing emphasis on social development/mobilization during the life of the project, a group formation specialist was not included in the otherwise formidable array of consultants retained by the project (although a social economist provided an input to the polder component). This area was covered by an extension specialist who was an agronomist.

15. The proposed partnership between the DAE and NGOs with regard to group mobilization and technical support, was a key innovative component of the project, and the considerable delay in implementation amounts to a serious failure on the part of IFAD and the DAE.

Needs Assessment

16. The actual extension programme was based on Needs Assessment, and a continuing dialogue with farmers to monitor and evaluate the work being carried out, as essential steps in the process of adoption or rejection of the proposed innovations.

17. Quite clearly the DAE and the NGOs approached this process in different ways and it is instructive to examine these differences:

18. The DAE conducted Needs Assessment at block level at the outset of the project and thereafter carried out the on-going FINA (Farmer Information Needs Assessment) as provided for under the national New Agricultural Extension Policy (NAEP). In a dialogue with farmers, a list of the ten greatest needs are listed and prioritised. The DAE analyses the response and uses this information to plan its extension programme.

19. Needs that fall outside the field of the DAE, such as livestock, are referred to the relevant department and, where appropriate, to NGOs. As the assessment is conducted by the DAE and as the DAE is the leading government extension service, agricultural needs prioritised by farmers stand a greater chance of being responded to. Assessment meetings are not confined to one category of farmers – small and marginal farmers sit together and inevitably some larger farmers too. Typically, the assessment process may take place over two 2-3 hour sessions.

20. Block supervisors, who will be familiar with their local communities, do their best to respond to farmers but they have only very limited training in relating to groups, in assessing their needs and in mobilization. Supervisors interviewed had attended 1-2 day courses convened by the project on working with communities. Participatory Rural Appraisal (PRA) was referred to in these courses but it appears that what they actually put into practice in the field was nearer to Rapid Rural Appraisal (RRA) which is a cruder and less participatory approach than PRA.

21. They admit that more mobilization is desirable; it is hard, they say, to keep the interest of the farmers. They clearly have a challenging task, not only because of lack of training but principally because the DAE and other departments have a strictly limited capacity to respond.

22. For the purposes of this report the work of Sabalamby Unnayan Samity (SUS) is taken as an example of best practice in the NGO sector. Their approach to community mobilization and needs assessment differs from that of the DAE in a number of important respects. There is no mixing of categories in groups, the groups being strictly homogenous, and the development of the group and identification of needs is carried out by a slow and methodical PRA process.

23. The starting point is the clear definition of the target group: widows, landless people, marginal farmers etc. First a location is identified where little support is already being provided and where the particular skills and experience of the NGO may be appropriate. Then a feasibility study is carried out to assess the potential for a development programme. Discussions follow at individual, small and large group level, as the start of the participatory process. Included in this are diagnostic surveys which provide rudimentary base-line data and enable the people to assess their communities in socio-economic terms. On this basis needs can be articulated.

24. The actual groups are formally established with a written constitution and group officers are appointed: group leader, treasurer, secretary, legal councillor, health councillor etc. In the SAB groups savings by members are compulsory.

25. The NGO will then support the group with training and advice. Where the DAE works with the NGO, Block Supervisors make a technical input to agricultural activities.

26. Experience in Bangladesh and elsewhere clearly demonstrates that groups established in this way stand more chance of becoming viable, sustainable institutions, with a capacity for improving the lot of their members, than rapidly formed heterogeneous groups formed simply as vehicles for extension delivery.

Training/on-farm demonstrations

27. As set out in the PP, the project was to provide training in appropriate cropping technology as well as the use of minor irrigation equipment for water user groups and pump operators.

28. To ensure extension coverage for a large number of farmers, the on-farm trials programme supported topics of interest to IFAD target group farmers and the project provided funds to organize regular field days at the on-farm demonstration site. In each cropping season it was planned to hold at least three field days corresponding to important cropping activities. The intention was to build on the national demonstration programme implemented under the World Bank-supported Agricultural Support Service Project.

29. Demonstration plots were to be selected by beneficiary groups. Identification of relevant local issues were to be made by Needs Assessment carried out by the PMU and the DAE during the first project year. In the light of needs assessment, the specific content of on-farm demonstrations would be decided.

30. It was expected, according to the PP, that trials would focus on HYV rice varieties, fertiliser application, better transplanting techniques, irrigation pump operation and user-efficient on-farm water distribution, as well as on a number of demonstration trials for diversification into other crops such as mustard, lentils, potatoes, cauliflower, tomatoes, eggplant and sugarcane.

31. In addition to training for farmers in cropping technology and water management, funds were also provided for farmers and extension agents to receive training in integrated pest management at the DAE Farmer Field School in Mymensingh. The aim here was to prevent the cumulative negative impact of pesticide usage over time.

32. The Kranti survey assessed the impact of technology demonstrations and associated training programmes on target and non-target farmers in terms of indicators such as changes in area and yield of the crops, use of inputs, technology adoption, income and food consumption. But the evaluation study was limited to 13 selected demonstrations covering crops such as rice, wheat, mustard, vegetables and fruits and cropping patterns over the period 1995-96 to 1999-2000.

33. Mission conclusions on the basis of the AR, PP, PCR and the Kranti survey are as follows:

- While the training and demonstration component clearly achieved its target, it is hard to understand how it managed to do so given the delays in bringing the DAE and the NGOs together to deliver extension through groups. A possible reason is that the target was un-ambitious and would have been greatly exceed if the planned delivery structure had been put in place more speedily.
- The impression remains that DAE approach to training continued to be somewhat top-down and short on participation. Effective extension work depends on a two–way flow of information between the extension agent and the farmer. Both parties need to learn from each other. Imposed approaches and solutions are less likely to be the right ones in these circumstances and adoption will be short lived.
- The Kranti survey notes that the majority of NGO partners did not have either training plans or training manuals for their training staff and group members. This is a deficiency they must make good if they are to provide the necessary support to their groups.
- The Kranti survey notes that there were inadequate links between the DAE and national research institutes. This is a serious omission and is particularly worrying in relation to the farm-based research component.

Farm-based research

34. In addition to the on-farm demonstration/trials component, a programme of on-farm research trials was planned on topics relevant to small and marginal farmers generally and specifically to those farming in the hoar areas.

35. Farm-based research, using a participatory approach, has been shown in Bangladesh and many other countries to be an important strategy in the process of agricultural innovation and its adoption by farmers.

36. The consultants, Bangladesh Engineering & Technology Services (BETS) – who had no previous experience of farm-based research or indeed agriculture - were retained to implement this component. Initially they were contracted for only one year (1997-98) but following the 1998 Supervision Mission the contract was extended be to give sufficient time for validation and verification.

37. A series of trials was carried out over the period 1997-98 to 1999-2000. The Kranti survey evaluated ten of these trials, selected according to the importance of the crop and its location.

38. With regard to adoption, the Kranti survey concluded:

- All the respondent farmers expressed their interest in growing mustard in *T.Aman-Boro* pattern, mustard variety *Tori 7*, the use of single seedlings transplanting package and urea super granules.
- 75% of farmers will continue growing wheat variety *Kanchan* and management of fertilizer packages for *T. Aman*.
- None of the farmers reported adoption of hybrid rice *Alok* and fertilizer package technology for *BRRI dhan 29.*

39. While it is clear that some progress was made with the on-farm research component, the PCR expresses disappointment. It concludes that "on-farm research was not so successful, and did not make a major contribution to extension activities." It notes that the component was contracted out and that there were staffing difficulties. In addition "there was no formal link to public sector research institutes. Some trials were over-complicated, and interpretation of trials results was poor, and generally did not include the economic benefits of adoption."

40. The PCR continues:"…much of the weakness of the extension service can be attributed to not having appropriate technologies and information that meets the needs of small farmers. A larger project would be able to justify a bigger research component, which would carry out more trials, and have more of an input from highly qualified and experienced researchers. Future projects could also include specific provisions to strengthen linkages with existing research organisations."

41. The mission concurs with these conclusions. However, in the mission's view, there were also other reasons for the limited success of the component:

- Both the AR and the PP refer to "participatory" research and extension trials but the word "participation" is not clearly defined and is open to wide interpretation.
- Interviews with DAE staff suggest that they did not fully appreciate the value of participatory on-farm research.
- The final report by BETS emphasises the importance of a "very strong linkage between research and extension" but their concept of participation is limited.
- The PMU must bear some of the responsibility for delays in implementation and limited progress.

Irrigation

42. As referred to before treadle pumps are an important innovation in the irrigation component of the project and a distinct advance on the traditional *dan* **(**shadoof**).** The Kranti survey found that 83% of users will continue to use the machine because it is less expensive, easy to operate, good for cultivation in small areas and also good for vegetable cultivation, especially in homesteads. How widely the pump will be adopted remains uncertain. According to the wholesaler who supplies Netrakona with treadle pumps demand is rapidly falling off because, he believes, that while it is simple to use, it is considered to be too physically demanding.

Marketing

43. As the Kranti survey makes clear, information on production, disposal patterns and marketing of farm products is of great importance, particularly when new crops are introduced. The survey attempted to quantify the disposal pattern and marketing of boro rice, T. aman, wheat and mustard produced by marginal and small farmers who participated in the technology demonstrations.

44. Due to financial constraints these farmers were compelled to sell their products immediately after harvest. In the cases of boro rice, T.aman rice, wheat and mustard, low prices, lack of transport facilities, lack of buyers, lack of storage facilities and credit were identified as the major marketing problems. Sixty % of wheat farmers reported lack of storage as a major marketing problem.

45. During the life of the project the supply of vegetables and fruit from internal sources increased significantly in the Netrakona markets, while the external supply was correspondingly reduced.

46. Vegetable marketing problems encountered by farmers were not investigated by the Kranti survey, but it does refer to problems faced by traders such as shortage of storage, high transport costs, market place congestion, shortage of capital, perishability of produce.

47. Current prices do not suggest that there is a marketing problem- except inevitably at peak harvesting time for crops such as tomatoes- but there could well be serious problems in future for there remains a considerable potential for expansion in production.

48. Group development in Netrakona needs to progress much further before groups become actively involved in the marketing chain. For the time being this is best left to the traders. However, there may be opportunities for farmers to use their groups as a more effective way of relating to traders.

Inputs

49. Many groups contacted reported difficulty with the timely procurement of high quality seed. Indeed *the Study in Improved Seed Supplies of Major Crops Including Vegetables,* carried out for the project in 1999 by Environment, Agriculture and Development Services Ltd (EADS) concluded that the supply of quality seed in Netrakona almost certainly fell well short of demand.

50. There would also appear to be an organisational problem on the part of the groups. Individual members complain about the cost of travelling to their market town and the difficulties of finding what

they need when they get there. There is clearly a role for groups here, not just for seed but also for other inputs. Bulk orders can cut costs and early purchase can be made when supplies are still plentiful.

Coordination of extension services

51. The PCR notes the problems caused by a lack of integration in the extension services. The micro-credit component provided funds for investment in livestock, poultry and fisheries. It had been shown that borrowers needed support and information to maximise returns on this investment, but the DAE only has expertise in crops. Some linkages were made with the departments of livestock and fisheries. However, there was little promotion of improved technologies on the lines agricultural extension until the final year of the project, despite the importance of livestock particularly to landless people and marginal farmers.

52. The reasons for the delay were that the project was designed to promote only agricultural technologies and, following the recommendation of a supervision mission to broaden the scope of the project into livestock, it took time to revise the PP and recruit a livestock specialist. There are two lessons for the future: firstly, design of such projects needs to recognize the holistic nature of rural livelihoods, and allow a multi-sectoral approach where needed; and, secondly, there needs to be flexibility in project implementation to permit changes to be made – although this is difficult to achieve within the confines of the PP system.

DAE –NGO coordination

53. The grafting of internationally funded projects on to existing and usually under-funded local structures can have negative as well as positive effects. This has certainly been the case at Netrakona. On the one hand there was a thoroughly welcome flow of funds and expertise, on the other hand tensions developed between those involved in implementation.

54. The principal problem was the relationship between the DAE DD (who was the PD for the DAE component) and PC. They were of similar rank and located in the same office in Netrakona. This resulted in rivalry and disputes over authority and meant that the NGO activities, managed by the PC, did not mesh with the DAE activities. One particular bone of contention was the first DD's lack of enthusiasm for NGOs.

55. Co-ordination between the DAE and the NGOs was not always as effective as was desirable and a good working relationship remains important particularly with regard to monitoring the income generating activities IGA work. There is no formal structure to facilitate this.

POLDER REHABILITATION AND MANAGEMENT (PRM)

Civil Works

56. Works carried out under the PRM component included re-sectioning of embankments, re-excavation of canals, the provision of new drainage outlets and regulators, and the rehabilitation of existing ones. Most works were completed by PY 3. BWDB's Executive Engineer (XEN) and SDEs in Netrakona informed the mission that the quality of the works was originally good, but that the current physical status of the schemes is not fully satisfactory due the damages caused by recurring floods and the absence of operation and maintenance (O&M) funds.

57. The mission could visit only two full flood protection schemes as the submergible embankments in the *haor* basin were still under water. It found that the physical condition of the embankments was still reasonably good though in some sections the slopes are too steep, that there are several severe rain cuts, rat holes and signs of soil erosion. The physical status of the drainage regulators varies. Some are still in a relatively good condition whereas the flap gates and vertical lift gates of other are apparently no longer operational. The physical status of the submergible embankments in the remaining three polders may be worse as they need major maintenance and repair every year. The mission was informed that last year a breach occurred in the embankment of one of the partial flood protection schemes and that the standing crop was severely damaged. Whether this incident can be attributed too poor quality of work, lack of maintenance, the unusually severe floods, or a combination of all three remains contentious.

58. Nevertheless, all people interviewed in the villages surrounding the embankment, regardless of their gender and socio-economic status, consistently reported that the polder schemes play a vital role in their livelihood and that they benefit greatly from them. However, people are aware that without regular rehabilitation and maintenance polders are not sustainable.

Needs Assessment Survey

59. According to the AR all R&I works to be carried within the framework of the project's Polder Rehabilitation and Management component were to be based on the findings of a *Needs Assessment Survey* conducted within the first six months of the project. This exercise was intended to identify the perceptions, needs and priorities of the beneficiaries, in particular those of small and marginal farmers. Several workshops with the participation of beneficiaries and local officials were proposed to ensure their full participation *before* undertaking the actual assessment, i.e. before the actual design and execution of the proposed works.

60. However, by 1998, when most construction works under this component had already been completed, the Polder Needs Assessment had not been carried out. Thus, within the framework of this project component, there was no meaningful beneficiary participation in planning and implementation. It should be underlined that this issue was repeatedly addressed by the supervision missions, but no action was taken to prevent civil works from proceeding until needs assessment was carried out. This may explain why people still think it is BWDB's responsibility to operate and maintain the system.

Institutional arrangements for O&M

61. A Polder Management Committee (PMC) was to be formed in each polder to ensure beneficiary participation in O&M. The AR suggests that the PMCs would be chaired by the TNO (the head of the civil administration at the thana level) and be composed of the BWDB XEN, the TAO, the UP chairmen, three representatives of irrigation groups and four representatives of farmers groups. The responsibilities of the PMCs would include: setting up a polder fee policy; the provision of funding for O&M; the appointment of local operation staff; and the organisation of maintenance works. The PMC would appoint one 'Union Manager' (UM) responsible for O&M for each Union covered by the scheme. The UM would be assisted by regulator attendants (one for each regulator) and embankment guards to be selected from the local community. The attendant would be responsible for the daily O&M of the structure as well as part of the embankment. Local embankment guards (1 for each 1.5 km of embankment) would be responsible for daily inspection of the dike to monitor river flow.

62. The supervision reports, the mid-term evaluation and the final evaluation all confirm that PMCs were not active during the life of the project and that the proposed organisational arrangements for O&M were never established.

63. In the mission's view the institutional framework for O&M proposed by the project was not conceptually viable for the following reasons:

- Though PMCs were supposed to ensure community participation, they were dominated by government officials from various departments, who did not consider O&M of BWBD's infrastructure their responsibility. Except for the Union Parishad Chairmen, who are indeed democratically elected local authorities, all other presumed members of the PMC did not formally represent the beneficiaries.
- The project did not foresee the involvement of the PMC in the identification, planning and implementation of R&I works and the BWDB was in no way in a position to become more accountable towards its clients. Accordingly, even if the PMC structure had reflected the intention to set up community-based organisations, its members would probably not have been motivated to take over the burden of O&M of infrastructures about which they had no say.
- The collection of fees from polder beneficiaries is not legally backed. Unlike irrigation schemes, polders are - *de jure* and *de facto* - multifunctional public goods whose O&M cannot be ensured through direct users fees, because: (a) it is impossible to calculate users direct benefit; and (b) it is impossible to exclude tax defaulters from the benefits of the embankment.
- Viable solutions for O&M cannot be created ad hoc at a project level. The sustainability of rural infrastructure ultimately depends on whether institutional arrangements are backed by national policies.

- The operation of regulators, particularly large ones, is socio-technically a complex issue. Thousands of people distributed in dozens of villages may be affected by the decision about opening or closing them. Conflicts between low-land farmers and high-land farmers, and between cultivators and fishers/lease holders with regard to water level preferences, are common. For a transparent and effective operation of polder infrastructure it is necessary to involve all stakeholders in the preparation of a water management plan. Experience in other water management projects in Bangladesh and research on indigenous organisational practices show that water management organisations are more likely to be successful if established at the village level. These village level organisations could be federated at a polder level.

64. The fact that the project did not succeed in setting up a viable institutional framework for sustainable O&M does not mean that people watched passively their vital infrastructure being ruined. BWDB's XEN reported that when the breach occurred in one of the polders thousands of people worked day and night to repair the embankment. Indeed, particularly in the *haor* area, people are well organised to build and maintain embankments. Recent research has shown that the *haor* basin provides a fertile ground for community participation in water resource management and there is plenty of scope to build upon local capacity.

Tree plantation on embankments and fish culture in borrow-pits

65. Plantation of trees on embankments and borrow- pit fish culture was not part of the original project design. These two activities were identified towards the end of 1999 by the project to establish some income generating activities that would compensate the beneficiaries for their polder O&M costs. Hence, these components were designed by default, when it became clear that the PMC did not provide a viable institutional arrangement. A socio-economist from Kranti Associates was hired for a period of 10 months for programming, implementing and supervising related jobs. Following his input, the PMU awarded the contract to enhance tree plantation and borrow- pit fish culture to two NGOs (PMUK and CDA).

66. To assess the viability of embankment tree plantation and borrow-pit fish culture as a strategy towards sustainable O&M of Netrakona's polder schemes, the mission interviewed BWDB officials in Netrakona, the NGO officers in charge of implementing these project activities, and a number of beneficiaries. The mission also visited the fish-culture schemes and – after having noticed that after the first 200 m there were hardly any trees left - counted all trees on the Kagsha River embankment (22 km), where over 60,000 trees were planted between July 2000 and July 2001, according to official figures.

67. The mission found that tree planting through the NGOs is neither conceptually nor operationally a viable strategy towards mobilising resources for O&M for the following reasons:

- No grassroots level organisations, aware of their entitlements and duties with regard to the revenues that may in future be generated by the trees, were set up. The whole exercise was carried out by paid labourers with the NGO acting as a contractor;
- The trees were officially planted by 5,000 wage labourers that were hired by the NGOs without any involvement of the beneficiaries, PMC or Union Parishads. If there had been any viable beneficiary organisations, these should have taken full responsibility for tree plantation to ensure a sense of ownership. In the absence of such organizations, this activity should have been carried out by the UP, who currently are the only democratically elected body in rural Bangladesh.
- As opposed to the current official figure of about 13,513 living trees, the mission counted only 2000 living trees on the Kanghsa river embankment, of which many were in a very poor condition. After the first 200 m of the embankment where indeed a number of healthy trees can be seen, the trees become scarce. There are long stretches of embankment on which not a single tree can be found. This shows that, if at all the over 60,000 trees were ever planted, not only did the care-takers (PMUK officially employed 19 women and men at a monthly salary of Tk 1,200) fail to maintain the embankment maintenance work, but also to tend the trees.
- The NGO field staff in charge of the component describes tree plantation as an IGA for their target groups rather than a strategy towards mobilising funds for O&M. The NGO did not monitor the

maintenance status of the embankment, but only the condition of the trees indicating that tree plantation is completely de-linked from O&M awareness and responsibility.
- Trees start generating revenues only after 10-15 years, but they must be carefully tended.
- Though BWDB is officially entitled to 20% of the income generated by the trees, this would not have an impact on the O&M of the Netrakona polders because it would flow to the central governments' revenues.

68. Similar concerns may be raised about the borrow-pits fish culture. The beneficiaries of this component were not aware of their duties and responsibilities with regard to O&M and merely saw it as - so far -a not very successful IGA. In fact, due to poor quality of work, the fish tanks were severely damaged by last year's floods and most fish washed away. The group members argued that they are not in a position to repair the tanks and appear to expect further external assistance to restore the ponds. The mission observed that adjacent to the project -supported fishponds, there are a number of private ones, which are in excellent condition despite receiving no external assistance.

69. There is no collaboration between the BWDB and the NGOs on these activities. Although BWDB officials are aware that tree planting and fish culture in borrow-pits has been carried out by two NGOs along the embankments of the full flood protection schemes, they do not think the NGOs perceive these activities in terms of generating funds for O&M, but only as IGA for their target groups. Their view was confirmed by the mission.

RURAL INFRASTRUCTURE

70. The Rural Infrastructure Component of the project was implemented by the Local Government Engineering Department (LGED). There was a separate project director, deputed from the LGED, responsible for this component. Adequate staff was assigned to assist the project director who was stationed in Dhaka. The principal tasks of the Project Director were:

- To prepare annual work plan with the assistance from the XEN and send it to the Inter-Ministerial Project Steering Committee (IMPSC) for approval.
- To supervise and co-ordinate the works of the officers and staff engaged in the project.
- To monitor and supervise the implementation of the project works in the field.
- To provide technical and other assistance needed by the XEN in the implementation of the project.
- To be responsible for overall financial management of the project.

71. It was envisaged that the implementation of the rural infrastructure component of the project would generate about 0.3 million person days of employment for the casual hands. Following completion of the component, 0.2 million person- days for the operation and maintenance work would be required annually by the local authorities.

72. The activities under the rural infrastructure component were many: construction and rehabilitation of rural roads, construction of culverts, markets, Union Parishad office buildings, landing stages, bridges, embankments, regulators, submersible roads, training centres, community centres and residential buildings.

73. Allocation for rural infrastructure development was in fact complementing the national budgetary allocation to the LGED. The total targets set for the rural infrastructure development component were completed during the tenure of the project.

74. The mission noted that the financial results of the component had been high (95.4%). The allocations for different activities had been fully utilized, except for training (76%) and for operation & maintenance (31%).

75. **Rural Roads:** The project had a target of rehabilitation of 110 km of rural roads in all 10 thanas. The selection of the roads for rehabilitation was done by the LGED, based on the criteria prepared by

them. But priority was given to poor remote areas where the majority of the project target group could benefit.

76. For items such as land acquisition, rural road improvement, drainage and embankment construction, turfing and earth work maintenance, only village labour was used. The payment for such man- power was in food aid from World Food Programme. The total cost of food for the above had been 370.29 Lakhs Taka.

77. According to the beneficiaries, movement of motorized traffic has increased along the improved roads. During the rainy season these roads used to go under water causing great inconvenience to the people. Bicycles and rickshaws traffic has also increased providing more employment opportunities. Small traders set up their businesses along the road-side.

78. **Rural Markets:** Construction of rural market places started in 1994. This programme was completed in 2000. Twenty-five market places; additional buildings at market centres in each thana and in village bazaars, were built. This work was carried out satisfactorily with 100% of the budgetary allocations utilized.

79. **Landing Stages:** Construction of 25 steel pontoon landing stages was completed at a cost of 84.50 Lakh Taka. These stages were built in rural growth centres to facilitate the easy access to the newly constructed market places. Landing stages serve as a "waiting hall" for people using the ferries. As many as 30 people can shelter under the landing stage roofs.

CREDIT

80. The pilot credit delivery component comprised of two separate loan portfolios:

- The USD 400,000 RLF to selected NGOs to lend to the landless category of beneficiaries for IGA
- An agricultural credit programme implemented by AB to small and marginal farmers indirectly through NGOs and directly through the bank.

Revolving Loan Fund (RLF)

81. The RLF essentially provided that the PMU would make available zero cost funds to selected NGOs for on lending to largely women's self-help groups (SHGs) for IGA. The PMU created a revolving credit fund of Tk.23.5 million in June 1996. Funds were made available to six NGOs for on-lending to targeted landless households to finance on- and off-farm IGA. By 1998, 500 groups with over 10,000 members had availed of credit through this component. The 6 NGOs had lent Tk.59 million in 20,676 loans. Subsequently, as three NGOs involved with the agricultural component ran into difficulties with AB procedures, they were additionally contracted to access RLF funds. By project completion (Dec 2000), the nine NGOs had provided RLF funds to 790 groups with 15,343 members, in all 45,771 loans, amounting to Tk138.4 million. Overdues were reported to be in the region of 2% of outstandings (Tk.32.2 million). Overall, the RLF achieved its target of financing 15,000 beneficiaries. The success of the RLF is in no small measure due to the fact that micro credit in Bangladesh is now a well-known financial instrument, its methodology has been tested and refined and its prevalence and acceptability are fairly widespread.

82. Lending Mechanisms: In the absence of a standard baseline survey, all the NGOs reported undertaking their own village surveys with varying degrees of sophistication and levels of grass roots involvement. The total number of permanent residents in the village was divided into five classes:

- The destitute/ extreme poor/ hard core poor
- The landless (owning less than 0.50 acre of land)
- Marginal farmers (owning between 0.5 – 1.5 acres land)
- Small farmers (1.5 acres – 3 acres)
- Middle and rich farmers (3 acres and above)

83. All the NGOs excluded the destitute from the target group as non-bankable. While some of these households probably need an outright dole, the decision also cut out the hard core poor from the ambit of the programme. For purposes of the RLF only the landless selected. NGOs reportedly undertook a detailed village socio-economic survey, or 'jarib' to ascertain the private and common entitlements accessed by the applicant in fulfilment of the household's consumption basket. While land size is still a major determinant for assessing marginality, NGOs also attempted through the jarib (literally, the measuring chain) to ascertain monthly income from all available sources, so as to exclude those marginal families with a household income in excess of Tk 2,500.

84. After the completion of the survey, groups were formed of men/women with comparable incomes and some bonds of social affinity. The second step was a formal application on behalf of the potential beneficiary to seek membership of the SHG. The SHG or samiti was required to meet on a formal basis every week and prove its intent and ability to save and manage credit. Most NGOs demanded a three-month learning and forming period during which the groups were established, regular saving of Tk.5, 10 or 20 per week collected and inter personal group dynamics established.

85. This period also saw the formal election of a chairperson, group secretary and group treasurer. In the case of completely illiterate groups, the NGO's field coordinator performed the formal book keeping functions, but generally members themselves handled paperwork and most SHGs maintained a fairly detailed meeting register documenting group decisions.

86. After the three-month savings probation SHG members formally requested a loan for IGA, and the samiti passed a resolution approving/disallowing the same. Most NGOs covered the entire group of SHG members in instalments of three months each, i.e. the first batch of five SHG members would be sanctioned the loan, the second, third or fourth batch sanctions being predicated on steady repayment by the earlier borrowers. Repayment was pressurized from below by the strong pressure of other SHG members, who waited their turn to receive a loan. The samiti resolution, along with a formal forwarding application, was given to the area manager who undertook a loan perusal exercise. Loans were disbursed usually within a week of receipt of application and repayments commenced after a two-week grace period. Repayments were weekly with non-variance of amounts payable.

87. While the rudimentary requirements of group formation, management and a savings' discipline were instilled among the SHGs by the partner NGOs, it is questionable if this fulfilled the community's capacity building needs in a wider sense. The NGOs obviously operated within a time horizon that brought the group to the borrowing threshold in the minimum possible time. In the process, issues such as the choice of IGA and the resultant need for training, skill upgrading and linkage with other sources of credit or skill inputs were ignored. It was largely the ingenuity and native entrepreneurial talent of the SHG members that made a success of their chosen economic activity. Thus little value addition was achieved, most IGA being an increase in the scale of the borrower's existing activity.

88. Interest rates were left for the on-lending institutions to determine. This allowed a considerable leeway to participating NGOs to peg interest rates depending on their perception of what interest rates could be obtained in the NGO driven local credit markets. This spread is what NGOs ostensibly used to cover their cost of administering the loan portfolio. In actual fact this methodology is highly profitable in large-scale operations. The flat rate was the norm in micro credit operations, while the range varied from 15% charged by the PMUK and others to 12.5% charged by the SPS and a low of 10% charged by SUS.

89. In addition to the criteria of landlessness, an applicant for an IGA loan had to fulfil several other conditions. He/she could not have any loans outstanding towards other NGOs/Banks, be a bona fide resident of the village in the age group of 18-50 years, attend the weekly meetings and save a specified amount every week. Only one loan per family was allowed. Generally a no-objection certificate was obtained formally or informally from the other NGOs functioning in the area. The exit procedure from the SHG was also fairly standardized, with a simple application being presented and the member being allowed to withdraw if he/she had no out-standings.

90. Institutional Capacity and Outreach: The institutional capacity of the NGO in delivering the credit package varied according to the size and extent of the NGO's outreach. The largest NGO in the project was the SUS with 376 paid staffers, 286 full- time and 90 part time. In contrast, smaller NGOs like the Dushtha Shastya Kendra (DSK) and the Village Development Society (VDS) only had a modest structure of full time staffers of around six.

91. Financial products and services: The sole financial product in the RLF component was the provision of micro credit to landless households who formed part of SHGs for a variety of IGA. The loans were easily accessed by the SHG members, average time taken between group decision and loan sanction being one week. The large number of repeat loans, often running into 5 loans, meant in fact that the per capita investment in some cases exceeded the conventional definition of micro credit – it became meso credit, or small credit, totalling nearly Tk.25,000 in graduated installments.

92. The other major financial service provided to the rural poor was the safe provisioning of the savings of the SHG members. It is common in the less developed world for the rural poor to pay to keep their savings in safe deposit, often with a moneylender, trader or large farmer. In the cases studied in Netrakona, however, this savings deposit service provided by the NGOs has taken on a rigid cast. The weekly savings of the SHG members, ranging from Tk.5 to 20, were deposited in the bank account of the NGO, with the individual member being given a passbook by the NGO that recorded the amount. The individual SHG members received the bank rate of interest on their accumulated savings when they totally withdrew from the scheme. However, in the meantime, the NGO had obviously recycled this money at a 15% flat rate several times over. Thus, the NGOs were leveraging SHG member savings as an increment to their lending corpus and used it as an additional source of income. These savings were in effect used as a form of collateral, in that the NGO held on to the rising collection of SHG savings as a hedge against possible default by some borrowers of the SHG.

93. Savings were not rotated within the group and no group member was in a position to exercise agency or autonomy with regard to individual or group savings. In effect, the savings belonged to the members, but were held in trust not by the group, but by the NGO. Members were rarely in a position to use their individual savings to meet untoward exigencies and no SHG member had access to group savings in the event of illness or emergency. Savings were used by the NGO to increase its cash reserves to multiply the volume of its micro credit transactions resulting in a deepening of its financial base.

94. Insurance: No insurance scheme was discernible in the field. The PMUK charged 1% on all loans sanctioned as a life insurance premium, deposited in a life insurance fund. The premium was non-refundable, the loan amount being written off in case of a member's death. Few cases of recourse to insurance were reported during the mission and this facility appears to have been largely nominal.

Provision of agricultural credit by Agrani Bank

95. The agricultural credit component formed the core strategy of the pilot credit scheme. This credit package aimed to support the major component of the livelihood portfolio, i.e. agricultural activity. The strategy was to marry NGO grass roots capacity, local contact and the group based lending approach with the methodology of the formal banking sector in Bangladesh, represented by AB.

96. There were two methods used by AB to push this credit package to small and marginal farmers:

- Direct lending to farmers who had been selected, trained and formed into groups by the partner NGOs.
- Indirect lending through contracted NGOs to small and marginal farmers in the NGOs' area of operation.

97. The criteria for both direct and indirect lending were that only bona fide landowners were eligible for agricultural loans. Only small (1-3 acre) and marginal (0.5-1 acre) category farmers were eligible for the loan package.

98. Successive supervision reports and the project completion report have unequivocally categorized the agricultural credit component of the credit package as only a limited success. This view was reiterated by a cross-section of stakeholders during the visit of the evaluation mission. A deeper interaction with AB, partner NGOs and prospective beneficiaries brought some of the reasons for this state of affairs to the fore. While the agricultural credit component was supposed to reach 42,000 agriculturists, it ultimately ended up with only 6,000 accounts achieved through NGO on-lending and another 7,000 through direct lending totalling 13,000 loans.

99. NGOs involved in the agricultural credit component listed four main reasons for the dismal performance of this component:

- The qualification norms prescribed by AB were far too stringent to enable interested NGOs to qualify for funds for on-lending. This was because the project design allowed AB to retain its own lending norms and procedures, which, given the public nature of the bank, led to the most conservative qualifications being prescribed.
- There was considerable confusion over the terms of the loan, collateral etc. Impractical requirements like a resolution of the general body of the NGO and similar terms made the paperwork tedious and often impossible for NGOs to cope with.
- AB undertook arbitrary modifications in the SLA from time to time, standardizing the loan amount with no sensitivity to farmers' individuated requirements or amending one or several of the conditions. This led to an atmosphere of complete uncertainty on the part of the NGOs and made them wary of applying.
- The mismatch between the repayment schedule and farmer income cycles was one of the major design flaws of the product that ultimately ensured its collapse. While some NGOs insisted on weekly repayments, farmers could only manage a seasonal repayment schedule based on crop harvests. This insensitivity towards timing led to massive overdues on the part of the NGOs and resulted in AB becoming further rigid in its approach.

100. While the NGO on-lending operation languished, AB, under pressure from critical supervision reports, resorted to direct lending in 1999. This was hardly any better as AB had no earmarked field staff for marketing this product, disbursals and recoveries, no incentive structure and undertook no capacity building of key personnel to anchor this component. This became, in effect, one more burdensome lending scheme that AB staffers had to implement. The result was more than 70% overdues and a stalled operation. What is more disturbing is the feedback from beneficiaries who reported high illegal transaction costs and rent seeking behaviour of bank staff and delays in disbursements. AB did not attempt to liaise with agricultural extension staff or provide a mix of cash and inputs to attract farmers to its product. The overall result was a failed model of agricultural credit that can hardly be the basis of replication.

101. The total disbursements of AB (both through NGOs and through direct lending) were Tk 6,53,92,000 (as on 31.8.02) of which the total amount outstanding was Tk 2,40,00,000. The project SLA stipulated that USD 480,000 would be kept in an interest bearing foreign exchange account of the AB as a risk fund to cover the agricultural credit operations. In addition, each beneficiary was to contribute 10% towards the total credit package. Given the level of repayments, AB had no financial stake in increasing the agricultural credit portfolio, since the risk fund was not enough to cover such a high level of outstandings. It is unfortunate that no strategy was suggested by supervision missions or internally developed by AB to identify the reasons for the limited disbursals and poor recoveries in order to improve the situation.

102. Initial delays in the refinements of the SLA and the fact that no budgetary provision for expenses to be incurred by NGOs on group formation for the agricultural credit component, should have been ironed out in a workshop or meeting with AB, GOB, NGO and IFAD representatives present rather than through correspondence. Given the rules of business operating in government departments, correspondence on this issue necessitate intra-government cross referencing and clarification to obtain departmental approval on different items and budgetary heads. This delayed the entire procedure by years and was one of the reasons that effective agricultural credit operations only commenced into the fifth year of the project.

103. NGOs disbursing agricultural credit were not recruited in tandem with the start-up of the DAE training. Formal NGO recruitment was delayed until three and a half years into the start of the project. While many NGOs started group formation work, delays in loan disbursals led to many groups breaking away. The lack of clarity in procedures for disbursals led to further delays.

104. Most of the NGOs contracted were unfamiliar with agricultural credit operations, having experience only with micro credit and its weekly repayment cycle. AB also required that the entire principal and interest be repaid prior to sanction of a further loan. Most farmers familiar with the micro credit system of rolling over the first loan into the second as a bridge during periods of cash stringency typically succumbed to the crisis of uncertainty and ceased repayments fearing non-sanction of a second loan. As a result, defaults increased and repayments were reduced to a trickle. This must, however, also be seen in a situation where the region has experienced flash floods in 1998 and 2000 as well as a drought in 2001-02, further incapacitating repayments.

105. Lending mechanism and procedures: As in all large bureaucratic systems, the administrative culture in AB's mode of functioning was to screen out applicants rather than include them into the lending nexus. For example, farmers with a marginal or small holding, but who owned only a single ox, were not considered bona fide agriculturists eligible for loans. Credit officers overlooked the fact that considerable intra village sharing of animals and assets is effected by the poor, and that during plough operations the second animal can be borrowed to yoke to the plough share.

106. AB functioned with a traditional banking culture with no outreach mechanism or effective supervisory mechanism. The bank simply did not possess the capacity to seek out potential borrowers and coordinate the mix of credit and technical services that constitute a viable credit package. In fact, one significant lacuna in the NIAPWMP training-credit linkage was that group formation and training was not undertaken in tandem. Groups were formed and many members broke away in the absence of timely financing. When the borrowers were regrouped, the Block Supervisors often undertook the training as a stand alone exercise. Joint DAE-NGO-AB training was rarely coordinated. In any case, when AB finally commenced direct lending in 1999, the emphasis was on speedy disbursal to meet targets without much emphasis on training. But the core reason for AB's foot dragging and uncoordinated approach seems to be the absence of any financial or economic incentives for the bank to step up its agricultural credit operations. Quite simply, it was not an attractive enough business proposition for them.

107. AB loan procedures were formidably daunting. NGOs were required to submit 28 different certificates with the application. This included a personal guarantee of the Executive Director of the NGO and a declaration of his/her assets and liabilities. Some NGOs found this simply offensive. Other requirements such as a resolution of the general body of the NGO necessitated huge administrative arrangements.

108. NGOs complained of costly and time consuming mobilisation of borrower groups simply to complete the formalities associated with the loaning procedures. In addition, semi-literate clients were issued passbooks and chequebooks. Applicants were expected to append over 40 signatures in mostly cramped offices. Invariably, NGOs completed the formalities on behalf of individual borrowers. Women borrowers were never encouraged as part of a strategy and would have been daunted by the paperwork and procedures anyway. Moreover, in the case of the few women borrowers, detailed scrutiny of the husbands'/fathers' agricultural and credit status added to the already long list of formalities.

109. Interest rates: While AB charged 11.5% p.a. on its on-lent funds to the NGOs, the latter were allowed to lend at 15% p.a. The latest agreement was that the NGOs would be allowed a 5% spread to cover their administrative costs. The real rate of interest on funds lent at a flat rate of 15 % is 28 % when repayments are made on a weekly basis. One NGO allowed semi-annual recovery of agricultural credit and charged a rate of 20% p.a., repayable at 10% every six months. These rates contrasted with the prevailing kerb lending rate ranging between 100% and 300% p.a. While exorbitant, it must also

be acknowledged that moneylenders provide for consumption needs and distress requirements, a service that either AB or the NGOs matched.

110. Institutional capacity and outreach: AB had a total of 8 branches in the 10 thanas in Netrakona district. Prima facie this points to huge physical incapacity. While the opening of new branches may have entailed establishment costs that AB would have been unwilling to bear, the project should have anticipated this absolute staff shortage and factored in the requirement for additional manpower. Just as a separate PMU was temporarily created, so also AB should have earmarked a special team in each branch clearly mandated to pursue disbursals under this component, seconded officers from other branches for camp offices and even ensured the deputing of mobile banking facilities in underserved areas. Additional staff were not hired for the agricultural credit component, nor was any transferred from other branches. The existing staff suddenly found their workload multiplying and struggled to cope. AB did not invest in any special capacity building or training programmes for the staff in the branches in handling their new responsibilities. Nor did it create any incentive structure for speedy disposal of applications, disbursals and recoveries. Examining all this in retrospect, it is hardly surprising that the component met with such limited success.

COMMUNITY PARTICIPATION

111. Participation in the project was a key cross-cutting issue and strategy, but for each of the implementing agencies, participation assumed a different role and meaning. In general, however it may be said that across the project, participation referred to: the formation of groups; participation in planning; participatory training and extension approaches; participation in O&M**;** participatory M&E; land donations. Below the project's achievements and constraints in promoting participation through the above approaches and strategies are assessed.

112. For the purposes of this evaluation the above roles and meanings will be grouped under three headings:

Participation meaning the formation of groups as a means of empowering the members

113. Most rural development projects include among their activities the formation of various types of groups and committees – and indeed it is now the DAE's national policy to deliver extension services through groups. Thus at Netrakona thousands of groups and committees were expected to be formed within the framework of the agricultural, rural infrastructure, water management and credit component, by DAE, LGED, BWDB and NGOs.

114. This mission found that most grassroots-level organisations that were expected to be formed by the project were no longer active and did not even exist on paper. The current absence of organisations with which government agencies and NGOs were supposed to interact on a sustained basis, and who were assumed to take over a major role in O&M, in the case of rural infrastructure and water management schemes, prove that the formation of groups is not necessarily linked to any participatory development process.

115. Within the framework of the NGOs micro-credit programme, groups of women and men still exist. However, in most cases their purpose is to deliver and recollect individual loans. Thus, if by "participation" we mean some degree of sustainable community empowerment, taking part in decision making processes, and strengthening a community's social capital, most NGO groups formed under the project cannot be defined as participatory organisations. Little long-term empowerment can be detected in the field.

Participation as an instrument to improve the 'project' performance' at different stages of the cycle

116. Project planning. The AR expresses a clear commitment to involving the project beneficiaries in detailed planning and implementation. Community participation would be ensured by means of

Participatory Needs Assessments (PNA) to be carried out prior to finalising the detailed interventions and work plans of the DAE and the BWDB.

117. In BWDB's Polder R&M component the PNA was planned before beginning the R&I works to identify the perceptions, needs and priorities of the beneficiaries, in particular those of small and marginal farmers. The AR suggests several workshops with the participation of beneficiaries and local officials to ensure their full participation before undertaking the actual assessment. However, the PNA, though mentioned in the Loan Agreement, was omitted in the PP and accordingly could not be carried out at the beginning of the project. In spite of this, civil works under this project component were allowed to start following BWDB's top-down annual workplans.

118. A conceptually and methodologically rather weak and non-participatory needs assessment was eventually carried out in 1998, when most works under the Polder R&M component were already completed. It should be underlined that the absence of a needs assessment was a well-known issue, repeatedly addressed by the Supervision Missions.

119. A PNA was also to be carried out under the DAE Agricultural Development Component to assess the project's target groups' needs and priorities. Although in this case it was finalised already in 1996, it cannot be called a 'Participatory Needs Assessment' either. Further, there is no evidence from the activities carried out later under the DAE that the PNA has in any way influenced their focus and approach.

120. Within the framework LGED's Rural Infrastructure component, the project apparently did not consider it necessary to promote beneficiary participation in decision making. It was accepted that LGED had already conducted a survey listing all potential sites for such schemes. With regard to small embankment and drainage works, LGED was responsible for the selection of schemes in close consultation with local communities. The schemes would be selected according to the predominance of small and marginal farmers, who would agree to take over full responsibility for O&M and would provide their land at no cost. Whether such close consultation ever occurred and whether indeed the selection was based on the predominance of small and marginal farmers who voluntarily agreed to donate their land has never been monitored or evaluated. However, according to numerous people consulted during this mission such a consultation process never took take place. Even LGED staff informally confirmed that the selection of works was done following LGED's standard procedures, which do not foresee any systematic community consultation. In many cases this resulted in a wrong site selection of drainage structures or in inadequate detailed designs, hence to the provision of dysfunctional infrastructure.

121. Whereas the project's intention to enhance people's participation in planning was commendable, the project missed the opportunity to allow community representatives to participate in project planning and implementation by involving them in the *District Project Coordination Committee*, which was set up by the PMU to bring together the various stakeholders involved in project implementation. Such committees are potentially important institutions to ensure transparency and local accountability and to involve locally elected bodies (Union Parishad chairmen and members) in planning and implementation. To this aim, however, project committees should also be organised at the Thana level and include all Union Parishad chairmen and possibly all female UP members.

122. Agricultural training and extension: While the extension component was based on participatory approaches in which the community would be involved as partners, feel a sense of ownership for the project and carry forward project initiatives, implementation was often far from participatory, and resembled more traditional – and less effective – approaches to extension.

123. This top-down approach was reflected in the Needs Assessment process (see above) which acted as an imperfect guide to the real needs of farmers.

124. The implementation of the participatory farm-based research component was singularly inadequate. The component was much delayed and no determined attempt was made to initiate

research which reflected the real needs of farmers or to involve them in the process other than as the providers of labour and land for the trials.

125. Group mobilization was not budgeted for in the PP, the omission was not corrected until 1998/99, consequently delaying the involvement of the NGOs until then.

126. Farmer training was hindered by lack of an operational budget for the DAE training centres and follow-up visits in the PP, hence limiting the impact of training.

127. The project clearly played an impressive part in encouraging the diversification of cropping and raising farm incomes – a development which should prove sustainable. A greater degree of participation would have ensured that the needs of target groups had more influence on extension inputs. A greater emphasis on participation and dialogue between implementing agencies and farmer groups would have given more impetus to group mobilization and strengthened the groups as relevant institutions, and hence the sustainability of project initiatives.

128. Project O&M. The sustainability of rural infrastructure development projects largely depends on setting in place appropriate institutional mechanisms for O&M. Given governments' financial limitations, over the last 15 years, it has become a common practice to transfer the burden of O&M to the 'beneficiaries' in the name of participation. So far, however, in Bangladesh there is little evidence of success.

129. Nevertheless, the project gives considerable importance to community participation in O&M. Under LGED's rural infrastructure component, beneficiaries are expected to agree to take full responsibility for subsequent O&M before the execution of any civil work. LGED was expected to provide for the mobilisation and training of *Scheme Management Committees* (SMC) and *Embankment and Drainage Management Committees* (EDMCs). The project would finance, besides the civil works, training courses for SMC managers and their equipment. The mission found no evidence that EDMCs still exist.

130. The O&M approach suggested for BWDB's polders is somewhat different. A *Polder Management Committee* (PMC) was to be set up in each of the five schemes. Its members would be trained on O&M within the framework of 'participatory workshops'. Besides rehabilitation and improvement works and BWDB's administration and supervision costs, the project would finance support to PMCs through the organisation of orientation workshops, training, tool kits for regulators and bicycles for polder managers. However, the project did not succeed in setting up a viable institutional framework for O&M.

131. The sustainability of the water management and other rural infrastructure financed under the project was not ensured for the following reasons:

- Beneficiaries are reluctant to assume O&M responsibilities if they had no say in project planning and implementation.
- The organisational framework of O&M groups was not viable.
- Line agencies did not pay much attention to establishing O&M organisations.
- It is generally difficult to mobilise people for O&M of public goods, particularly if there are no effective mechanisms to sanctioning 'free riders' or to exclude them from using the good.
- Union Parishads, who are the only democratically elected body in rural Bangladesh and are formally entitled to collect revenues for the maintenance of rural infrastructure, were systematically excluded from project planning and implementation. Accordingly, they have no sense of ownership for infrastructure build under the project.
- Line agencies, such as LGED and BWDB, have no incentives to improve O&M as their power, prestige and wealth depends on acquiring new projects, rather than ensuring the maintaining old ones.
- Charging O&M fees for FCD schemes is not backed by any national policy.

132. As a consequence, there are hardly any funds and no viable institutional mechanisms for O&M. The physical condition of most IFAD- financed infrastructure is already deteriorating.

133. Project M&E. Given the innovative nature of the project and the need constantly to learn from and improve upon the implementation process, the project was expected to design a sound monitoring and evaluation system but this was not achieved.

134. The overall framework of the monitoring and evaluation system would provide a dynamic feedback to the planning and implementation process. This would give an early identification of implementation constraints and bottlenecks enabling timely and effective response.

135. This participatory monitoring system would have enhanced the capacity of the beneficiaries to assess for themselves the performance of different project interventions and explored local solutions to any inadequacies. The comprehensive management information system would have not only enhanced the capacity of the divisional directorates in effective monitoring of some of the poverty alleviation initiatives of the project, but have provided a feedback to the national directorates aimed at realizing the national goals of poverty reduction, community empowerment and economic advancement.

136. However, the implementing agencies almost certainly lacked the capacity at the inception of the project to design this sort of participatory monitoring system. It was therefore unrealistic of the AR to plan M&E on this basis - which amounts to a design fault.

Participation through land donations

137. The project considers beneficiaries as one of its official partners expected to contribute to the project with voluntary donation of land worth 1.27 million USD, equivalent to 9.3 % of the total project cost. 'Beneficiaries' were expected to donate their land without compensation only under LGED's rural infrastructure component. In fact, under BWDB's Polder R&M component, land was acquired by BWDB following the administrative and legal procedures of the GOB and all title holders were officially compensated.

138. No data could be found relating to the number of people who voluntarily donated their land or the estimated value of such contributions. The mid-term evaluation mentions that LGED faced some problems with land acquisition indicating that people did not necessarily voluntarily surrender their land. However, the report fails to give specific details.

139. The mission considers 'voluntary' donations of land as an unacceptable form of 'beneficiary participation' for the following reasons:

- The burden of such participation is not evenly distributed among all beneficiaries. It only falls on a rather marginal number of people who have the misfortune of owning land where some construction works are planned;
- Land owners are generally forced to surrender their land. Many people become landless or even homeless through this process. Often land acquisition involves the eviction of poor people or squatters who desperately need resettlement assistance to restore their livelihood;
- Extensive research on the subject shows that poor people are forced to make disproportional contributions of land as they are socially too weak to protect their interests. This would also explain why many rural roads in Bangladesh, are unnecessarily twisted.

140. In World Bank funded projects, for example, compensation for land losses and other assets is mandatory and all people who lose their home, access to resources and employment are entitled to compensation and to assistance in the restoration of their livelihood.