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PROJECT PERFORMANCE ASSESSMENT REPORT

BANGLADESH

FOREST RESOURCES MANAGEMENT PROJECT
(CREDIT 23970-BD)

SILK DEVELOPMENT PILOT PROJECT
(CREDIT 30040-BD)

AGRICULTURAL SERVICES INNOVATION & REFORM PROJECT
(CREDIT 32840-BD)

June 7, 2006

Sector, Thematic and Global Evaluation Division
Independent Evaluation Group

Currency Equivalents (annual averages)

Currency Unit = Bangladesh Taka (Tk)

1987	US$1.00	Tk.30.8
1992	US$1.00	Tk.39.0
1997	US$1.00	Tk.43.9
2002	US$1.00	Tk.57.9
2005	US$1.00	Tk.65.9

Abbreviations and Acronyms

ASIRP	Agricultural Services Innovation and Reform Project
ASSP	Agricultural Support Services Project
BSB	Bangladesh Sericulture Board
BIDS	Bangladesh Institute of Development Studies
BRAC	Bangladesh Rural Advancement Committee (an NGO)
BSRTI	Bangladesh Sericulture Research and Training Institute
CAS	Country Assistance Strategy
CDD	Community driven development
DAE	Department of Agricultural Extension
DRC	Domestic Resource Coefficient
FAO	Food and Agriculture Organization
FD	Forestry Department
FRMP	Forest Resources Management Project
HORTEX	Horticulture Export Development Foundation
ICR	Implementation Completion Report
IEG	Independent Evaluation Group
IFESCU	Institute of Forestry and Environmental Science
LIL	Learning and Innovation Loan
PAD	Project Appraisal Document
PPAR	Project Performance Assessment Report
NAEP	New Agricultural Extension Policy
PRSP	Poverty Reduction Strategy Paper
SDPP	Silk Development Pilot Project
SF	Silk Foundation
TSMU	Textile Strategic Management Unit

Fiscal Year

Government: January 1 – December 31

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Director, Independent Evaluation Group	:	Mr. Ajay Chhibber
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IEG Mission: Enhancing development effectiveness through excellence and independence in evaluation.

About this Report

The Independent Evaluation Group assesses the programs and activities of the World Bank for two purposes: first, to ensure the integrity of the Bank's self-evaluation process and to verify that the Bank's work is producing the expected results, and second, to help develop improved directions, policies, and procedures through the dissemination of lessons drawn from experience. As part of this work, IEG annually assesses about 25 percent of the Bank's lending operations. In selecting operations for assessment, preference is given to those that are innovative, large, or complex; those that are relevant to upcoming studies or country evaluations; those for which Executive Directors or Bank management have requested assessments; and those that are likely to generate important lessons. The projects, topics, and analytical approaches selected for assessment support larger evaluation studies.

A Project Performance Assessment Report (PPAR) is based on a review of the Implementation Completion Report (a self-evaluation by the responsible Bank department) and fieldwork conducted by IEG. To prepare PPARs, IEG staff examine project files and other documents, interview operational staff, and in most cases visit the borrowing country for onsite discussions with project staff and beneficiaries. The PPAR thereby seeks to validate and augment the information provided in the ICR, as well as examine issues of special interest to broader IEG studies.

Each PPAR is subject to a peer review process and IEG management approval. Once cleared internally, the PPAR is reviewed by the responsible Bank department and amended as necessary. The completed PPAR is then sent to the borrower for review; the borrowers' comments are attached to the document that is sent to the Bank's Board of Executive Directors. After an assessment report has been sent to the Board, it is disclosed to the public.

About the IEG Rating System

The time-tested evaluation methods used by IEG are suited to the broad range of the World Bank's work. The methods offer both rigor and a necessary level of flexibility to adapt to lending instrument, project design, or sectoral approach. IEG evaluators all apply the same basic method to arrive at their project ratings. Following is the definition and rating scale used for each evaluation criterion (more information is available on the IEG website: http://worldbank.org/oed/eta-mainpage.html).

Relevance of Objectives: The extent to which the project's objectives are consistent with the country's current development priorities and with current Bank country and sectoral assistance strategies and corporate goals (expressed in Poverty Reduction Strategy Papers, Country Assistance Strategies, Sector Strategy Papers, Operational Policies). *Possible ratings:* High, Substantial, Modest, Negligible.

Efficacy: The extent to which the project's objectives were achieved, or expected to be achieved, taking into account their relative importance. *Possible ratings:* High, Substantial, Modest, Negligible.

Efficiency: The extent to which the project achieved, or is expected to achieve, a return higher than the opportunity cost of capital and benefits at least cost compared to alternatives. *Possible ratings:* High, Substantial, Modest, Negligible. This rating is not generally applied to adjustment operations.

Sustainability: The resilience to risk of net benefits flows over time. *Possible ratings:* Highly Likely, Likely, Unlikely, Highly Unlikely, Not Evaluable.

Institutional Development Impact: The extent to which a project improves the ability of a country or region to make more efficient, equitable and sustainable use of its human, financial, and natural resources through: (a) better definition, stability, transparency, enforceability, and predictability of institutional arrangements and/or (b) better alignment of the mission and capacity of an organization with its mandate, which derives from these institutional arrangements. Institutional Development Impact includes both intended and unintended effects of a project. *Possible ratings:* High, Substantial, Modest, Negligible.

Outcome: The extent to which the project's major relevant objectives were achieved, or are expected to be achieved, efficiently. *Possible ratings:* Highly Satisfactory, Satisfactory, Moderately Satisfactory, Moderately Unsatisfactory, Unsatisfactory, Highly Unsatisfactory.

Bank Performance: The extent to which services provided by the Bank ensured quality at entry and supported implementation through appropriate supervision (including ensuring adequate transition arrangements for regular operation of the project). *Possible ratings:* Highly Satisfactory, Satisfactory, Unsatisfactory, Highly Unsatisfactory.

Borrower Performance: The extent to which the borrower assumed ownership and responsibility to ensure quality of preparation and implementation, and complied with covenants and agreements, towards the achievement of development objectives and sustainability. Possible ratings: Highly Satisfactory, Satisfactory, Unsatisfactory, Highly Unsatisfactory.

Contents

This report was prepared by Keith Oblitas (consultant) who assessed the projects in October 2005. Chris Gerrard was the task manager and Rose Gachina provided administrative support.

Principal Ratings

FOREST RESOURCES MANAGEMENT PROJECT (CREDIT 23970-BD)

	*ICR**	*ICR Review**	*PPAR*
Outcome	Satisfactory	Moderately Satisfactory	Satisfactory
Sustainability	Likely	Non-evaluable	Likely
Institutional Development Impact	Modest	Modest	Substantial
Bank Performance	Satisfactory	Satisfactory	Satisfactory
Borrower Performance	Satisfactory	Satisfactory	Satisfactory

SILK DEVELOPMENT PILOT PROJECT (CREDIT 30040-BD)

	*ICR**	*ICR Review**	*PPAR*
Outcome	Satisfactory	Satisfactory	Moderately Satisfactory
Sustainability	Likely	Unlikely	Likely
Institutional Development Impact	Modest	Modest	Substantial
Bank Performance	Satisfactory	Satisfactory	Satisfactory
Borrower Performance	Satisfactory	Satisfactory	Satisfactory

AGRICULTURAL SERVICES INNOVATION AND REFORM PROJECT (CREDIT 32840-BD)

	*ICR**	*ICR Review**	*PPAR*
Outcome	Satisfactory	Unsatisfactory	Moderately Satisfactory
Sustainability	Unlikely	Non-evaluable	Unlikely
Institutional Development Impact	Modest	Modest	Substantial
Bank Performance	Unsatisfactory	Unsatisfactory	Satisfactory
Borrower Performance	Satisfactory	Satisfactory	Satisfactory

* The Implementation Completion Report (ICR) is a self-evaluation by the responsible operational division of the Bank. The ICR Review is an intermediate Independent Evaluation Group (IEG) product that seeks to independently verify the findings of the ICR.

Key Staff Responsible

FORESTRY RESOURCES MANAGEMENT PROJECT (CREDIT 23970)

Project	*Task Manager/Leader*	*Division Chief/ Sector Director*	*Country Director*
Appraisal	Walter Schwermer	Tae-Hee Yoon	Christopher Willoughby
Completion	Tajul Islam	Constance Bernard	Frederick Temple

SILK DEVELOPMENT PILOT PROJECT (CREDIT 30040)

Project	*Task Manager/Leader*	*Division Chief/ Sector Director*	*Country Director*
Appraisal	Wahida Huq	Ridwan Ali	P. Landel-Mills
Completion	Wahida Huq	Constance Bernard	Christine Wallich

AGRICULTURAL SERVICES INNOVATION AND REFORM PROJECT (CREDIT 32840)

Project	*Task Manager/Leader*	*Division Chief/ Sector Director*	*Country Director*
Appraisal	H. Gassner/T. Islam	Ridwan Ali	Frederick Temple
Completion	Wahida Huq	G. Pathmanathan	Christine Wallich

Preface

This is the Project Performance Assessment Report (PPAR) of three projects in the Peoples Republic of Bangladesh: the Forest Resources Management Project, the Silk Development Pilot Project and the Agricultural Services and Innovation Reform Project.

The Forest Resources Management Project was approved in June 1992 for an IDA Credit of US$ 49.6 million (CR 23970). At project closure, 98 percent of the Credit had been disbursed. The project was closed in December 2001, one year behind schedule.

The Silk Development Pilot Project was approved in November 1997 for an IDA Credit of US$ 11.4 million (CR 30040). Due to slow progress and scaling down of some components, there were two partial cancellations of the Credit amounting to SDR 2.8 million. At project closure, 83 percent of the reduced Credit had been disbursed. The project was closed in June 2003, six months behind schedule.

The Agricultural Services Innovation and Reform Project was approved in September 1999 for an IDA Credit of US$ 5.0 million (CR 32840). At project closure, 82 percent of the Credit had been disbursed. The project was closed on schedule in March 2003.

The report presents the findings of: (1) review of the projects' implementation completion reports, appraisal reports, legal documents, sector reports and other relevant material; and (2) an IEG mission to Bangladesh in October 2005, including visits to project sites and discussions with government officials and agencies, project directors and staff, beneficiaries, key donors and academia. The collaboration of all persons met is gratefully acknowledged.

The three projects were selected because each was in a different sub-sector and the varying approaches adopted among the different sub-sectors provided the opportunity to learn through comparison of their respective achievements and issues encountered. The timing of the PPAR is opportune as Bangladesh's new Poverty Reduction Strategy Paper was issued in October 2005 and the latest Country Assistance Strategy was approved in February 2006; and both can be expected to generate discussion on future options. This PPAR can contribute to discussions on both these strategies.

Following standard IEG procedures, copies of the draft PPAR were sent to government officials and agencies for their review and comments. No comments were received.

Summary

This is a Project Performance Assessment Report (PPAR) for Bangladesh on the Forest Resources Management Project (FRMP); the Silk Development Pilot Project (SDPP); and the Agricultural Services Innovation and Reform Project (ASIRP).

The projects' common denominator is the rural sector and the need to enhance sustainable pro-poor rural growth. In other respects, the projects and their implementation experiences are distinctly different. By comparing such differences the PPAR casts light on the compatibility of a strategy which aims simultaneously for a strongly growth-oriented rural development program as well as one which is effectively oriented to poverty alleviation.

The rural sector dominates Bangladesh's economy and social fabric. Rural areas contain 75 percent of the population and 85 percent of the poor. The rural economy contributes 21 percent of Bangladesh's GDP, two-thirds of its employment and a quarter of export earnings. The country, with a per-capita income of only US$ 440 per year, is one of the poorest in the world, and its poverty is overwhelmingly concentrated in rural areas, which contain some 85 percent of the Bangladesh's poor.

Bangladesh's most recent Poverty Reduction Strategy Paper (2005) has appropriately highlighted pro-poor agriculture growth as the country's highest priority, commenting that agriculture is "the key driver of pro-poor growth strategy." The Bank's new Country Assistance Strategy (2006) also emphasizes agricultural development as "critical to pro-poor growth." Bangladesh's substantial dependence on agriculture for employment and for addressing poverty is primarily reliant on rapid agricultural growth that includes the poor, women and other marginalized groups. Since the country has no unused land available for increasing the cropped area, pro-poor and sustainable rural growth must necessarily be based on enhancing productivity: through increased yields, diversifying to higher-value crops, and adding value through quality improvement, processing and/or exporting. Rapid and continuous enhancement of agricultural productivity is Bangladesh's major challenge.

All three projects contributed to pro-poor growth, though to varying degrees. The ASIRP had the highest relevance to large-scale agricultural growth, as it tackled, head-on, Bangladesh's productivity challenge. The project used a new approach to agricultural extension based on partnerships with NGOs, and the project initiated and developed an export market for horticultural products. Further, its agricultural extension component had widespread coverage, with potential for subsequent scaling-up to a national program. The FRMP's relevance was substantial since it enhanced forest and land conservation and increased coastal protection against hurricanes, and its community forestry had strong poverty-alleviation benefits. The SDPP was also substantially relevant. It aimed to foster the major increase in productivity that the silk sector needed, and more than 80 percent of the beneficiaries were poor women. But the SDPP's relevance is somewhat moderated because the limited size of the market for Bangladesh silk means that sericulture can never be a significant driver of broad-based rural growth.

The outcome of the Forest Resources Management Project was **satisfactory**. It achieved its objectives in forestry planting, conservation, and strengthening the capacity of forestry institutions, and did so efficiently. The project's institutional development impact

and sustainability are rated substantial and likely respectively. The FRMP was the only project with a strong resource management base; it provided tree cover for Bangladesh's fragile upland soils, and the mangrove plantations on the coast reduced vulnerability to hurricanes. Both the Bank and the Borrower designed and managed the project satisfactorily. In relation to the pro-poor growth challenge, the FRMP's most significant accomplishment was its successful piloting of community-based forestry. The participants were specifically chosen among the poor and women-headed households. Tree survival was 20 percent better than on government plantations. Furthermore, there are early indications that tree survival may be even better on the plantations of the particularly impoverished; for landless families and women, the productivity of their plantations – their only resource - is vitally important.

The outcome of the Silk Development Pilot Project was **moderately satisfactory**. It achieved its primary objective to hike-up the productivity of silk production, and, mainly due to sericulture's nature as a highly labor-intensive and home-based activity, nearly all of the participants were poor women. However, the SDPP's efficiency was modest as the number of beneficiaries was only half the appraisal target. This smaller scale was, nevertheless, still adequate to successfully pilot the improved technologies. Institutional development was substantial: a new stakeholder-oriented Silk Foundation for promoting sericulture was successfully established, and the NGO sector developed capacity for sericulture extension. The Silk Foundation, the NGOs and the private sector became complementary partners, each contributing in areas where it was strong. This achieved greater overall impact than if they had acted alone. The SDPP's sustainability is rated likely, though with some risks: a further jump in productivity would reduce vulnerability to world price fluctuations, and the Silk Foundation would be more self-reliant if it became financially independent from the government. The performance of both the Bank and the Borrower was satisfactory.

The outcome of the Agricultural Services Innovation Reform Project was also **moderately satisfactory**. One of the two major components – the drive to break into the high quality-high value export market for horticultural produce – had achievements well in excess of targets. The catalyzing Foundation – HORTEX – did well in facilitating the first market entry and in subsequently supporting a growing private sector. The other component - agricultural extension - was an innovative approach based on partnerships between the Department of Agricultural Extension and locally based NGOs. The Department of Agricultural Extension provided technical capacity and the NGOs, through their wide-spread network of field based staff, added their significant comparative advantage in socially inclusive extension. However, while informal feedback suggests that productivity increased and social inclusion was good, there is minimal data to confirm such outcomes. Thus, overall efficacy is rated conservatively as modest. The ASIRP's institutional development is rated substantial because the private horticultural export sector expanded, and the capacity of the Department of Agricultural Extension and its NGO partners improved. The ASIRP's sustainability is unlikely. While HORTEX and the private exporters are well established and horticultural exports are increasing, the agricultural extension component received minimal government funding after the project. Hence, without follow-up, the gains made in agricultural extension are in danger of disappearing. Both the Bank and the Borrower performed satisfactorily.

Four specific lessons regarding the pro-poor growth challenge, and a final lesson related to the Bank's strategy for Bangladesh's rural sector have emerged from this review.

The first four lessons are closely interlinked, and, together, provide two important observations. First, the projects illustrate practical ways to emphasize growth and social equity at the same time, and even that improving equity can also improve productivity. Second, actions across the four areas can be mutually reinforcing. Pro-poor and gender-inclusive agricultural growth can be further stimulated when more than one action area is tackled simultaneously.

(1) **Dedicated focus on enhancing productivity pays off.** Breakthroughs in productivity can be triggered by making a quantum improvement in productivity a major goal and specifically addressing this in project design. Without designing the project to this effect, productivity breakthroughs may not occur. Under the SDPP, the production and sale of high-yield eggs, training for improved rearing and reeling practices and the introduction of improved technology caused the productivity of sericulture to increase by 50 percent. The project's emphasis on productivity was reflected in SDPP's monitorable indicators; all of them were to measure productivity changes. The ASIRP's HORTEX component had a breakthrough by Bangladesh into the much higher-value horticultural export market as its exclusive objective. The project's design – comprising identification of international markets, product promotion, and technical assistance for entrepreneurs in production, grading, packaging and quality control – fully reflected this. The FRMP's design did not emphasize a hike in productivity, and no major gains occurred in the productivity of the forestry sector.

(2) **Socially inclusive rural development need not constrain rapid agricultural growth.** Project features for targeting benefits for the poor and women may even be designed to enhance agricultural growth. Over 80 percent of the SDPP participants were poor women, and they showed greater interest and care in rearing and reeling - hence in adopting sericulture and achieving higher productivity - than wealthier households. Poor women were the primary target of the SDPP's NGO extension services. Under the FRMP's community forestry program, higher productivity, sustainability and social inclusion were found to be mutually complementary to each other. Tree survival and groundcover significantly increased, yields will be higher, and poor families and women are the primary beneficiaries. The influencing factor for the increased productivity and sustainability was the switch to community management by the socially disadvantaged, who took greater care of the plantations than government or wealthier households.

(3) **Government-civil society partnerships can enable gains in development capacity, both for social inclusion and for agricultural growth.** Partnerships play to Bangladesh's strength – its NGO sector – among the most flourishing in the world. Such partnerships were a major source of improved governance and increased vitality in the SDPP and the ASIRP. For both projects, the NGO sector, with its extensive network of field staff, enabled including a larger number of beneficiaries than government services could provide alone, brought in additional technical expertise to boost agricultural productivity, and provided a greater capacity and greater inclination to include women and the poor.

(4) **To enhance benefits for women and the poor, project formulation needs the systematic integration of measures to achieve this.** Actions were taken in all three projects to enhance benefits for women and the poor. However, as is commonly found in development projects, such efforts were more in the nature of "add-ons." More could likely have been achieved if these social objectives had been specifically featured and fully integrated in the projects' design, costing, institutional arrangements, staffing, management processes, the logical framework and monitoring. The inclusion of gender/social specialists in both Bank teams and implementation agencies would also be desirable.

(5) **The Bank's rural project portfolio in Bangladesh would merit scaling-up, prioritizing, a longer-term program approach, and a better strategic framework.** The Bank's rural lending portfolio in Bangladesh has not reflected the priority accorded to rural development in the most recent PRSP and CAS. Only one of Bangladesh's 23 projects approved in FY01-05 was rural, and the proposed FY06-09 lending program in the 2006 CAS has only one rural project out of the 24 projects listed. Rural lending has also lacked continuity (none of the three projects had follow-on projects), and has sometimes had unrealistically short project time-frames (the ASIRP had only a 3½ year project period, which was not extended). Also, the rural project portfolio is not discernibly organized to support prioritized thrusts within a coherent overall program. Rural sector work has recently picked up, but there is still need to develop a comprehensive and focused rural strategy.

Vinod Thomas
Director-General
Evaluation

1. Bangladesh's Rural Challenge

1. The rural sector dominates Bangladesh's economy and social fabric. Rural areas contain about 75 percent of the country's 141 million population and 85 percent of the poor. Agriculture contributes about 21 percent of Bangladesh's GDP, two-thirds of the country's total employment and a quarter of total export earnings, and has enabled Bangladesh to be substantially self-reliant in basic foodstuffs. Agricultural GDP has grown in the last decade at about 4 percent per annum and compares with the country's overall GDP growth in the same period of 5 to 6 percent per annum. The GDP growth rates are somewhat higher than the overall population growth in Bangladesh of 1.7 percent per annum. These figures indicate the particularly high significance of Bangladesh's rural sector. Pro-poor growth in the rural sector would appear to be an essential need in Bangladesh's development, especially for employment and, above all, for any poverty alleviation strategy.

THE PRIORITY PLACED ON RURAL DEVELOPMENT

2. Both the Government of Bangladesh and the World Bank concur that the development of Bangladesh's rural sector is essential. Bangladesh's recent Poverty Reduction Strategy Paper (PRSP), issued in October 2005, gives clear priority to rural development, stating that "agriculture and the rural economy are recognized as the key driver of pro-poor growth strategy" and "the strategic importance of agriculture and rural development stand second to none."

3. The Bank's 2001 Country Assistance Strategy (CAS) also emphasized pro-poor rural growth, stating that rural development is one of "the three most powerful lines of attack against poverty."[1] Similarly, the most recent CAS, issued in February 2006, includes agriculture in its listing of four sectors "critical to pro-poor growth.'

THE KEY CHALLENGE

4. The primary driver of pro-poor agricultural growth will need to be a rapid and sustained increase in agricultural productivity. This is the major challenge that Bangladesh must meet. Since it has no unused agricultural land for further development,[2] the only ways to foster increases in agricultural productivity are through: (1) yield increases; (2) diversification to higher value crops; and (3) enhancement of value through quality improvement, processing and/or exporting. Agricultural growth should also be socially equitable. Hence, the overarching need is to significantly enhance Bangladesh's currently low agricultural productivity while at the same time orienting agricultural growth to include improved welfare for the poor and women.[3] Given this important dual need – growth with

1. The other two priorities for pro-poor growth were identified as support for human development (education and health) and accelerated growth of the private sector.

2. In fact, the agricultural area is declining by about one percent per annum as more area is being used for urbanization and infrastructure development. (*Source: WB Report No. 34543-BD; Bangladesh: Revitalizing the Agricultural Technology System in Bangladesh, November 30, 2005)*

3. The rural non-farm sector is also an important part of a rural development strategy; but this is beyond the scope of the three projects reviewed in this assessment.

equity – the PPAR seeks in particular to address this issue: the compatibility of a rural strategy which aims simultaneously for a strong growth-oriented rural development program while also being strongly oriented to poverty reduction.

CONTRIBUTIONS TO PRO-POOR RURAL DEVELOPMENT

5. The 2005 PRSP highlighted the contribution of a number of agricultural sub-sectors to pro-poor rural growth, including field crops, forestry, fisheries, and livestock/poultry. Of these, the PRSP saw the development of the forestry sector – the focus of the first project in this Project Performance Assessment Report (PPAR) – as a contributor both to GDP growth and environmental protection. To this list, the IEG mission would add two other sub-sectors, sericulture and horticulture. These sub-sectors have the potential for rapid growth and are the focus of the second and third projects reviewed in this PPAR. The PRSP also mentioned broad-based support to rural development, including the centrally important services of agricultural research and extension. Other actions to improve agricultural productivity include supporting services and infrastructure such as rural finance, storage, marketing, rural roads, and electrification.

6. **Cross-cutting issues**. The 2005 PRSP focused on several cross-cutting issues which also emerged as important factors in this PPAR. First the PRSP supports the use of partnerships between the public sector and civil society, which have the potential to increase the overall capacity of the government to implement development activities. Second, it recognizes the evident need to include women and the poor in a pro-poor growth strategy for rural development. The need to improve agricultural technology is also discussed in the PRSP, although this is not given as dominant a focus. The IEG mission would emphasize that this is a core need – to promote new technologies and institutional capabilities that can lift the productivity of rural sub-sectors and the rural sector overall onto a much higher plane. To significantly enhance rural development in Bangladesh, marginal changes in productivity will not be enough.

THE THREE PROJECTS

7. **The Forest Resources Management Project (FRMP)**, which was approved in June 1992, was the largest of the three projects with a cost of US$ 53 million at completion. This was the first of the three projects to be approved and had an unusually long project implementation period of 9 ½ years, not closing until December 2001. Its objectives included institutional strengthening of the Forestry Department and its supporting agencies, improving the productivity of government-owned forests, and protecting the environment.

8. **The Silk Development Pilot Project (SDPP)**, which was approved in November 1997 and closed 5½ years later in December 2003, was a much smaller project than FRMP, with actual project costs of US$6.5 million. This was a pilot project that would set the stage for a possible longer term program of revitalizing the moribund silk sector. It was focused less on physical targets (such as aggregate area and total production) than on hiking up the productivity of the sector, which would improve producers' incomes, especially women and the poor, and make Bangladesh more competitive with other silk producing countries. Project components included institutional reform, productivity enhancement, dissemination of new

technology, and promoting the silk market. The majority of the project's monitorable indicators related to productivity.

9. **The Agricultural Services Innovation and Reform Project (ASIRP)**, which was approved in September 1999 and closed in March 2003, had a very short project implementation period of only 3½ years. This was a Learning and Innovation Loan (LIL) of US$ 5 million and actual project costs of US $12.6 million. As with SDPP, ASIRP was focused on stepping up productivity. ASIRP was in effect two projects: (1) an agricultural extension project fostering partnerships between the Department of Agricultural Extension (DAE) and other extension providers (both NGOs and private entrepreneurs), and (2) a program to support through the Horticulture Export Development Foundation (HORTEX) Bangladesh's entry into the high quality/high value horticultural export market.

10. Ratings for the three projects are discussed in three sections below, one for each project, starting with the first approved project (FRMP), followed by SDPP and then ASIRP. Each section starts with a summary table of the project's Development Objectives (DOs), an assessment of the relevance, efficacy and efficiency in achieving each development objective, and the overall outcome rating for each project based on these sub-ratings. Then each section continues by assessing the project's Institutional Development Impact and Sustainability, and concludes by assessing the Bank's and the Borrower's performance in preparing and implementing the project.

2. The Forest Resources Management Project (FRMP)

RELEVANCE

11. The relevance of the FRMP is rated **substantial.** Sound stewardship of Bangladesh's land and water resources is important for the sustainability of agriculture, and the coastal (mangrove) forestry is an important mitigator against hurricane tidal surges. The protection of Bangladesh's reserves and parks is also important. As stated in the discussion on achieving the Millennium Development Goals in the 2006 CAS, "Reversing the trend of deforestation . . . . weighs heavily on the MDG agenda of ensuring environmental sustainability." The small pilot participatory forestry component under the project's first objective also represented a commitment to involve local communities in forest development and protection. The pilot program was expanded from two sites to nine after the second mid-term review in June 1999 due to the increasing acceptance and success of this approach. Both the 2005 PRSP and the 2006 CAS emphasize community-driven development.

Table 1. Assessment of Development Objectives and Overall Outcome for FRMP

Development Objectives	Relevance	Efficacy	Efficiency
(1) Establish and maintain a forest management system that is fully responsive to the economic, environmental and social goals of the country	High	High	Substantial
(2) Improve the productivity of government-owned forests in order to meet, as much as possible, the country's wood and energy needs	Substantial	Substantial	Substantial
(3) Protect the country's environment	Substantial	Substantial	Substantial
Overall Project	Substantial	Substantial	Substantial
Overall Project Outcome		Satisfactory	

EFFICACY

12. Achievement of the project's first objective – establishing a forest management system that is fully responsive to the economic, environmental and social goals of the country – and which comprised institutional strengthening, planning, capacity building and community participation activities, was **high**. A reorganization of the Forestry Department (FD) resulted in the formation of a management planning division, an environmental wing, and some decentralization of staff and authority to the field. Forest inventories were carried out and eight Integrated Forest Management Plans (IFMPs) were prepared, as targeted at appraisal. However, a common problem was that the resource data essential for plantation management were not regularly updated. The Resource Information Management System established under the Second Forestry Project was somewhat strengthened through adding of GIS data, but its usage in management decisions was limited. Analyzed data from the monitoring and evaluation system was not effectively retransmitted to field managers.

13. Probably the most strategically significant outcome of FRMP was the largely successful piloting of participatory forest management. The pilot was extended to 850 ha over nine sites (compared with the appraisal target of 400 ha over three sites) and involved 675 participants. But much more important than these numbers is the positive experience and the lessons learned. The IEG mission visited and had detailed discussions with four communities in both mangrove and dry-land forestry areas. Plantations were well established with minimal tree losses, and the participating communities were unanimously enthusiastic. The paradigm shift in the view points of FD staff towards participatory forestry was also remarkable. Initially, FD staff had been highly skeptical of participatory forestry. But, due to its emerging success, the mission found a sea-change in attitudes towards participatory forestry, both at the central and field levels. Clearly, a strong commitment has replaced the initial skepticism of community forestry, a commitment which was reported to have grown further since the project closed. One of the major factors responsible for the turnaround was the observation by FD staff and others that community-managed forests experienced minimal tree losses compared to government plantations. Government-managed forestry typically experienced losses of 20 percent or more during the first few years, and rising even higher as the plantations matured, especially when they were located away from the roads. The

emerging success of community forestry stimulated the Forestry Department to prepare an amendment to the Forestry Act in 2000 so as to provide the enabling legislation for implementation of community-based forestry. The Chief Conservator of Forests advised the mission that participatory forestry was now going to be rolled out to cover most of the plantations close to human settlements. In his words, "community involvement has now become a socially accepted concept for FD to develop its resources."

14. The community forestry program is a particularly good example of a situation where both productivity enhancement and social welfare are complementary to each other. The participants were specifically chosen among the poor and women-headed households. These participants have so far proven to be good stewards of the plantations. Tree survival has been 20 percent better than on government plantations. Furthermore, there are anecdotal indications that tree survival may be even better on the plantations of the particularly impoverished. For landless families and women, the productivity of their plantations – their only resource – is vitally important.

15. The project's second objective – to increase the productivity of government forests – and which included investment in new forest plantations, rehabilitation of degraded forests, and maintenance of plantations established under the Second Forestry Project, was **substantially achieved**. The plantation targets were achieved, with good seedling survival rates. Some 33,600 ha of mangroves were planted against an appraisal target of 32,900 ha. About 36,500 ha of industrial plantations were established, including additional rehabilitation of degraded areas, against an appraisal target of 26,900 ha.

16. The third objective – to protect the country's environment – was **substantially achieved**. The environmental management capability in the FD was enhanced through the reorganization and subsequent capacity building. The main activity under the objective was to prepare management plans for the Sundarbans wetlands, a Ramsar site,[4] and this was achieved. Conservation plans were also developed for 11 of the country's other 13 protected area parks, although most plans are indicative rather than ready for implementation. The mangrove investment is expected to have significant protective value against cyclones, for which Bangladesh is highly vulnerable due to its low topography (over 140,000 people died from a hurricane induced tidal surge in 1991). A visit by the mission to a village on the coast, found clear understanding of the protective value of its mangrove belt, and minimal signs of any tree felling by local or other people.

EFFICIENCY

17. FRMP costs at completion were within the estimated project costs at appraisal (90 percent), and the project closed not far from the original closure date (a one-year extension). The ICR's re-estimated ERR for the project overall is 13 percent – slightly lower than the appraisal estimate of 16 percent, due mainly to unrealistic growth rates assumed at appraisal. While the revised ERR is only just above the opportunity cost of capital in

4. The Convention on Wetlands, signed in Ramsar, Iran, in 1971, is an intergovernmental treaty which provides the framework for national action and international cooperation for the conservation and wise use of wetlands and their resources. There are presently 1590 wetland sites, totaling 134 million hectares, designated for inclusion in the Ramsar List of Wetlands of International Importance.

Bangladesh of 12 percent, the environmental benefits were not quantified at either appraisal or completion. Yet these are a substantial part of re-forestation benefits, especially for mangroves with their mitigating impact against hurricanes. Taking into account such environmental benefits, efficiency is rated **substantial**.

OVERALL PROJECT OUTCOME

18. The overall project outcome is rated **satisfactory**, compared to the moderately satisfactory rating by the ICR Review, for several reasons. First, this PPAR assesses the relevance of the project in a wider perspective and views the forestry program as an important contributor to Bangladesh's critical need for improved land and water management. Second, the PPAR attaches greater importance to the likely strategic significance of participatory forestry. Some four years after the ICR Review, participatory forestry has further advanced and shown its potential for increasing the sector's productivity and sustainability.

INSTITUTIONAL DEVELOPMENT IMPACT

19. The reorganization of the Forestry Department, including the establishment of planning and environmental wings, and some decentralization of staff to the field, has had a positive impact. The Forestry Department has progressively become a more effective agency as a result of capacity building through training and though experience gained in the project's technical activities, including its community outreach activities. On the other hand, it would be desirable for promotions to be based on merit rather than on the present seniority-based system. Also, the IEG mission observed some communications, but not as much as desirable, between FD staff and the Bangladesh Forestry Research Institute (BFRI). Greater linkage and more two-way flows of information would help make applied research more demand-driven.

20. The intended strengthening of the Institute of Forestry and Environmental Science, Chittagong University (IFESCU), was reported by FD staff to be highly successful, which was confirmed in a mission visit to IFESCU. In particular, the capacity of the faculty has been increased through Ph.D. programs involving nearly all core staff, so that IFESCU is now able to offer Ph.D. programs itself, compared to only the B.S. level previously. IFESCU has also established a good working relationship with the FD, which is enabling a closer alignment of courses to the country's needs. Nevertheless, there is a need to examine the capacity of all universities providing forestry degrees and to rationalize programs. The FD felt that, nationally, the number of graduates at the B.S. level might now be exceeding the demand.

21. Overall, the institutional development impact is rated **substantial**, compared to the modest ratings in the ICR and ICR Review. Among the developments supporting an upgraded assessment are the changing culture in the FD regarding community forestry, which was less noticeable at project closure, and the further improvement in IFESCU's capacity.

SUSTAINABILITY

22. The FD has been strengthened during the project period and continued capability can be expected. A very positive development has been the emergence of participatory forestry. Community involvement has resulted in minimal tree losses compared to exclusively government implemented plantations where illegal felling can reduce tree cover by at least 20 percent, or well over this amount. Over time, FD's intended scaling up of community forestry can be expected to significantly reduce tree losses.

23. Sustainability is rated **likely** compared with ratings of likely and non-evaluable at the ICR and ICR review stages. The upgrading on the ICR review is primarily due to the further strengthening of the FD four years after project closure and to the more evident promise of participatory forestry.

24. Nevertheless, one risk area that still needs attention is inadequate funding of thinnings in government plantations during the earlier stages of tree growth.[5] As a government department, the FD sends its revenues to the central exchequer, but has not in the past been adequately provided with subsequent government funding for thinnings. By way of illustration, FRMP itself funded continuing maintenance of the Second Forestry Project's plantations, although forestry maintenance could be self-financing. Encouragingly, and another reason for the assessed likely sustainability, a government order has recently been issued for participatory social forestry plantations, which allows the FD to keep 10 percent of its revenues as a "tree farming fund." Adequate funding will also be needed for future plantation development and management.

BANK AND BORROWER PERFORMANCE

25. The project comprehensively addressed most of the forestry sector's strategic needs. Within the four components there were many sub-components, and the project design was, therefore, ambitious in its targets, and potentially risky. However, implementation was largely successful and the project achieved its physical targets, in the event justifying the comprehensive approach taken. Factors contributing to successful implementation included strong commitment of the FD, regular and high quality supervision missions, good synergy between the Bank and the FD, guidance from a highly detailed (almost overly designed) appraisal report, the experience gained under the previous two Bank forestry projects, and the long project duration. Both the Government of Bangladesh and the Bank usefully adopted a flexible and learning approach during implementation.

26. Key shortcomings on the government side were that minimal headway was made to resolve the funding problem for thinnings and plantation maintenance, and that government approval procedures were lengthy (a general problem in Bangladesh). On the Bank side,

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5. The vulnerability of the project to poor maintenance can be gauged from the sensitivity of the economic rate of return (ERR). Thus, in the appraisal report analysis (the ICR had no sensitivity analysis), a 20 percent reduction in revenues was found to result in a two percent decrease in the ERR. Applying this two percent drop to the ICR's recalculated ERR, the project ERR would fall from 12.9 to 10.9 percent. A similar effect would apply to reduced benefits resulting from illegal wood cutting, though this risk will be reduced as the participatory forestry program develops further.

there were some unrealistic assumptions in project design: four legal covenant actions were dated to be completed within four months of Board approval, and another four within six months of approval. It would have been better if all or most of them had been completed during project preparation, and then to provide a more realistic time period for completing the remaining covenants during implementation. These weaknesses notwithstanding, the overall performances of both the Bank and borrower were **satisfactory** – the same rating as in the ICR and ICR Review.

3. The Silk Development Pilot Project (SDPP)

RELEVANCE

27. Even more than the other two projects, SDPP's very purpose was to foster the major increase in productivity that the silk sector needed. The SDPP's pro-growth orientation was strongly matched by sericulture's natural characteristic of being an activity favoring the poor and women, usually combined. The vast majority of the beneficiaries – probably over 80 percent[6] – were poor women. Sericulture, and its ancillary activities such as reeling, are naturally suitable for poor women since it is a home-based, labor-intensive activity that can be undertaken using a small plot of land, or, if the participants are landless, based on buying mulberry leaves. The returns from sericulture are of less interest to better off families. Poor women showed greater interest and care in rearing and reeling–hence in adopting sericulture and achieving higher productivity–than wealthier households. The naturally inclusive nature of sericulture was further reinforced in effect by the NGO extension services, which made poor women their primary target. Thus, sericulture and the SDPP exemplify, to an unusual degree, a strong complementarity between high productivity and social inclusion. SDPP was very relevant to pro-poor agricultural growth, Bangladesh's primary development need.

28. As a pilot project, the size of the SDPP was sufficient to develop and test, along with NGOs and other actors, the project's productivity objectives. The project was also large enough to set the stage for subsequent expansion of the silk sector. But, while some further expansion of Bangladesh's silk sector can be anticipated, this is probably limited by the lower value of Bangladesh's silk on the international market. Due to the lower quality mono-voltine cocoons suited for Bangladesh's low altitude conditions, Bangladesh may be able to develop a niche market for the weft yarn in weaving and for particular types of garments. But China and India have a comparative advantage arising from the upland conditions of most of their production areas, though Bangladesh labor costs are increasingly competitive, especially with China.

29. In view of these probable market constraints, SDPP was less likely to be a major contributor to agricultural growth compared to ASIRP which attempted to tackle head-on the broader agricultural productivity challenge facing Bangladesh. Hence, while in other respects the relevance of SDPP could be considered high, it is rated **substantial** relative to Bangladesh's primary need for a broad-based acceleration of rural growth.

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6. Some estimates are higher than 80 percent. BSRTI's letter to the mission dated October 2, 2005 suggests that, for SDPP beneficiaries, 95 percent or more of the beneficiaries were poor, of which 85 percent or more were women.

Table 2. Assessment of Development Objectives and Overall Outcome for SDPP

Development Objectives	Relevance	Efficacy	Efficiency
As a pilot project and as the first phase of a long-term program, to assist in increasing the incomes of small-scale silk producers, most of whom are poor women, through introducing improved technology and creating institutional and policy improvements designed to encourage sustainable development of the silk sector. The project aims to address the institutional, economic and technical constraints that are affecting silk development in Bangladesh.	Substantial	Substantial	Modest
Overall Project Outcome		Moderately Satisfactory	

EFFICACY

30. The silk sector experienced two initial setbacks at the beginning of the project which adversely affected Bangladesh's silk production. First, a major flood in 1998 is reported to have wiped out about half of the mulberry tree area. Second, the Government removed a 30 percent tariff on raw silk imports at about the same time as the international market began to be flooded by cheap exports of silk from China. As a result, the number of silk worm rearers declined by about 25 percent and domestic silk production fell to about 50 percent of mid-1990s levels. While silk weaving and garment manufacture still thrived, mostly using cheaper imported silk yarn, the incomes of producers (silk worm rearers and silk reelers) were severely reduced.

31. However, the underlying objective for the pilot project was related more to improving the sector's efficiency than to overall production targets. (The project was actually scaled back at mid-term review to about half of its original quantitative targets.) By fostering increases in productivity, the project was intended to set the stage for a more competitive domestic silk sector, thereby enabling its future expansion and leading to higher incomes for the poor, especially women. By this measure and based on the achievements discussed below, the efficacy of SDPP is rated **substantial**, because the pilot activities achieved sufficient scope to demonstrate technological innovations and to learn from such experience.

32. The three key monitorable indicators specified in the appraisal report – all relating to productivity – were largely achieved

- Rearing productivity went up from 22 kgs of cocoons per 100 dfls (disease-free layings) to 37 kgs per 100 dfls – about the same as the appraisal target of 28 kgs.
- Reeling productivity ("renditta") improved from 18 kgs of cocoons per kg of raw silk to 12 kgs of cocoons of raw silk, the same as the appraisal target.
- Daily incomes from rearing increased from Taka 18 per 100 dfls to Taka 62 for 100 dfls, compared to the appraisal target of Taka 70 (1997 constant prices).[7]

7. Two sources of data on these parameters are available: first, from the Silk Foundation's individual records by rearer, and second, from a sample survey by the Bangladesh Institute of Development Studies (BIDS). The data are broadly similar. Those from BIDS are cited here.

33. A number of the project's institutional objectives involved reducing the powers and removing certain functions from the Bangladesh Sericulture Board (BSB) – a government parastatal – on the grounds that it had become substantially dysfunctional and was holding up rather than facilitating silk sector development. The BSB's monopoly of the production of silk worm eggs and in setting cocoon prices was removed, as well as the BSB subsidies on its eggs. A new entity, the Silk Foundation (SF), was created and registered under the Companies Act at the beginning of the project in 1997. This was set up as a non-profit entity that would eventually cover its own expenses.[8] It was charged with coordinating the project and leading the silk sector into the future – including monitoring the development of the sector and steering policies, promoting silk industries and market development, training, and being a resource in sericulture expertise. As a foundation, it was also intended to become progressively autonomous from the government (eight of the 12 Board members are sector stakeholders).

34. The IEG mission reviewed the suitability of establishing the Silk Foundation rather than trying to strengthen the existing Bangladesh Sericulture Board, and concluded that establishing the SF was the better approach in the particular circumstances of Bangladesh's silk sector. In discussions with various stakeholders in the sector – including NGOs, industrialists, and academia – the mission was told that the BSB had been unable to significantly benefit the sector. The quality of BSB eggs, research, training, and extension support was poor. It was a government parastatal with a substantial staffing[9] and an unwieldy management. Turning this situation around would have been difficult. A new start – creating the Silk Foundation – was more likely to be successful than trying to revamp BSB. From the outset, the SF could be a more stakeholder-oriented entity, with producers, NGOs, and the private sector on its Board. As a facilitating agency, it could be small: excluding egg production staff, the SF currently has only nine staff, of which six are professional. As things have turned out, the decision to create the SF appears to have paid off, given its significant achievements in a project period of only 5½ years. These include supporting the development of research capability, improving SF Germplasm Maintenance Centers, training, technical support for extension activities, demonstrations of new technology and caterpillar-raising, and some market promotion activities for silk garments. There remains, however, the still unresolved issue of what to do with BSB.[10]

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8. Over time, the SF should aim to be financially independent from government, drawing revenues from contributions of its stakeholders (for instance, a small levy could be applied on all sales of dfls, both from government and non-government grainages). This would provide greater security of funding for the SF as well as a built-in incentive for the SF to be responsive and accountable to its contributing stakeholders. But, while the objective for the SF to become financially independent from government is sound, the period of time assumed for the SF to become financially self-sufficient required more realism. The Bank had established a target of five years from project approval for the SF to become financially independent. But the transfer of four grainages from BSB to the SF (which was expected to become a primary source of income for the SF) took time. The new SF also required time to build its institutional capacity. The IEG mission agrees with Government that the timing of-the financial independence objective (felt by Government to have been imposed by the Bank) was unrealistic. Nevertheless, there has now been enough time to plan a transition to self-sufficiency, which should be aimed for as expeditiously as possible.

9. BSB did not provide the mission with written data on staffing, although during the mission's visit to BSB, staffing was mentioned to be about 600 persons.

10. BSB is involved with extension in some areas, training and some grainages. It also implements some projects; for instance, a government financed project in the Chittagong foothills.

35. Other institutional objectives of the project were also achieved. Import tariffs on raw silk were removed at the beginning of the project. The Textile Strategic Management Unit (TSMU) in the Ministry of Textiles was strengthened. And, although the Bangladesh Sericulture Research and Training Institute (BSRTI) – a research agency – was not separated from the BSB and its management until late in the project, the mission's visit to BSRTI found it to be an increasingly active entity.

36. One project activity that was dropped, and should not have been, was the sub-component for research and development on bivoltine silk worms or bivoltine-polyvoltine crosses. Bivoltine rearing can achieve significantly higher quality and prices than polyvoltine, but requires more careful rearing at Bangladesh's low altitude. The bivoltine research program was going slowly, but dropping it was a failure to appreciate the importance of a potential technological breakthrough. The potential gains from finding a sure way to rear bivoltine silk cocoons were worth continuing the research, even when no headway was apparent. Only some aspects of any research program will bear fruit, and results from the bivoltine program were, and still are, unpredictable. However, productivity enhancement is Bangladesh's core agricultural need, and the center of the SDPP's objectives. The Government and the Bank should not have abandoned research potentially contributing to major productivity enhancement. This appears to have been BSRTI's view also. It continued bivoltine research, though at minimal levels due to lack of project funds. Also encouraging, the mission found that BSRTI's bivoltine research program had become increasingly proactive subsequent to the project.

EFFICIENCY

37. The efficiency of the project is rated **modest**. No economic rate of return was calculated in the ICR. However, as part of a study on the impact of the SDPP, the Bangladesh Institute of Development Studies has calculated the improvements in the economic efficiency of silk production by the end of the project. The improvement in productivity has been good. The study estimated the Domestic Resource Cost (DRC) to have improved from a DRC for rearing of 2.18 to a DRC of 0.5, a greater improvement than the appraisal target of 0.8.[11] The DRC for reeling went from 3.7 to 1.4, a substantial improvement, although less than the appraisal target of 0.6. However, these DRCs are sensitive to changes in world prices.[12] The project's achievements tended to occur later than targeted, though part of this is due to an unrealistic time-frame set at appraisal. And the actual physical achievements in terms of numbers of beneficiaries were about half of the appraisal targets. While, as discussed earlier, the reduced project size was still sufficient for piloting purposes, the project's efficiency in achieving its piloting objectives was nonetheless reduced. The efficiency rating is also pulled

11. The Domestic Resource Cost is a measure of a country's comparative advantage in the production of a particular commodity relative to other countries. The lower the DRC, the stronger the comparative advantage.

12. International prices will be crucial for Bangladesh. A comprehensive market and price study is recommended as part of planning future silk development in Bangladesh.

down by the continuation of two agencies – the Silk Foundation and the Bangladesh Sericulture Board – for substantially the same purpose.[13]

OVERALL PROJECT OUTCOME

38. The overall project outcome is rated **moderately satisfactory**, compared to the ICR and ICR Review ratings of satisfactory. The SDPP was substantially relevant and substantially achieved its main objective of enhancing the productivity of silk production, but was only modestly efficient in doing so.

INSTITUTIONAL DEVELOPMENT IMPACT

39. The institutional development impact is rated **substantial**. Over a relatively short period, the SF was formed, the BSRTI was separated from the BSB, and the capacity of both the SF and the BSRTI was improved. The feedback which the IEG mission received from NGOs, private firms, and the Bangladesh Institute of Development Studies all indicated a positive assessment of the SF, in particular concerning the improved quality of silkworm eggs. Discussions with private weavers and two NGOs also indicated that the capacity of the participating NGOs and private entrepreneurs has improved. This rating represents an upgrade from the modest rating at ICR and ICR Review stage due to the continued institutional strengthening of the SF and BSRTI since the closing of the project.

SUSTAINABILITY

40. The achievement of the project's objectives to improve the welfare of beneficiaries, especially poor women, through enhancing silk sector productivity can be expected to continue. The SF, the BSRTI, NGOs and the private sector have developed the capacity to serve their clients, and the demand for their services from the beneficiaries is strong. Sustainability is rated **likely**, compared to unlikely at the ICR Review stage, because the institutions involved have maintained or further strengthened their capacity since the project closed 2 ½ years ago, and because the improvement in silk sector productivity, which appears to have been maintained, has increased Bangladesh's ability to compete in international markets.

41. Nevertheless, the likely rating is somewhat marginal since the silk sector still needs to develop further resilience to several risks. Until the SF is a fully stakeholder-led entity and financially independent from the government, it could be vulnerable to adverse future political or budgeting influences. The continued existence of the BSB also adds some unpredictability to government decisions relating to the SF. And world silk prices and market decisions of major producers such as China and India remain uncertain. The first two risks can be mitigated through government and SF actions, and vulnerability to declines in world prices can be reduced through further increases in silk sector productivity.

13. There are some differences. BSB does more extension work with its own staff than SF, which supports NGOs for this purpose. The SF, working with BSRTI, the NGOs and the private sector, has increasingly become the main actor in promoting innovations in the sector.

BANK AND BORROWER PERFORMANCE

42. The Bank and the Government of Bangladesh, working together, devised a strongly reformist project that tackled most of the elements required for revamping the sericulture sector. This required a perceptive overall vision for the sector, an innovative project design, and a willingness to take risks. The deregulation of the sector and the shift to stakeholder implementation were appropriate given the past performance of the public sector. The Government undertook a number of difficult actions during project preparation and implementation, such as removing the BSB's monopoly on egg production, cocoon purchases and prices, as well as eliminating import tariffs. Extensive discussions with stakeholders helped gain commitment for these changes. Both the Government and the Bank were flexible during implementation and in adjusting the project as experience was gained. This was particularly important in an experimental project such as SDPP.

43. The main shortfalls on the government side were delays in some of the institutional changes. The BSRTI was only divested from the BSB in July 2003, just after the project closed, so that much of BSRTI's institutional improvement has occurred subsequent to the project, and BSB continues without a clear purpose. From the Bank side, the short time-frame for the SF to become financially self-sufficient was unrealistic for a new entity, especially since this required the timely transfer of grainages from BSB to provide a source of income. The classification of the project's overall risk in the appraisal report as "low/moderate" reflects a general tendency to assume an easier change process than should have been expected. Also, the Bank's decision not to grant an extension of the project of more than six months differed from the Government's more realistic interest in a longer project period. An eighteen month to two-year extension would have enabled more institutional consolidation and greater prospects for sustainability. Finally, there is the question of whether a follow-on project, as visualized at appraisal, would have been beneficial. Notwithstanding these shortfalls, the Bank and Borrower performances were strong in most respects. Both are rated **satisfactory**, the same as at the ICR and ICR Review stages.

4. The Agricultural Services Innovation and Reform Project (ASIRP)

44. This project tended to function as two projects in one. There was a lack of linkage between the Horticulture Export Development Foundation (HORTEX) and the Department of Agricultural Extension (DAE). Component 1 (Export development under HORTEX) and components 2 and 3 under DAE (for strengthening implementation of the New Agricultural Extension Policy (NAEP) and small-scale pilot trials and demonstrations) were effectively managed as two separate projects.[14] Specific complementary actions between HORTEX and DAE would likely have increased the project's impact, although the gains should not be overstated, given the relatively small size of horticultural exports compared with DAE's very

14. Neither the Appraisal Report nor the ICR, other than referring to the Project Coordinating Committee, discussed complementary interactions. The project steering committee, which included both DAE and HORTEX and which might have provided some possibilities for linkage, is reported to have rarely met. During the IEG mission, linkages between HORTEX and DAE were not raised with the mission.

large program.[15] However, the greater gains that can be expected as the marketing of horticultural exports scales up, would have merited seeking complementarity. The lack of linkages is particularly puzzling given that the essence of Bangladesh's NAEP, and of the project's second component, is the encouragement of partnerships between DAE and other entities.

45. The discussion below reflects the two-project nature of ASIRP, dealing with the HORTEX and DAE components separately in each section.

RELEVANCE

46. The relevance of ASIRP is rated **high**. The project attempted to tackle head-on the agricultural productivity challenge facing Bangladesh. Hence, it was central to the fundamental objective in the 2006 CAS's first "pillar": to accelerate the growth of GDP, with agricultural growth as the primary engine enabling enhanced productivity and rural incomes. The rural sector is the home of the majority of Bangladesh's poor.

47. Fostering partnerships with NGOs and the private sector under the New Agricultural Extension Policy was intended to make the extension system more demand-driven and technology-focused than in the past. If successful, this would have a substantial impact on agricultural productivity. The overall impact would potentially be strong since the project covered a large part of Bangladesh's cultivated area. The horticultural export marketing component was also highly relevant, since breaking through the export barriers would access markets with much higher prices.[16] The overall relevance of ASIRP was high because of the strategic importance of the first two objectives of the project, even though the relevance of the third objective was modest.

15. The HORTEX program would have only represented a small part of DAE's broader based program. Nevertheless, the agricultural production aspects of the horticultural export program, although usually assisted by specialized technical staff of the exporting entity, might have been able to benefit from a more proactive DAE program, and DAE staff might have benefited from working on the exacting technical requirements of crop production for the high quality export market.

16. In effect, a jump in productivity, the change here being in the value of production.

Table 3. Development Objectives and Outcome of ASIRP

Development Objectives	Relevance	Efficacy	Efficiency
To test and refine various agricultural technology transfer programs designed to foster more demand-driven and locally responsive extension techniques.			
Specifically, the project aimed to:			
(1) Provide support through the Horticulture Export Development Foundation (HORTEX) to pioneer horticultural production and export activities, with emphasis on contract farming through NGOs or private entrepreneurs	High	Substantial	Substantial
(2) Test and develop methods for improving partnership programs between the Department of Agricultural Extension (DAE) and other extension service providers (NGOs, private sector, and other government departments) in developing and conveying appropriate extension messages (as part of the New Agricultural Extension Policy)	High	Modest	Modest
(3) Carry out small pilot and demonstration programs under the FAO-sponsored Special Program for Food Security (SPFS), of possible measures, linked to a demand-driven extension service, for improving production and food security.	Modest	Modest	Modest
Overall Project	High	Modest	Substantial
Overall Project Outcome		Moderately Satisfactory	

EFFICACY

48. **The HORTEX component**: The ASIRP's first objective – to promote quality horticultural production and exports through HORTEX – was **substantially achieved**.[17] HORTEX was to operate as a promoter and facilitator for horticultural exports to high-value markets, including identification of market opportunities, provision of technical assistance in horticultural production, grading, packaging and market promotion, and provision of some common facilities such as cold storage. Until the late 1990s Bangladesh had not penetrated high-value export markets such as in Europe, America and East Asia, since Bangladesh horticulturalists and businesses were not geared to this. Production was unpredictable with respect to time of harvesting and quantity, quality was variable and often poor, and grading, standardization, quality packaging, market research, brand promotion and linkages with importers in the major importing countries were largely absent.

49. The first export market breakthrough occurred at the end of ASIRP's predecessor project, the Agricultural Support Services Project (ASSP). A consignment of French beans was successfully exported to Europe through a large NGO, the Bangladesh Rural Advancement Committee (BRAC). HORTEX had provided assistance to BRAC which had

17. The ICR for ASIRP (in 2003) evaluated the HORTEX component as "satisfactory". The PPAR for ASSP (also in 2003) provided positive commentary but considered that the achievement at that stage represented only "a modest kick-start." HORTEX had been established in 1993 yet, from comments made to the IEG mission, made little progress in the 1990's. It appears that it has only been in the last several years that HORTEX has significantly developed as an institution.

no prior experience in horticultural exporting and associated high quality production. From this small beginning – from no exports in 1996/97 rising to 42 tons metric tons in 1998/99, when ASIRP began – an increasing number of firms entered the fresh produce export market. Exports during the project period were 169 tons in 1999/2000, 262 tons in 2000/01, 461 tons in 2001/02 and 616 tons in 2002/03. Exports continued to increase after the project closed, to 837 tons in 2004/05. Fresh produce exports of 1,200 tons over the project period more than doubled the appraisal target of a total of 535 tons. Frozen produce exports also commenced during the project period, starting in 2001/02 and reaching 369 tons in 2004/05 (data from HORTEX).

50. The IEG mission addressed a number of questions relating to this export market breakthrough to various actors in the sector. What would have happened without the promotional and facilitating role played by HORTEX? To what extent was HORTEX needed to bring about this breakthrough? Could the Government have played the promotional and facilitating role? Could the market breakthrough have been achieved naturally through Bangladesh's private sector? Could Bangladesh have attracted a major international company to invest in horticultural development? The first exporter – BRAC – commented that it had now acquired the necessary expertise to market horticultural exports without the support of HORTEX. BRAC felt that the production and processing side for horticultural exports were HORTEX's strengths, but the marketing expertise of HORTEX could be further strengthened. However, BRAC acknowledged the initial supporting role which HORTEX played in export marketing. In fact, BRAC said that it would not have attempted to enter the export market if HORTEX had not urged it and helped it to do so.

51. A rapidly growing private firm called EURASIA, which exports frozen produce primarily to the U.K., provided a more current assessment of HORTEX. After a first export test run in January 2003, EURASIA has since developed an array of frozen goods under its own logo. Its exports are growing rapidly, reaching 77 tons in the last quarter of 2004, and 97 tons in the first quarter of 2005. EURASIA gave a strongly positive assessment of HORTEX, which had provided technical advice, leased out a freezer van, brought in an international consultant on freezing techniques, helped in training contract farmers, and advised on brand naming and packaging. The IEG mission concludes that HORTEX was needed to help break the considerable barriers to entry in the high-quality export market, and that it is continuing to play a useful role in this still "infant industry"[18]

52. **The agricultural extension component.** Supporting the implementation of the Government's New Agricultural Extension Policy (NAEP) was the core of the project's second objective and component. The Government saw the ASIRP as a continuation of the Agricultural Support Services Project (ASSP), which had helped start implementing the NAEP towards the end of the project.[19] The ASIRP funded a scaling-up of NAEP, which the

18. Nevertheless, the degree to which HORTEX has facilitated the recent spectacular growth of export horticulture should not be overstated. New exporters are entering the market and HORTEX's contribution to this is difficult to ascertain.

19. ASSP's important contribution to strengthening agricultural extension was to move away from the former "training and visit system" (an approach that had been found to have only modest impact and with high extension staff needs) by introducing a demand-based system. ASIRP further developed the NAEP approach including moving the community involvement process further, and introducing the partnership program. A detailed review of ASSP was made by IEG in a PPAR issued in May 2003.

Government and the Bank viewed as a paradigm shift from the old way of doing business. In contrast with traditional approaches, the NAEP emphasized agricultural services partnerships between DAE and other actors (NGOs, the private sector, other government departments, academia, and others). The project also emphasized demand-led, bottom-up approaches, stakeholder involvement and innovations. The partnership programs were to introduce and promote agricultural development activities and investments through grant financing at three levels: upazila (local governments), district, and national.

53. The unanimous view in the Government was that the national and district partnerships were mostly unsuccessful. There were 19 national level partnerships (all funded by DFID, UK) and 87 district level partnerships, funded by both DFID and the Bank. A possible reason for their disappointing performance was that they were too remote from the field, though the short duration of the project hardly gave much chance for successful introduction.[20] By contrast, the mission found enthusiastic views regarding the upazila partnership program. The mission also found positive feedback in its more limited encounters with farmers and NGO field staff. Some 6860 upazila-level partnerships, spread over 460 upazilas, were established during the project period – an impressive achievement in only 3½ years (no physical target was provided at appraisal). ASIRP also supported other DAE extension activities: for instance, DAE reports that they organized nearly 300,000 demonstrations and 110,000 field days, and that some 780,000 farmers received training.

54. However, the mission was not able to assess the quality and impact of the upazila partnership program and its supporting activities, because data on outcomes is not available. Data on the number of partnerships and the types of partnerships are available, but no qualitative assessment (yields, incomes, etc.). This is a surprising gap, especially for a pioneering project (and a LIL) where understanding the outcome of pilot actions is essential. Furthermore, the PPAR of ASSP had specifically commented on exactly the same need.[21] In this situation, any conclusions on efficacy represents speculation, though the mission's general sense from discussions in the field is that the program has had a positive impact.

55. In meetings with DAE field staff in Bogra and Rajshahi districts, the staff were all enthusiastic about the upazila program. A farmer group that the mission met felt that the regularity of visits and the quality of DAE's agricultural extension had improved considerably in the last several years (though the group was less positive regarding a partner NGO who "came and promised, and then never came again"). DAE field and HQ staff advised that the more common situation was that the partnerships had improved outcomes because they used the comparative advantage of each party: the DAE on technical matters and NGOs on field outreach.[22]

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20. National and district level partnerships are not discussed here, though, based on the Government's frank assessment, it is assumed that they failed. Far more important are the local partnerships, on which the NAEP and ASIRP primarily concentrated.

21. "The extent to which the objective of increasing productivity was met and is attributable to the project is uncertain due to limited outcome data." (ASSP PPAR para 2.5)

22. DAE also felt that partnerships with other government departments had been much weaker than the NGO partnerships, though there were several exceptions mentioned. The view was that the Government should provide clear instructions to other government departments that they should join and promote partnership activities.

56. A key objective of the project was to promote technological innovation. While the horticultural component clearly did, DAE activities cannot be assessed with confidence, given the lack of data. The ICR had observed that technological innovation was not substantial as the community-level sub-projects primarily supported already established development activities. The IEG mission also gained this impression. On the other hand, innovation in agricultural extension processes, which is very important to the future of Bangladesh's agricultural extension, appears to have been substantial. For instance, DAE's completion report cites a number of approaches that were experimented with: a farmer group approach, integrated extension approaches, and farmer-led extension. Such testing is important to develop the most cost-effective extension system, but again, despite advice provided during the PPAR evaluation of ASSP, data on the relative costs and effectiveness of the different extension approaches was not collected.

57. In summary, while there is vibrant enthusiasm within DAE concerning the upazila partnerships and their outcomes, and feedback to the mission from other sources was generally positive,[23] the efficacy of the second objective cannot be reliably assessed. Noting the probability that the program's activities had only limited impact in supporting technological innovations, and the need for due caution when outcomes are not reliably known, the efficacy of the second objective cannot be rated more than **modest**.[24]

58. **The small-scale pilot trials component**. Of the three pilot programs, the on-farm water management pilot in six villages and the soil testing pilots in 27 upazilas demonstrated positive results and were at a sufficient scale to provide the intended demonstration and learning. No productivity indicators were presented to the mission, but positive impacts for both programs was noted by an independent FAO evaluation team and were corroborated by the FAO Bangladesh representative. The DAE is strongly committed to these two programs; the mission was informed that both the water management and the soil testing programs have been continued after the project, within DAE's financial resources, and that the DAE had requested further government funding and possible external assistance. But, as with component 2, data on outcomes were not provided to the mission. The third pilot program – crop yield and weather forecasting to help farmers assess weather-related consequences on

23. Feedback was generally oral. Written qualitative data is very scarce, but the following comment in DAE's ASIRP Completion Report may be encouraging. On page 34, the Completion Report mentions a study by Helen Keller International (September 1998) of the impact of homestead gardens, presumably established under ASIRP's predecessor project, ASSP. The beneficiaries' daily intake of vegetables increased from 150gm/capita/day to 243gm/capita/day. If similar impacts were achieved under ASIRP this would be a considerable enhancement in welfare.

24. It is unfortunate that DAE and the Bank team did not consider commissioning an independent study of the DAE extension component. The value of doing this is demonstrated by the SDPP, which commissioned the Bangladesh Institute of Development Studies (BIDS) to review the project including substantial data collection and a sample survey. This has enabled a much more reliable assessment of the SDPP's outcome. In the case of DAE the need for such a study was even more important as the SF and NGO's already had substantial basic data from the project participants. The omission of a study for the DAE component, and of an effective M&E capacity, was despite strong recommendations in the ASSP's PPAR on the need for monitoring performance of project activities.

growing conditions and market prices – did not succeed and was abandoned.[25] The efficacy of the third objective is rated **modest**.

59. Components 1 (HORTEX) and 2 (DAE extension) were highly relevant as complementary pillars promoting Bangladesh's strategic need to increase agricultural productivity, growth and incomes. Adding the small third component may not have been judicious. While largely successful, the third component did not add much to the two core thrusts under the first two components, which were already highly demanding. The third component appears to have required a disproportionate amount of institutional resources to design and implement, both for the Government and for the Bank/FAO. The mission's subjective impression from discussions with DAE and FAO is that this may have reduced the attention provided to the first two components.[26] It might have been better to have omitted the third component from the project, while suggesting that its undoubtedly worthy activities be candidates for financing by other agencies.

60. The project's overall efficacy is based primarily on its two major components. Horticultural exports developed substantially, but the outcome of the agricultural extension component cannot be reliably evaluated due to the paucity of impact data. Based on feedback provided to the mission from an array of stakeholders, the impact of the DAE component is also expected to have been positive, but, without data, a rating of modest is assumed as there is no basis for assuming a higher efficacy. Overall, the project's efficacy is rated **modest**.

EFFICIENCY

61. All three components were implemented within appraisal estimates of cost. The HORTEX component exceeded the project's export objectives. HORTEX staffing is commendably lean (six professional staff). The viability of quality-market horticultural exports is evidenced by the private sector's expansion in this market. The physical achievement of the DAE component (in terms of the number of upazila partnerships, demonstrations, farmer training, etc) was substantial, and the DAE did well to implement such a large program in only 3½ years, even though the outcomes and impacts can only be conjectured from the feedback provided to the mission. Likewise, the physical implementation of the third component was good given the short project period. Overall project efficiency is rated **substantial.**

62. The short, 3½ year implementation period of the ASIRP, without any extension of the original closing date, reduced both efficacy and efficiency. This short period provided little time for the qualitative aspects of implementation, and still less for adjustments and learning. Both HORTEX and DAE commented strongly on this. HORTEX emphasized to the IEG mission the length of time required, and the capacity enhancement and investment needed by a firm for successful entry into the export market, and for its own capacity

25. The third pilot encountered difficulties in obtaining cooperation of a number of ministries that needed to be involved, was overly sophisticated and had limited post-project follow on activities.

26. It is interesting to note the space devoted to the third component in various project documents. The project description in the appraisal report (Annex 2) has over 7 pages on the third component compared to less than 4 pages on the first and second components combined. In the section on the achievement of project objectives in DAE's Completion Report, discussion of the third component is twice as long as for the second component.

development. The DAE compared ASIRP with its preceding ASSP, which had a 9 ½ year implementation period. The IEG mission agrees with these views. Particularly for a project which is experimental and pioneering in nature, there is need for enough time to develop and test the new approaches and to learn and adapt as experience is gained – in short, to enable attainment of the objectives for which Learning and Innovation Loans are intended. Although the project has resulted in significant learning and innovation, this would have been commensurately greater with a longer time-frame, or, alternatively, with a follow-on project.

OVERALL PROJECT OUTCOME

63. The project was highly relevant to stepping up agricultural productivity, Bangladesh's paramount need. The project was implemented efficiently, within appraisal estimated costs and at impressive speed given the very short project period. However, efficacy was modest. While the HORTEX component surpassed its objectives, data on the qualitative achievements of the agricultural extension component are not available and indications are that most of the upazila-level partnerships promoted commonly used technologies rather than innovations. The national and district partnership programs performed weakly and the crop and weather forecasting pilot in Component 3 was abandoned. The outcome is rated **moderately satisfactory** compared with satisfactory at the ICR stage and unsatisfactory in the ICR Review. The higher rating in the PPAR than in the ICR Review is because greater weight has been placed on the relevance of the project to Bangladesh's strategic priorities, and because horticultural exports – one of the main objectives of the project – have grown substantially since project closure.

INSTITUTIONAL DEVELOPMENT IMPACT

64. HORTEX has developed broad practical experience in production and marketing for export and its services are being used by the export industry, indicating their utility. The proliferation of exporting firms and exports, from very little experience or activity at the beginning of the project, represents strong capacity building in the private sector, in which HORTEX has played a facilitating role. The review of HORTEX's most recent reports, and the mission's discussions with HORTEX and a major exporting firm, indicate that institutional development has been positive.[27] Taking into consideration both HORTEX itself, and, perhaps more importantly, the rapid development of private institutions (firms and the marketing chains they have established), institutional development for this component was **high**.

65. DAE's institutional capacity has also increased. A new and radically different extension approach has been introduced under the second component, and the large size of the program enabled learning by doing for many DAE staff and upazilas. Senior DAE staff commented to the mission that they felt an important institutional achievement was the

27. HORTEX's quarterly newsletter for April-June 2005 reports HORTEX services to four firms for production plans; four firms for marketing plans; 15 firms/NGOs in packaging development and for two firms with trial shipments. Additionally, various general services were mentioned to the mission by HORTEX, including market intelligence and workshops. HORTEX's recent newsletters indicate up-to-date relevance, such as a discussion of the new (2005) EU regulations on import requirements. Further development of marketing expertise may be one area for additional strengthening.

beginning of a change in the culture of DAE field staff. In place of the former top-down, directive approach, a demand-driven, client-focused, and partnership modality had begun to develop. This change was considered a "new era" by senior DAE management. Implementation of the second component was fully integrated within the existing structure of DAE, thus developing the capacities of staff and the institution as a whole. The Upazila Agricultural Extension Coordination Committees (UAECCs), which are the core decision makers at local levels, and the more successful partnerships between government and civil society (mostly NGOs) are also institutions. These developments are highly positive, especially given the scale of the DAE component. However, the mission was advised by DAE that the main institutions - the DAE-NGO partnerships – risked declining without further project support, indicating that they were not as robust as desirable. Institutional development for DAE and its partnerships is thus rated as **substantial** rather than high as in the case of the horticultural component where the marketing chains are likely to be more self-sustaining.

66. Overall, the project's institutional development impact was **substantial,**[28] compared to the modest assessments at the ICR and ICR Review stages. The upgrade is due to the very positive developments in horticultural exports since the project closed, and because the PPAR takes a broader view of institutional development, going beyond the core agencies to the affected institutions themselves: that is, considering the establishment and enhanced capacity of private firms and their marketing chains in the horticultural component; the qualitative improvements in DAE field staff attitudes;[29] the strengthened NGO capabilities; and the establishment of DAE-NGO partnerships in the DAE component.

SUSTAINABILITY

67. The sustainability of the horticultural export component is rated **likely.** HORTEX's capacity has increased over the project period and its services are in demand. More significantly, the rapid growth in horticultural exports during and after the project period, and the entry of new exporting firms shows that horticultural exports are profitable. Even if HORTEX were to fail, the private sector is now sufficiently well developed to continue on its own.

68. Whether HORTEX could become financially independent was a contentious issue. The Bank's objective at appraisal was that HORTEX should become self-financing over time through charging for its services. The timing was to be "at least by the second year." IEG considers the objective desirable, but agrees with the Government that the targeted timing was unrealistic. Even by the second year, there was hardly any exported produce on which to charge fees.[30] However, with the passage of time, financial self-sufficiency through support

28. The institutional development achievements of the third project objective are not rated as the pilot programs were not intended to have particular institutional impact.

29. The significance of an important shift in institutional approach was also recognized as substantial in the PPAR for ASSP. In the case of ASSP, the traditional Training and Visit extension system was changed to a more demand-driven approach, providing the base for the further changes introduced under ASIRP.

30. The ICR commented on the lack of realism and stated that "it is not likely that a strong exporter organization will emerge soon since Bangladesh is still at a nascent stage of horticultural export development." The government, in HORTEX's part of its ASIRP Completion Report was even more categorical: "Regarding

from the horticulture export industry itself is becoming a more reachable prospect; costs per ton are diminishing.[31] Financial self-sufficiency would assure continuation of the service agency (HORTEX); and continued high responsiveness to client concerns because HORTEX would be fully owned by its stakeholders. No action towards this has yet been taken. It would now be appropriate for HORTEX, together with the horticultural industry, to develop and then implement a plan for HORTEX's financial self-sufficiency.

69. The sustainability of the DAE-managed components is rated **unlikely**. The IEG mission found in all meetings, both in Dhaka and in the field, that the DAE is positively committed to the program. DAE's commitment to the NAEP would likely remain robust if nurtured through continued field activities. However, since the project has closed, the funds available for the program have drastically reduced. The DAE staff in Bogra commented that, with government funds unavailable, the formerly termed "partnerships" between DAE and civil society organizations are now better described as "relationships", although goodwill and communications between them are still good. However, without ongoing activities, even these relationships will likely peter out over time. The DAE's project completion report commented, "The spade work already done so far by the project could now be translated into action, if only such an extension is possible; as otherwise all our past efforts and investments are in vain." The IEG mission agrees with this assessment. With continued funding and based on the commitment of DAE and its partners, sustainability would be likely. But, since such funding has not materialized, sustainability of the second component is rated unlikely. The sustainability of the third component is also rated unlikely. While government funds have supported the first two pilots on a limited scale, continued funding is not assured.

70. Even though the sustainability of the Hortex component is rated likely, the unlikely ratings for the DAE-managed components, which comprise some 70 percent of project costs, results in an overall sustainability rating of **unlikely**. This compares with ratings of unlikely and non-evaluable at the ICR and ICR Review stages, respectively.

BANK AND BORROWER PERFORMANCE

71. There were a number of weaknesses in the Bank's performance such as the absence of a link between the HORTEX and DAE components, minimal design and weak performance of the monitoring and evaluation activities for the DAE components, unrealistic assumptions about the time needed for HORTEX to become self-financing, and the very short (3 ½ years) time period for the project.

72. However, the Bank performed strongly in key strategic areas. The decision to do such a project in the first place recognized the pivotal relevance of enhancing productivity

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service charge, the culture for payment for technical and advisory services in Bangladesh is yet to be developed as beneficiaries feel that it is the responsibility of the promotional and supporting organization to provide such services free of costs."

31. As export levels have built up, HORTEX's costs per ton of exports have declined. Hence, the financial contributions to HORTEX per ton of exports would become quite small. HORTEX's 2004 Annual Report states that HORTEX's 2004 operating costs were 5.7 million Taka, or about US$95,000, compared to the same year's export levels of 1206 tons. This represents an annual HORTEX cost per kg (excluding depreciation) of five Taka or eight US cents. Such costs will fall progressively as exports expand.

and value added in the agriculture sector. The first and second components had strong potential for contributing to these and supported thrusts with a high degree of government ownership. The Bank stayed with the agricultural sector despite mistakes and shortfalls in the performance of DAE in ASIRP's predecessor projects. This included staying with HORTEX in spite of a very weak performance by HORTEX in ASSP. ASIRP was a highly relevant project, and continuing to support and upgrade the programs started under earlier projects represented not just tenacity but fundamental development sense. There were high risks: for instance, DAE's partnership approach had not been significantly tested. The choice of a LIL was a good decision in these circumstances. Going ahead in spite of these risks appears to have paid off (although data to confirm the impact of the DAE program is needed). The Bank's overall performance in recognizing one of the sector's paramount needs, in designing a project to meet these needs, and in contributing to the overall success of the project, over-rides the shortcomings noted above. The Bank's performance is thus rated **satisfactory,** an upgrade from the unsatisfactory ratings assessed at ICR and ICR Review stage. The primary reason for this upgrade is the greater recognition of the strategic factors noted above.

73. The performance of the Borrower shared a number of weaknesses with the Bank, and DAE's monitoring and evaluation was very weak. The project steering committee seldom met. The Government could have done more to encourage participation of other government departments in the DAE partnerships. Nevertheless, the Government shared the broad vision noted for the Bank above. Also, the project was implemented quite rapidly after a slow start (disbursements of the Credit reached almost 85 percent). The Government has demonstrated its commitment by supporting the program after project closure, albeit at a much reduced level of activity because of limited funds. Borrower performance is rated **satisfactory**, the same rating as in the ICR and ICR Review.

5. Monitoring & Evaluation & Fiduciary Issues for the Three Projects

M&E Design, Implementation And Utilization

74. The quality of monitoring and evaluation varied considerably among the three projects – from generally strong performance in SDPP to weak M&E in the case of the DAE-managed components of ASIRP.

75. **M&E in project design**. SDPP included a costed M&E component directly linked to the project's development objectives, a log-frame and monitorable indicators, which were precise and measurable. The FRMP's appraisal document integrated M&E in the project description, including the creation of an M&E unit. The PAD also discussed how monitoring capacity would be enhanced, but did not detail the key indicators that the M&E system would be monitoring. The ASIRP's design included an M&E subcomponent in the DAE, but details on what it was to do were limited. Performance indicators were included for the HORTEX component, but were not provided for the DAE components.

76. Some telling comments in ASIRP's appraisal document are the following: "no economic analysis is required as it would be a LIL operation and the project would be supporting the implementation of pilot activities," and "the project … would be testing

strategies." While IEG agrees that the essence of a pilot project is to test proposed or alternative approaches, it is particularly important to measure outcomes and impacts in a pilot project. A Learning and Innovation Loan implies the availability of information in order to learn and assess the utility of the innovations being promoted.[32]

77. **M&E in implementation.** Under the SDPP, the Silk Foundation developed a detailed performance tracking system and obtained data for all the rearers for each production season. The BSRTI measured performance data for different technologies it was testing. At the end of the project an independent agency – the Bangladesh Institute of Development Studies (BIDS) – was commissioned to do a survey of the project's impact. BIDS sample data was broadly consistent with SF data. BIDS undertook a thorough analysis of the project and its impact, and the findings add considerably to the information about SDPP.

78. The FRMP partially achieved its M&E objectives. A Management Planning Division was established in the Forestry Department, an M&E system was developed and data was collected, but delays were encountered in updating the forest management plans. The Conservator of Forests advised the mission that both institutional capacity and the data collection system needed further strengthening. ASIRP's HORTEX component monitored exports quite closely and reported data regularly, but information on M&E activities under the DAE-managed components is virtually absent.

79. **M&E utilization.** For SDPP, the SF has comparative performance data by NGO. It has readily available data on different productivity parameters, thereby enabling monitoring of sector performance over time and by technology system. For FRMP, the M&E data were collated and used by central management. However, these could have been integrated more with other data bases. Also, the IEG mission found that while M&E data were going from the field to Forestry Department headquarters, there was limited feedback to the field after the central analysis.

80. For ASIRP, HORTEX used the monitoring data it collected to assess progress, and was also able to demonstrate how it performed against its monitorable indicators. HORTEX is still collecting data and distributing these in quarterly newsletters. DAE collected data by activity (number of partnerships, training sessions, etc.), but, as noted earlier, the mission was unable to find outcome data such as yields and incomes. Therefore, it is not possible to confirm the achievements of the DAE components, nor to determine which technical packages, extension approaches and partnerships were successful and why.

OTHER ISSUES (SAFEGUARDS, FIDUCIARY, UNINTENDED IMPACTS – POSITIVE AND NEGATIVE

81. No fiduciary issues have been found for the three projects. Safeguard issues were either negligible or positive. The SDPP primarily benefited poor women. The planting of coastal mangroves under the FRPP provided increased security against hurricanes, and the

32. Concerning an economic analysis, an approach that could have been used would have been an ERR based on a model using the outcome data that should have been measured. Domestic Resource Costs could also have been calculated, as done under the SDPP.

preparation of forest and national park management plans set the stage for improved environmental conservation.

6. Lessons and Considerations for Future Development

82. Four specific lessons regarding the pro-poor growth challenge, and a final lesson related to the Bank's strategy for Bangladesh's rural sector have emerged from this review. The first four lessons are closely interlinked, and, together, provide two important observations. First, the projects illustrate practical ways to emphasize growth and social equity at the same time, and even demonstrating how improving equity can also improve productivity. Second, actions across the four areas can be mutually reinforcing. Pro-poor and gender-inclusive agricultural growth can be further stimulated when more than one action area is tackled simultaneously.

(1) Dedicated focus on enhancing productivity pays off. Breakthroughs in productivity can be triggered by making a quantum improvement in productivity a major goal and specifically addressing this in the project's design. Without designing the project with this in mind, productivity breakthroughs may not occur.

83. The SDPP and the HORTEX component of the ASIRP placed their major focus on stepped up productivity, and achieved the breakthroughs they aimed for. The FRMP did not emphasize productivity enhancement, and no major gains in the productivity of the forestry sector occurred.

84. The achievements reflected the emphasis that each project placed on productivity. The very essence of SDPP was to bring about a quantum leap in the silk sector's productivity to enable Bangladesh to be more competitive in relation to the international market. Nearly all of the SDPP's monitorable indicators measured productivity. Likewise, the major objective of the horticultural export component of ASIRP was to help Bangladeshi exporters to break through the barriers to entry into the much higher-value international market, compared to the lower-value (and lower-productivity) of the domestic market. The FRMP was more in the mold of traditional Bank projects. Its design and impact was on increasing the number of hectares under cultivated forests, coastal protection, environmental management and institutional improvement. It also had a small research component, as often found in a Bank rural project. While the FRMP successfully achieved its objectives, a major jump in productivity was not its central purpose and was not achieved.[33]

85. The SDPP and HORTEX achieved their breakthroughs through a combination of institutional as well as technological innovations. The enhancement of silk sector productivity was primarily through introducing technical improvements, but driving this was the new Silk Foundation and the NGO sector. The export breakthrough for horticultural products involved substantial new technologies for Bangladesh in growing, grading, packaging and transporting of produce, but it was pioneered and then catalyzed through an institution, HORTEX, designed and dedicated exclusively for this purpose.

33. The reference to "improve the productivity" in FRMP's development objectives referred to the expansion of forest plantations, not to an improvement in productivity per hectare.

86. The SDPP and HORTEX successes might, however, be exceptions to the more typical situation found in Bangladesh's agricultural sector, where technical knowledge to enhance productivity may be limited. The IEG mission was informed that research was a small part of government's expenditure in agriculture – only about 0.2 percent of agricultural GDP.[34] A revolution in agricultural productivity is likely to need a much stronger technical base than Bangladesh's relatively small research program can currently provide.[35]

(2) Socially inclusive rural development need not constrain rapid agricultural growth. Project design features that target benefits for the poor and women may even enhance agricultural growth.

87. Over 80 percent of the SDPP participants were poor women, and they showed greater interest and care in rearing and reeling–hence in adopting sericulture and achieving higher productivity–than wealthier households. Poor women were the primary target of the SDPP's NGO extension services. Under the FRMP's community forestry program, higher productivity, sustainability and social inclusion were found to be mutually complementary to each other. Tree survival and groundcover significantly increased and yields will likely be higher, and poor families and women were the primary beneficiaries. The key factor leading to increased productivity and sustainability was the switch to community management by the socially disadvantaged, who took greater care of the plantations than government or villagers with higher incomes..

(3) Government-civil society partnerships can enable large gains in development capacity, both for social inclusion and for agricultural growth.

88. Bangladesh is known for particularly large inefficiencies in the public sector, and in governance generally. By contrast, the country is rich in its non-government sector, particularly in its NGOs. Two of the projects reviewed, the SDPP and the ASIRP, indicate that partnerships between government and civil society can be a major source of increased vitality and productivity in Bangladesh's rural sector.

89. Promotion of the silk sector is based on a partnership between the Silk Foundation (technical, promotional and seed production) and the NGO sector, which does most of the extension and field support, as well as seed production. The commercial private sector is fast developing as an additional actor in reeling, weaving, and garment manufacture. The Silk Foundation's technical skills are complemented by the NGO sector's far wider reach and greater capacity to provide extension services skilled in social outreach. Under the horticultural export component of ASIRP, horticultural exports were promoted through partner activities between HORTEX and the private sector.[36] Under the DAE component of ASIRP, the partnerships between DAE and NGOs at the upazila level became the centerpiece of the agricultural extension program. DAE emphasized to the IEG mission that this

34. Source: WB Report No. 34543-BD; Bangladesh: Revitalizing the Agricultural Technology System, November 30, 2005.

35 Global evidence has indicated that returns to research are higher than for any other investment in agriculture.

36. The partnership for the first export was with an NGO. Since then, the commercial private sector has become the dominant source of horticultural exports.

approach could greatly increase the effectiveness of agricultural extension – the DAE providing its technical skills, but others, especially the NGO sector, being better in field outreach.

90. By contrast, the FRMP project was implemented mostly by the Forestry Department, indicating that government implementation without partners can also be successful, at least for forestry. However, the pilot activities in community forestry all involve the FD working with small NGOs, the former mainly in technical areas and the latter in local-level social support. The initial experience with the FD-NGO partnerships appears promising. [37]

(4) To enhance benefits for women and the poor, project formulation needs the systematic integration of measures to achieve this. Measures to achieve such social objectives need to be organically integrated in the project: i.e., specifically featured in the project's design, costing, institutional arrangements, staffing, management processes, the logical framework and monitoring.

91. All three projects took some positive steps to target women and the poor. These actions, which are typical of other Bank projects, are noted immediately below, but they were more in the nature of "add-ons" to project implementation rather than being systematically integrated into the projects. A more systematic approach could likely have achieved more.

92. With its labor-intensive and cottage-based activities, the silk sector is pre-eminent in including women and the poor. Silk rearing and reeling provide regular income and can be done part time and on marginal farms or by the landless. The IEG mission also observed a high proportion of women employed in weaving and garment manufacture. Additionally, the NGO extension activities in the SDPP were specifically targeted to women and the poor. Based on mission discussions in the field, perhaps over 95 percent of beneficiaries were poor, of which over 85 percent were women.

93. Concerning the ASIRP, DAE said that extension workers were asked to target women and poor households. The mission was also told that in choosing communities for sub-project grants, the local (upazila) committees favored communities with a high proportion of women and the poor, but there is no data relative to this. Assuming that the sub-projects did have some success in social inclusion, this would have been important in countering the natural societal tendency for minority groups to be left behind. It is possible that the gender and poverty impact of the ASIRP would have been quite modest without the project's efforts, since the mission visits found the usual tendency for men and wealthier individuals to have the primary influence on village-level decision making.

94. The FRMP provided the most striking example of gender and poverty alleviation outcomes influenced by project actions. In the mission's visits to several community-managed plantations, the great majority of the beneficiaries were women and the poor. As with the other two projects, the primary reason was that selection of participants by the Forestry Department and local committees strongly emphasized gender and poverty criteria.

37. There is also positive global evidence where forestry departments have worked with NGOs.; for instance, in India and Nepal.

This was appropriate since international experience indicates that forestry development can have negative social impacts unless there are specific measures for social inclusion. The development of government-managed plantations commensurately reduces the number of hectares under traditional forests. Even when degraded, such lands provide for traditional forest-based activities important for the livelihoods of women and the poor.[38]

95. However, none of the projects employed a systematic approach to social inclusion, which would likely have enhanced gender and poverty alleviation outcomes. The IEG mission noticed the following gaps. First, the capacity to plan, implement and monitor the projects' gender and poverty aspects was limited in both the government and Bank task teams. The mission did not encounter any social specialists in the project agencies, and data in the ICRs indicate that the Bank team for the FRMP only involved a social specialist in project preparation, and for the ASIRP, only in supervision. Second, none of the projects had a gender and poverty alleviation plan, which should also have been integrated into the project's detailed design. Third, there were no monitorable indicators on poverty and gender impacts in the log frames, and project data on outcomes was limited. Hence the key features for systematically enhancing benefits for women and alleviating poverty were largely absent.[39]

(5) The Bank's rural project portfolio in Bangladesh would merit scaling-up, prioritizing, a longer-term program approach, and a better strategic framework.

96. The Bank's lending to Bangladesh's rural sector has declined significantly over the last 5-10 years. (See the complete listing of Bank projects to Bangladesh in Annex C.) Out of 25 ongoing projects in the Bangladesh portfolio as of February 2006, only one project is rural (2006 CAS, Annex B8). And only one rural project was approved during the last five years – FY01 to FY05[40] – compared to 23 approved projects in the overall Bangladesh lending program. None of the three projects reviewed in this PPAR had follow-on projects.

97. This situation contrasts sharply with the messages expressed in Bank and Government policy documents. The government's 2005 PRSP sees agriculture as "the key driver of pro-poor growth". The Bank has also emphasized the importance of the rural sector and highlighted this in each of the last three CASs (1998, 2001 and 2006). The 1998 CAS comments that "faster agricultural growth and rural development are critical in a country where more than 90 percent of the poor live in rural areas." It also comments that "several

38. Social risks also need to be tackled in project design and implementation. In mission discussions with forestry community groups, a vulnerability of the extreme poor to pressures by locally influential persons (to sell forest rights at well below market value for instance) appeared to be a risk. Adaptations to reduce this risk might be considered, such as strengthening community-level institutions and making individual decisions subject to review by the whole community.

39. In this situation, even understanding the social impact of project activities is difficult, and making adjustments during project implementation has little basis on which to plan. In the appraisal reports and some government documents, there was also a tendency to highlight the expected gender and poverty alleviation impacts in the main text, but with limited further reference and implementation details in the annexes.

40. This was the Microfinance project (approved in FY01) which is partly rural. Two other projects with impact on the rural sector in the FY01 to FY05 period were the Rural Electricity-Renewable Energy Development Project (FY02) and the Rural Transport Improvement Project (FY03).

[five] strategic priorities provide the framework for our assistance," of which agriculture was one. Since three of these priorities were macro or cross-cutting (macroeconomic management, private sector development, and public sector management), agriculture was one of only two sectors, along with human development, that were singled out. The 2001 CAS considered rural development as one of three priorities for pro-poor growth. While the 2006 CAS is less explicit in highlighting rural development, the first of the CAS's two pillars ("improving the investment climate") includes agriculture – along with infrastructure, water resources management and information and communications technology – in its listing of four sectors "critical to pro-poor growth". Yet the priority placed on agriculture in these policy statements does not appear to have been translated into the lending program. This situation appears likely to continue, since the 2006 CAS has only one rural development project – the proposed National Agricultural Technology Project – among the 24 projects listed in the proposed lending program for 2006 to 2009 (2006 CAS, Annex B3). It should, however be noted that there are several past and proposed projects that support rural development more broadly.[41] While these projects have potentially significant impacts on the rural sector, none of these projects directly tackles the rural sector's need for a major shift in agricultural productivity and pro-poor growth. For this, additional direct engagement in agriculture, water and forestry is needed.

98. The IEG mission frequently heard the view that rural sector lending is more difficult and its results more disappointing than in other sectors. The three projects reviewed in this PPAR do not support this view. All three projects were worthwhile, with outcomes at least moderately satisfactory. The FRMP achieved all its physical objectives, helped improve institutional capacity, developed environmental management plans for Bangladesh's nature reserves, helped develop coastal mangroves to improve protection against storm surges and started successful piloting of community-based forestry. The SDPP significantly raised productivity in the silk sector, which had a positive impact on gender inclusion and poverty alleviation. The ASIRP pioneered and catalyzed a breakthrough in horticultural exports, and the agricultural extension part of the project may also have had a significant impact. With sensible designs that play to Bangladesh's strengths (such as the NGO sector), with the introduction of technological and institutional innovations as needed, and with strong implementation support, rural projects in Bangladesh can succeed

99. In fact, the average performance of the three PPAR projects is not substantially different from the aggregate situation across the Bank's entire Bangladesh portfolio. Excluding the PPAR projects, nine of the 17 projects completed between the beginning of 2000 and end of February 2006 had a satisfactory outcome, six were moderately satisfactory, one moderately unsatisfactory, and one unsatisfactory.

100. The Bank should not downplay the importance of relevance. If development of the rural sector is a strategic priority, it does not make sense to neglect it. The question of why support for rural development has declined, is appropriate to pose across the board; not only

41. The Rural Department of the Bank's South Asia Region has commented on an earlier draft of the PPAR that it also envisages other operations in rural livelihoods, water management, fisheries and land management. The Rural Department has also made reference to other proposed or ongoing projects supporting rural development such as rural electrification, rural finance, and local governance.

to the Bank, but also to other development agencies and to the government.[42] It is better for the Bank to support a highly relevant development thrust, each project having a moderately successful outcome, than to support areas of less relevance because these are easier. Not supporting rural development in Bangladesh is walking away from one of the country's highest priorities.

101. Bank lending to the rural sector has also suffered from a lack of continuity in recent years. This was not so in the past. Both the FRMP and the ASIRP followed previous projects in their respective sectors, the Bank having supported two projects in forestry and three projects in agricultural research and extension prior to the FRMP and ASIRP. The ASIRP followed on almost immediately from the Agricultural Support Services Project, which had started pioneering the new extension approaches and had provided initial support to HORTEX. None of the three projects reviewed in this PPAR had follow-on Bank support, even though two projects in particular – SDPP and ASIRP – supported programs which required a longer time period to become fully established.

102. The lack of continuity in lending has been compounded by unduly short project durations: The ASIRP had only a 3½ year implementation period, and the SDPP 5½ years, which included the establishment of a new agency, the SF, to implement the project. The 9½ years implementation period for FRMP was more realistic and about right for the large program that the FRMP supported (though this unusually long implementation period could have been broken down into two shorter projects). This more realistic time frame has probably contributed to the higher outcome and sustainability ratings for the FRMP relative to the other two projects.

103. The IEG mission noted the particular vulnerability of the ASIRP's agricultural extension component. In field discussions, it was encouraging to find, four years after project closure, enthusiasm still present among DAE staff for the new extension approach introduced under the ASIRP. However, as one district officer expressed it, "we still have the partnerships, but, since there is no money, nothing for the partners to do." The ASIRP *began* a new extension program, following the initial steps that were taken in the later years of the ASSP, but, inevitably, the program was far from fully established when the 3½ year project ended. Stopping Bank lending at that stage was unfortunate, since a strong research and extension program is a paramount need for accelerated agricultural growth in Bangladesh. The FRMP, SDPP and HORTEX programs, although less urgently in need of continued nurturing, would also have benefited from continued technical and financial support.

104. The sparse rural sector work in the last decade may have contributed to the Bank's limited attention to Bangladesh's rural sector. The situation is better now; papers on the rural non-farm sector and on agricultural technology were issued respectively in 2004 and 2005, water management has also been reviewed, and there are three ongoing studies – on agribusiness, rural finance, and a public sector expenditure review. Work on an agricultural master plan has also been done, in partnership with the Government. However, this impressive array of activity appears to be pieces of a pie rather than a comprehensive rural

42. Resident Bank staff told the IEG mission that they had observed a decline in rural lending by most of the donor community. And the Government does not always apply sufficient funds to the areas it has prioritized; for instance, the much reduced funding of the agricultural extension program after ASIRP closed.

strategy. What still appears missing is a thorough sector analysis with sufficient depth and breadth to prepare an overall rural sector strategy. This could also be used to engage the Government and the donor community in a strategic and broad-ranging dialogue on sector policy and lending.

Annex A. Basic Data Sheet

FOREST RESOURCES MANAGEMENT PROJECT (CREDIT 23970-BD)

Key Project Data *(amounts in US$ million)*

	Appraisal estimate	*Actual or current estimate*	*Actual as % of appraisal estimate*
IDA Credit	49.6	45.9	92.5
Government	9.1	7.4	81.3
Total project costs	58.7	53.3	91.0

Cumulative Estimated and Actual Disbursements

	FY93	*FY94*	*FY95*	*FY96*	*FY97*	*FY98*	*FY99*	*FY00*	*FY01*	*FY02*	*FY03*
Appraisal estimate (US$M)	6.2	14.1	23.8	30.7	37.5	43.3	48.6	49.6	49.6	49.6	49.6
Actual (US$M)	3.6	7.9	13.3	21.0	27.5	32.6	36.0	39.0	43.8	46.6	46.6
Actual as % of appraisal	58.0	56.0	55.9	68.4	73.3	75.3	74.0	78.6	88.3	94.0	94.0
Date of final disbursement:											

Project Dates

	Original	*Actual*
Initiating memorandum		10/28/1991
Appraisal		11/11/1991
Board approval		6/23/1992
Effectiveness	10/06/1992	10/06/1992
Closing date	12/31/2000	12/31/2001

Staff Inputs

	No. of Staff Weeks	*US$'000*
Identification, Preparation, Appraisal and Negotiations	164	251
Supervision	48	119
ICR	214	381
Total	9	42 **

**(FAO-CP)

Mission Data

	Date (month/year)	*No. of persons*	*Specializations represented*	*Implementation progress*	*Development objectives*
Identification/ Preparation	4/1991	14	EC (2), PA, LP, SC, SO (2), ETC, FS, FIS, RE, NCS, WLB, EIS		
Appraisal/ Negotiations	11/1991	5	EC (2), FS, SO, CE		
Supervision 1	12/1992	6	AG, EC, DO, PS, FS, CDS	S	S
Supervision 2	7/1993	6	AG, EC, DO, PS, FS, CDS	U	U
Supervision 3	9/1993	4	FS, PS, DO, CDS	S	S
Supervision 4	5/1994	5	AG, DO, PS, FS, NGOS	S	S
Supervision 5	12/1994	6	PS, DS, FS, FS(consultant), CDS	S	S
Supervision 6	7/1995	5	AG, DO, PS, FS, NGO	S	S
Supervision 7	8/1996	4	AG, PS, DO, FS	S	S
Supervision 8	4/1997	3	AG, PS, DO	S	S
Supervision 9	11/1997	5	AG (2), PS, DO, FMS	S	S
Supervision 10	5/1998	6	AG (2), PS, FMS (2), DO	S	S
Supervision 11	1/1999	6	AG (2), NGOS, EC, DO, TA	S	S
Supervision 12	6/1999	8	AG (2), PS, DO, FMS, FS, NGOS, EC	S	S
Supervision 13	12/1999	4	AG, PS, DO, TA	S	S
Supervision 14	2/2000	4	AG, PS, DO, TA	S	S
Supervision 15	8/2000	6	AG, PS, DO, FMS, ES (FAO-CP), FME (FAO-CP)	S	S
Supervision 16	4/2001	7	AG (2), PS, DO, FMS, TA, FME (FAO-CP)	S	S
Supervision 17	9/2001	5	AG, EC, PS, DO, FMS	S	S
Completion					
ICR	2/2002	10	Bank Team: AG, EC, FAO-CP Consultants: FS, EC/FA	S	S

Specializations Represented: AG: Agriculturist; DO: Disbursement Officer; PO: Procurement Specialist; FS: Forestry Specialist; NGOS: NGO Representative; ES: Environment Specialist; FMS: Financial Management Specialist; EC: Economist; TA: Team Assistant; FME: Forest Management Expert; FA: Financial Analyst; SO: Sociologist; PA: Project Analyst; LP: Land use Planner; SC: Silviculturist; ETC: Education & Training Consultant

Other Project Data

PRECEDING OPERATIONS

Operation	*Credit no.*	*Amount (US$ million)*	*Board date*
Mangrove Forests Project		11.0	FY80
Second Forestry Project		28.0	FY86

SILK DEVELOPMENT PILOT PROJECT (CREDIT 30040-BD)

Key Project Data *(amounts in US$ million)*

	Appraisal estimate	*Actual or current estimate*	*Actual as % of appraisal estimate*
Total project costs	13.0	6.5	50
Loan amount	11.3	5.9	52
Cancellation		SDR 2.4	

Cumulative Estimated and Actual Disbursements

	FY98	*FY99*	*FY00*	*FY01*	*FY02*	*FY03*	*FY04*
Appraisal estimate (US$M)	1.4	4.4	6.8	8.9	11.2	11.2	11.2
Actual (US$M)	0.5	0.9	1.6	2.6	3.9	5.5	6.0
Actual as % of appraisal	35.7	20.5	23.5	29.2	34.8	49.1	53.6
Date of final disbursement							

Project Dates

	Original	*Actual*
Initiating memorandum		05/15/1995
Appraisal		04/11/1997
Board approval		11/18/1997
Effectiveness	12/05/1997	03/19/1998
Closing date	12/31/2002	6/30/2003

Staff Inputs

	US$'000
Identification, Preparation, Appraisal and Negotiations	n.a.
Supervision	n.a.
ICR	n.a.
Total	n.a.

Staff weeks not available

Mission Data

	Date (month/year)	*No. of persons*	*Specializations represented*	*Implementation Progress*	*Development Objectives*
Identification/ Preparation	07/26/1996				
Appraisal/Negotiations	10/08/1998				
Supervision 1	09/03/998	7	TM, SAG, EC, PO, S, DO, FO	U	S
Supervision 2	03/10/1999	7	TL, SAG, EC, PS, DO, FMS, TA	U	S
Supervision 3	08/19/1999	8	ML, AG, PS, DS, FM, E, TA, S	S	S
Supervision 4	03/06/2000	9	TL, CTL, E, PS, DO, FMS, TA, PM, SE	S	S
Supervision 5	04/12/2001	4	TL, SAG, PS, DO	U	S
Supervision 6	12/01/2001	5	TL, SOP, DO, PA, IDS	U	S
Supervision 7	08/25/2002	5	TTL, PS, DO, IDS, S	S	S
Supervision 8	03/05/2003	6	TM, SFMS, DO, SPS, IDS, SS	S	S
ICR	10/30/2003	4	TM, S, AG, EC		S

Specializations Represented: TM: Task Manager; SAG: Senior Agriculturalist; E: Economist; PO: Procurement Officer; S: Sericulturist; DO: Disbursement Officer; FO: Financial Officer; TL: Task Leader; PS: Procurement Specialist; FMS: Financial Management Specialist; TA: Team Assistant; ML: Mission Leader; AG: Agriculturalist; DS: Disbursement Specialist; FM: Financial Management; EC: Economist; CTL: Co-Task Leader; PM: Portfolio Manager; SE: Sericulture Expert; SOP: Senior Operations Officer; PA: Procurement Analyst; IDS: Institutional Development Specialist; SFMS: Senior Financial Management Specialist; SPS: Senior Procurement Specialist; SS: Sericulture Specialist.

AGRICULTURAL SERVICES INNOVATION AND REFORM PROJECT (CREDIT 32840-BD)

Key Project Data *(amounts in US$ million)*

	Appraisal estimate	*Actual or current estimate*	*Actual as % of appraisal estimate*
IDA Credit	5.00	4.07	81.4
Government	1.97	0.15	7.6
Cofinancing	7.43	0.00	0.0
Total project costs	14.4	4.22	29.3

Cumulative Estimated and Actual Disbursements

	FY00	*FY01*	*FY02*	*FY03*	*FY04*
Appraisal estimate (US$M)	1.4	3.3	4.5	5.0	5.0
Actual (US$M)	1.0	2.5	3.6	4.0	4.0
Actual as % of appraisal	71.4	75.8	80.0	80.0	80.0
Date of final disbursement					

Project Dates

	Original	*Actual*
Initiating memorandum		05/15/1995
Appraisal		04/11/1997
Board approval		11/18/1997
Effectiveness	12/05/1997	03/19/1998
Closing date	12/31/2002	6/30/2003

Staff Input Costs

	No. of Staff Weeks	*US$*
Identification, Preparation, Appraisal and Negotiations	n.a.	n.a.
Supervision	84.7	143,412
ICR	14.60	49,000
Total	99.3	192,412

Mission Data

	Date (month/year)	*No. of persons*	*Specializations represented*	*Implementation progress*	*Development objectives*
Identification/ Preparation	03/20/1998				
Appraisal/Negotiations	11/10/1998				
	07/25/1999	11	TL, SC, ACD, AG, IE, PS, FMS, DO, SOP, FAO		
Supervision 1	05/27/2000	2	AG, IE	S	S
Supervision 2	10/05/2000	13	SAG (2), LE, FMS, PS, DO, SS, TA, PO, WMO, FS, NFM, C	S	S
Supervision 3	12/01/2001	11	TL, SEC, FMS, PA, DO, FS, IS, AES, SDA, SGS, NPO	S	S
Supervision 4	04/07/2002	4	AG, EC, ABS, AG	S	S
Supervision 5	09/30/2002	5	EC, AG, FMS, PS, DO	S	S
ICR	04-06/2003	4	AEC, ABE, AG, EC	U	S

Specializations Represented: TL: Team Leader; SC: Senior Counsel; ACD: Acting Country Director; AG: Agriculturalist; IE: Irrigation Engineer; PS: Procurement Specialist; FMS: Financial Management Specialist; DO: Disbursement Officer; SOP: Senior Operations Officer; FAO: FAO Representative; SAG: Senior Agriculturalist; LEC: Lead Economist; SS: Social Scientist; TA: Team Assistant; PO: Program Officer; WMO: Water Management Officer; FS: First Secretary; NFM: NR Field Manager; C: Consultant; SEC: Senior Economist; PA: Procurement Analyst, IS: Institutional Specialist, AES: Agricultural Extension Specialist: SDA: Social Development Advisor; SGS: Social & General Specialist; NPO: National Professional Officer; ABS: Agri-Business Specialist; EC: Economist; AEC: Agricultural Economist; ABE: Agri-Business Expert.

Other Project Data

PRECEDING OPERATIONS

Operation	*Credit no.*	*Amount (US$ million)*	*Board date*
Agric. Extension II		27.0	FY82
Agricultural Support Services Project		35.0	FY91
Agriculture Research Management		50.0	FY96

Annex B. Project Components And Costs

Project Component	Estimated Costs at Appraisal (US$ millions)	Actual Project Costs (US$ millions)	Actual as Percentage of Appraisal Estimate
FOREST RESOURCES MANAGEMENT PROJECT			
1. Forest Resources Management: preparation of forest management plans and forest resource inventories, strengthening planning capacity and piloting community forest management	8.6	5.9	68
2. Forest Resources Expansion: Establishment of about 60,000 ha of conventional (dry-land) and mangrove forest plantations and maintenance of plantations established under the Second Forestry Project.	29.8	36.4	122
3. Nature Conservation: Preparation of management plans for all national parks and wildlife sanctuaries, and additional planning and small investments related to preservation of the Sundarbans sanctuaries and for soliciting funding from donor agencies.	2.7	2.8	104
4. Institutional Support: Reorganization of the Forestry Department including establishment of an environmental management wing, training, and strengthening of the forestry education institute and the research institute.	17.6	8.1	46
TOTAL	58.7	53.2	91
SILK DEVELOPMENT PILOT PROJECT			
1. Policy Reform and Institutional Development: Establishment of the Silk Foundation, Restructuring of the Bangladesh Silk Board including leasing out of grainages, restructuring of the Bangladesh Sericulture Research and Training Institute, development of stakeholder associations and strengthening the Textile Strategic Management Unit.	5.1	n.a	-
2. Research and Productivity Enhancement. Development of additional research capacity, germplasm maintenance centers, grainages and piloting of bivoltine cocoon production.	4.7	n.a	-
3. Technology Dissemination: training, extension and demonstrations	2.7	n.a	-
4. Product Development and Market Promotion: training in fashion designs and promotion of Bangladesh silk products	0.3	n.a	-
5. Monitoring and Evaluation: Establishing an M&E unit and funding of studies.	0.2	n.a	-
TOTAL	13.0	6.5	50
AGRICULTURAL SERVICES INNOVATION AND REFORM PROJECT			
1. Support to HORTEX: To facilitate development of horticultural quality market exports.	3.1	2.3	74
2. Strengthening Implementation of NAEP: Department of Agricultural Extension grants for civil society – DAE partnerships to enhance agricultural productivity	10.0	8.6	86
3. Small scale pilots: of water management, soil testing and yield/weather forecasting.	1.8	1.6	89
TOTAL	14.9	12.5	84

Annex C. Past Bank Lending to Bangladesh from 1980 to 2005

Fiscal Year	Project Name	Project ID	IDA Commit Amt
1980	Low Lift Pumps	P009403	37.0
	Mangrove Forests	P009404	11.0
	Fertilizer Imp II	P009401	25.0
	Drainage & Flood Control	P009402	25.0
	Highways II	P009409	10.0
	Chittagong Water II	P009410	20.0
	Jute Industry Rehab.	P009405	20.0
	Fertilizer Ind. Rehab	P009407	29.0
	Educ. IV	P009406	40.0
	Program Credit VIII	P009408	50.0
1981	Agric Credit I	P009411	40.0
	Hand Tubewells	P009412	18.0
	Tech Assistance IV	P009418	16.0
	Gas Devt	P009415	85.0
	Fertilizer Transport	P009417	25.0
	Bsb II	P009413	50.0
	Small Indus. III	P009414	35.0
	Program Credit IX	P009416	65.0
1982	Drain/Flood Cont II	P009419	27.0
	Ag Ext II	P009420	27.0
	Ashuganj Power	P009424	92.0
	Rural Electrification	P009425	40.0
	Chittagong Ports	P009426	60.0
	Chittagong Fert.	P009422	15.0
	Textile Bmr	P009421	30.0
	Program Credit X	P009423	100.0
1983	Rural Dev II	P009427	100.0
	Deep Tubewells II	P009428	68.0
	Refinery Rehab. & En	P009432	28.5
	Highways I Suppl.	P009434	6.0
	Telecom III	P009429	35.0
	Public Administration	P009430	12.0
	Business Management	P009431	7.8
	Program Credit XI	P009433	110.0
1984	Wdb Small Schemes Pr	P009435	41.5
	Sugar	P009436	20.0
	Ag Res II	P009438	24.5
	Tech Assist V	P009444	25.0
	Petroleum Exploration	P009441	23.0
	Textile Bmr II	P009439	45.0

Fiscal Year	Project Name	Project ID	IDA Commit Amt
	Technical Education	P009440	36.0
	Agric Training II	P009437	8.1
	Program Credit XII	P009442	140.0
	Supplemental Assistance	P009443	30.0
1985	Flood Rehab. Credit	P009488	30.0
	Flood Con. & Drainage	P009445	48.0
	Gas Development II	P009448	110.0
	Primary Educ. II	P009447	78.0
1986	Shrimp Culture Project	P009446	22.0
	Forestry II	P009453	28.0
	Rural Elect. II	P009450	79.0
	Power Transm. & Dist	P009451	56.0
	Population III	P009458	78.0
	Program Credit XIII	P009449	200.0
1987	Flood Con. & Drainage	P009481	20.0
	Refinery Modif. & Lp	P009456	47.0
	Road Rehab. & Maintenance	P009459	102.0
	Dhaka Wasa III	P009493	30.0
	Industrial Sector Credit	P009457	190.0
1988	Flood Rehab. II	P009487	25.0
	Sm Sc Fcd & Irrig.II	P009512	81.5
	Urban Dev. I	P009467	47.6
	Rural Roads & Market	P009491	62.3
	Industrial Energy Efficiency	P009463	11.4
1989	Energy Sector	P009511	175.0
	Power Dist. (16 Town)	P009506	87.0
	Export Dev.	P009521	25.0
	Ind'l Sector Credit Supplement	P009543	2.5
	Flood Rehab III	P009541	133.6
1990	Fisheries III	P009519	44.6
	Bwdb System Rehab.	P009461	53.9
	Egy Sec Adj Credit Supplement	P009551	2.3
	Third Rural Electrification	P009542	105.0
	Financial Sector Cr.	P009528	175.0
	General Education	P009514	159.3
1991	Shallow Tubewell & L	P009476	75.0
	Agric. Support Services	P009516	35.0
	Nat'l Minor Irrigation	P009544	54.0
	Lpg Distrib.	P009462	67.2
	Third Inland Water Transport	P009540	45.0
	Finan. Sector Cre Su	P009552	3.5
	Pop. & Health IV	P009529	180.0

Fiscal Year	Project Name	Project ID	IDA Commit Amt
1992	Forest Resources Management	P009470	49.6
	Private Sec Ind'l Cr	P009454	25.5
	Finan Sector Adj Sup	P009561	2.9
	Technical Assistance 6	P009559	25.0
	Public Resource Mgt	P009464	150.0
1993	Ind Sector Secal II	P009513	100.0
	Ind Sector Secal II	P009563	3.5
	Female Secondary School Assistance	P009555	68.0
1994	Jamuna Bridge	P009509	200.0
	Second Road Rehabilitation & Maintenance	P009465	146.8
	Jute Sector Adj. Cred	P009553	247.0
	Jute Sector Supple me	P037298	3.3
1995	Gas Infrastructure Development	P009533	120.8
	Jute Sec. Adj. Supplement	P039861	3.2
	Bangladesh Integrated Nutrition	P009496	59.8
1996	Agriculture Research Management	P009484	50.0
	River Bank Protection	P009545	121.9
	Coastal Embankment Rehabilitation	P009549	53.0
	JSAC Supp III	P044548	3.4
	Non-Formal Education	P009560	10.5
1997	Fourth Dhaka Water Supply	P009482	80.3
	Second Rural Roads & Markets Improvement	P009518	133.0
	Jute Sec Adj Cre	P049349	2.9
	Poverty Alleviation (Microcredit I)	P040985	105.0
1998	Silk Development Pilot Project	P040713	11.4
	BD Private Sector Infrastructure Dev	P044789	235.0
	Primary Education Development	P009550	150.0
	Health and Population Program	P037857	250.0
1999	Coastal Embankment S	P065150	16.5
	River Bank Prot Sup	P065146	45.0
	Dhaka Urban Transport	P009524	177.0
	Third Road Rehabilitation & Maintenance	P037294	273.0
	Municipal Services	P041887	138.6
	Road Rehab Main II S	P065147	80.0
	Rural Roads Mkt II S	P065148	20.0
	Third Inland Water S	P065149	6.3
	Arsenic Mitigation Water Supply	P050745	32.4
	Export Diversification	P049790	32.0
	Emergency Flood Recovery Project	P063089	200.0
2000	Agricultural Serv. Innovation & Reform	P058468	5.0
	Fourth Fisheries	P009468	28.0
	Financial Institutions Development	P044811	46.9

Fiscal Year	Project Name	Project ID	IDA Commit Amt
	National Nutrition Program	P050751	92.0
2001	Air Quality Management Project	P057833	4.7
	Microfinance II	P059143	151.0
	Legal & Judicial Capacity Building	P044810	30.6
	Post-Literacy & Continuing Education	P050752	53.3
	HIV/AIDS Prevention	P069933	40.0
2002	Public Procurement Reform Project	P075016	4.5
	Rural Elect. Renewable Energy Dev.	P071794	191.0
	Financial Services for the Poorest	P074731	5.0
	Female Secondary School Assis. II	P044876	120.9
2003	BD: Telecommunications Technical Assist.	P081849	9.1
	Social Investment Program Project	P053578	18.2
	Rural Transport Improvement Project	P071435	190.0
	Central Bank Strengthening Project	P062916	37.0
	Development Support Credit	P081845	300.0
2004	Power Sector Development TA	P078707	15.5
	iBD - Water Supply Program Project	P086661	40.0
	Enterprise Growth & Bank Modernization	P081969	250.0
	Primary Education Development Program II	P074966	150.0
	Reaching Out of School Children Project	P086791	51.0
	Economic Management TA Program (EMTAP)	P083890	20.0
2005	Education Sector Dev. Support Credit	P077789	100.0
	HNP Sector Program	P074841	300.0
	Development Support Credit II	P083887	200.0