RESEARCH REPORT 65

CREDIT FOR ALLEVIATION OF RURAL POVERTY: THE GRAMEEN BANK IN BANGLADESH

Mahabub Hossain

February 1988

INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE

In collaboration with the BANGLADESH INSTITUTE OF DEVELOPMENT STUDIES

The **International Food Policy Research Institute** was established in 1975 to identify and analyze alternative national and international strategies and policies for meeting food needs in the world, with particular emphasis on low-income countries and on the poorer groups in those countries. While the research effort is geared to the precise objective of contributing to the reduction of hunger and malnutrition, the factors involved are many and wide-ranging, requiring analysis of underlying processes and extending beyond a narrowly defined food sector. The Institute's research program reflects worldwide interaction with policymakers, administrators, and others concerned with increasing food production and with improving the equity of its distribution. Research results are published and distributed to officials and others concerned with national and international food and agricultural policy.

The Institute receives support as a constituent of the Consultative Group on International Agricultural Research from a number of donors including the United States, the World Bank, Japan, Canada, the United Kingdom, the Netherlands, Australia, the Ford Foundation, Italy, Norway, the Federal Republic of Germany, India, the Philippines, Switzerland, Belgium, and the People's Republic of China. In addition, a number of other governments and institutions contribute funding to special research projects.

CREDIT FOR ALLEVIATION OF RURAL POVERTY: THE GRAMEEN BANK IN BANGLADESH

Mahabub Hossain

Research Report 65
International Food Policy Research Institute
in collaboration with the
Bangladesh Institute of Development Studies
February 1988

Library of Congress Cataloging in Publication Data

Hossain, Mahabub, 1945-
Credit for alleviation of rural poverty.

(Research report ; 65)
Bibliography: p. 85.
1. Grameen Bank. 2. Rural poor—Bangladesh. 3. Small business—Bangladesh. I. Title. II. Series: Research report (International Food Policy Research Institute) ; 65.

HG3290.6.A8G735 1988 332.1'753'095492
88-599 ISBN 0-89629-067-0

CONTENTS

TABLES

ILLUSTRATIONS

FOREWORD

There is a growing recognition that institutional credit plays an important role in the modernization of agriculture through technological change. It is clear that as those processes of modernization occur, incomes rise and expenditures on locally produced goods and services expand in such a manner as to increase the demand for labor and labor-intensive entrepreneurial activities. The question then arises as to what extent institutional credit can be offered to very poor people to facilitate their taking direct advantage of the developing entrepreneurial activities.

Perhaps the most widely admired effort to answer this question is that of the Grameen Bank in Bangladesh. One of the commendable features of the Grameen Bank is its desire to have its experience intensely analyzed for the benefit of others who are considering such an effort, as well as for its own improvement.

Mahabub Hossain conducted this in-depth analysis as a staff member of the Bangladesh Institute of Development Studies, which undertook a comprehensive research project on evaluation of the Grameen Bank. The International Food Policy Research Institute, in connection with a range of collaborations with Mahabub Hossain and BIDS, is pleased to have provided support to him in the writing phase of this study of the Grameen Bank.

Particularly notable in the findings is the importance of the institutional philosophy that has been so ably implemented by the founder of the bank, Dr. Muhammad Yunus, through a complex management structure. Clearly, however, the scale of the bank's operations is now far beyond the pilot stage, so the lessons are real and important.

Related to the bank's philosophy is a set of costs that seem necessary to success. These costs are high and, although not unacceptable, suggest the possible need for some subsidization. The costs come to 26.5 percent of the loans and advances, using market rates for borrowed funds—that is about 10 percentage points higher than the substantial 16 percent rate charged. In noting this, emphasis must be given not only to the equity implications but to the development implications of bringing large numbers of low-income people into the discipline of economic development derived from a credit system that has virtually no overdues or bad loans. Indeed, in comparing the substantial costs of Grameen Bank lending, it is especially notable that rural credit systems in developing countries typically have overdues on the order of half the level of new loans. The Grameen Bank has an approach that keeps overdues and loan losses at close to zero.

These and a vast number of other economic issues are tackled in Mahabub Hossain's research report. In addition, BIDS is bringing out a number of reports on the impact of the bank relating to social and administrative issues. The findings in this study are important in that they are broad and detailed and will contribute to needed policy improvements in the rural credit programs of developing countries.

Rehman Sobhan
Director General, Bangladesh Institute of Development Studies

John W. Mellor
Director, IFPRI

February 1988

ACKNOWLEDGMENTS

The field surveys for this study were conducted by the Bangladesh Institute of Development Studies, Dhaka. The contribution of Atiur Rahman and Rushidan Islam Rahman, who participated with the author in planning and implementing the survey, is gratefully acknowledged. The author is grateful to Rehman Sobhan, Director General of BIDS, and to Muhammad Yunus, Managing Director of the Grameen Bank, for providing institutional support. The report benefited from comments and suggestions made by John Mellor, Gunvant Desai, Hannan Ezekiel, Dayanatha Jha, Richard Meyer, and Muazzam Husain. Research assistance provided by Shamsun Nahar and Andrew Bernard is also gratefully acknowledged.

1

SUMMARY

The Grameen Bank is a specialized financial institution in Bangladesh that was established by government order in 1983 to provide credit to the rural poor for the purpose of improving their economic condition. The bank originated in 1976 as an action-research project in an area near Chittagong University to test the hypothesis that if the poor are supplied with working capital they can generate productive self-employment without external assistance. The bank now has a paid-up capital of Tk 72 million. Seventy-five percent of the shares are owned by the bank's borrower shareholders and 25 percent by the government. One member of a household that owns less than 0.5 acre of cultivable land or assets not exceeding the value of 1.0 acre of land is eligible to take loans from the bank. A loan is issued without any collateral and bears an interest rate of 16 percent a year.

The bank has progressed at a fast pace. By February 1987 it had opened 298 branches and mobilized nearly 250,000 households from 6 percent of the villages in the country. In the same period, it covered more than 25 percent of its target-group households in Tangail and Patuakhali districts, and 8-12 percent of the target group in the other three districts under its operation. At the end of 1986, the amount of outstanding loans stood at Tk 301 million. The yearly disbursement of loans increased from Tk 99 million in 1983 to Tk 542 million in 1986. The expansion of coverage of women, one of the most disadvantaged groups in rural society, has been impressive. At the end of 1986, women accounted for 74 percent of all members and 69 percent of outstanding loans. Nearly 98 percent of the new members mobilized during 1986 were women.

Loans from the Grameen Bank are used primarily for undertaking noncrop activities. In 1986, 46 percent of the loans were taken for livestock and poultry raising, 25 percent for processing and manufacturing activities, and 23 percent for trading and shopkeeping. The major activities financed are milch cow raising, paddy husking, cattle fattening, seasonal crop trading, paddy and rice trading, cattle and goat trading, handloom weaving, cloth trading, and grocery shop operating. With the increase in the proportion of women borrowers, who take loans mostly for livestock raising and paddy husking, the amount disbursed for livestock raising has increased.

Since 1982, credit has been issued to groups consisting of a number of borrowers for collective enterprises such as investing in irrigation machines, rice hullers, oil mills, and power looms; leasing markets; and leasing land for cooperative farming. The intent of these collective enterprise loans is to take advantage of improved technology and economies of scale, but they have had limited success, primarily because of difficulty in managing large groups and unfamiliarity with the enterprises. The share of the collective enterprise loans increased briskly from 1.9 percent in 1983 to 8.2 percent in 1984, but fell sharply during 1985 and 1986.

The bank has succeeded in reaching its target group. Only 4.2 percent of the members belong to households that own 0.5 acre or more of cultivable land. The target-group households that are left out are more numerous among agricultural wage laborers than among other occupational groups. About 60 percent of the Grameen Bank target group are agricultural-labor households, but agricultural labor was found to be the principal or subsidiary occupation for only 20 percent of members before they joined the bank.

The loan repayment performance is excellent. Only 0.5 percent of loans to 975 borrowers surveyed were overdue beyond one year, and overdue weekly installments (before the expiration of the one-year repayment period) were only 3.3 percent of the total amount borrowed. Most of the overdue loans were with nontarget-group members and repeat borrowers. Eighty-one percent of women borrowers had no overdue installments at the time of the survey, compared with 74 percent for men. A significant proportion of new borrowers pay installments in advance, presumably to get another and larger loan as early as possible. The main factors behind the excellent recovery of Grameen Bank loans are (1) the ability of the bank to confine credit services to the extremely needy; (2) the strong management system developed by the bank's founder-managing director, including decentralization of power and responsibilities, and intensive training of bank workers; (3) the provision of loans for activities that generate regular incomes; (4) the collection of repayments in small amounts, suitable to the circumstances under which the poor earn and live; and above all, (5) the dedicated services of the bank workers, who are strongly motivated by the dedication of the managing director and regard their work as an opportunity to serve the poor rather than simply to earn an income for themselves.

The Grameen Bank has a pervasive effect on the credit market in the area of its operation. Very few of the bank's target group get credit from formal lending agencies, and only about a fifth of them are served by informal lenders. With Grameen Bank intervention, the proportion of households receiving institutional credit increases to about a third—almost two-thirds among the target group. The share of Grameen Bank credit in total loans taken by all households in five randomly selected villages was 78 percent in 1984/85. Most of the institutional credit outside the bank went to the nontarget-group households.

The most direct effect of the Grameen Bank has been on the accumulation of capital by the poor. The amount of working capital employed by members' enterprises increased by an average of three times within a period of 27 months. The investment in fixed assets is about 2.5 times higher for borrowers with more than three years' membership than for those who joined during the year of the survey. The number of cattle owned per 100 borrowers increased from 61 before joining the bank to 102 at the time of the survey—an increase of 26 percent a year.

Grameen Bank loans help to generate new employment, particularly for poor women. About a third of the members reported that they were unemployed before joining the bank—almost 7 percent of the men and about 50 percent of the women. With the loans, these members generated self-employment in activities of their choice.

An in-depth household survey in five project villages and two control villages found that Grameen Bank members had incomes about 43 percent higher than the target group in the control villages, and about 28 percent higher than the target-group nonparticipants in the project villages. This positive income effect is mainly due to large increases in income from processing and manufacturing, trading, and transport services financed by the bank loans. A comparison of the incomes of different landownership groups in the selected project and control villages shows that the positive income effect has been highest for the absolutely landless, followed by the marginal landowners, but the income of the nontarget group is lower in the project villages than in the control villages, and the difference is largest for the higher-landownership groups. This variation indicates that the increase in income of the poor is partly due to a redistribution of income from the rich. But it appears that Grameen Bank intervention also leads to significant additions to rural incomes. While the project and control villages have similar endowments of land and of male workers, average household income is found to be one-sixth higher in the project villages than in the control villages. The extreme poverty-stricken population is 48 percent among Grameen Bank participants, compared with about 75 percent among nonparticipants in the target group in both project and control villages.

Thus the Grameen Bank has made a positive contribution to the alleviation of poverty in its area of operation. But the bank has so far covered only about 4 percent of its target-group households throughout Bangladesh. The issues are whether it can be expanded to a wide-enough scale to have a significant effect on the alleviation of rural poverty in Bangladesh and whether the model can be replicated in other countries.

The main factors that could affect successful expansion of the bank are the market for nonfarm goods and services, institutional development and stability, and costs of operation.

The present weak market for nonfarm goods and services, at the low levels of income prevailing in Bangladesh, may not pose a serious problem to expansion of the bank. It is now well recognized that with agricultural growth, the market for nonfarm goods and services is stimulated through linkage effects. The Grameen Bank target group is about half of the national population, and as their incomes rise, they will start demanding each other's products and services, thus expanding the market.

Over the last three years, the bank has made good progress in building a stable institution with the capacity to maintain the present high morale of the staff. As a result of expansion, a decentralization of administration has taken place, with responsibilities and decisionmaking powers vested in a dedicated cadre of midlevel officials that was developed during the 1976-82 period of experimentation with the project. Incentives for hard work have been maintained through quick promotion and transfers based on performance in the field.

Because of intensive supervision of borrowers and participation of bank workers in social development activities, the operating costs of Grameen Bank are very high. For 1986 the cost of loan operations is estimated at 21.7 percent of the loans and advances at the actual cost of funds to the bank, which is highly subsidized by two loans from the International Fund for Agricultural Development (IFAD). This cost would be 26.5 percent if the bank had to borrow at the same rate as the other financial institutions in the country.

The implicit rate of subsidy on loan operations is estimated at 39 percent at the actual cost of the funds, and 51 percent at the opportunity cost. The bank has so far managed on its own by keeping part of its low-cost loanable funds in fixed- and short-term deposits with other banks, and the profits from these financial transactions have made up the losses from loan operations. But this practice cannot be counted on as a long-term source of income. The high cost may constrain the expansion of the bank unless it decides to increase the rate of interest charged on the loan or to reduce the cost by providing more large loans (for example, collective enterprise loans), moving into agricultural credit for small farmers, and embarking on deposit-banking on a large scale.

The Grameen Bank concept of generating self-employment for the poor through credit without collateral should work in other countries with widespread poverty and underemployment. Some elements of the Grameen Bank approach to delivery of credit, such as formation of small homogeneous groups for group guarantee of loans and supervision of loan utilization, recovery of loans in small regular installments, and development of institutions of collective savings for mutual benefit of members, may also work in other environments. But elements like taking the bank to the people and intensive interaction of bank staff with borrowers may be inappropriate and highly expensive for sparsely settled areas with underdeveloped transport systems. For such environments, an appropriate delivery mechanism has to be worked out. Indeed, one of the lessons of Grameen Bank is that an appropriate institution can be developed only after considerable experimentation, through a thorough understanding of the physical and socioeconomic environments.

2

INTRODUCTION

Bangladesh has been experimenting with a rural credit program for the extreme poor that is known as the Grameen Bank. The word *grameen* means village, but the Grameen Bank is different from the agricultural development bank (Bangladesh Krishi Bank or BKB) and commercial bank branches located in villages. The Grameen Bank is a target-group-oriented credit institution set up to provide loans to rural households that own less than 0.5 acre of land.

The Grameen Bank was initiated in 1976 as an action research project in a village near Chittagong University by a professor of economics who is currently the bank's managing director. After an experimental period of three years, the project was replicated in five districts of Bangladesh (see Figure 1) during 1979-82, in collaboration with rural branches of commercial banks and BKB, and with financial assistance from the Bangladesh Bank (the state bank of Bangladesh) and the International Fund for Agricultural Development (IFAD). The project was transformed into a specialized credit institution by a government ordinance in September 1983. Since then it has expanded rapidly. By February 1987 the Grameen Bank had opened 298 branches covering more than 6 percent of the villages in the country.

The Grameen Bank organizes the poor in groups and associations and provides credit without collateral at the same rate of interest (16 percent a year) as other commercial banks. It supervises utilization of the loans and guides borrowers (members) in all-around socioeconomic development. Loans are made to individuals for a maximum of Tk 5,000.[1] Nearly three-fourths of the borrowers are women. The bank has succeeded in recovering 98 percent of the loans and in substantially improving the economic condition of member households.

Since the Grameen Bank is a rare success story in the history of rural credit experiments in the developing world, it generates curiosity and hope in other developing countries among policymakers who would like to use credit as an antipoverty program. A thorough evaluation of the initial experience of the bank may thus be useful at this stage. Such an evaluation is the purpose of this study, which aims to describe the organization and management of the Grameen Bank, evaluate its credit operations, and assess the bank's effect on alleviation of poverty.

Sources of Information

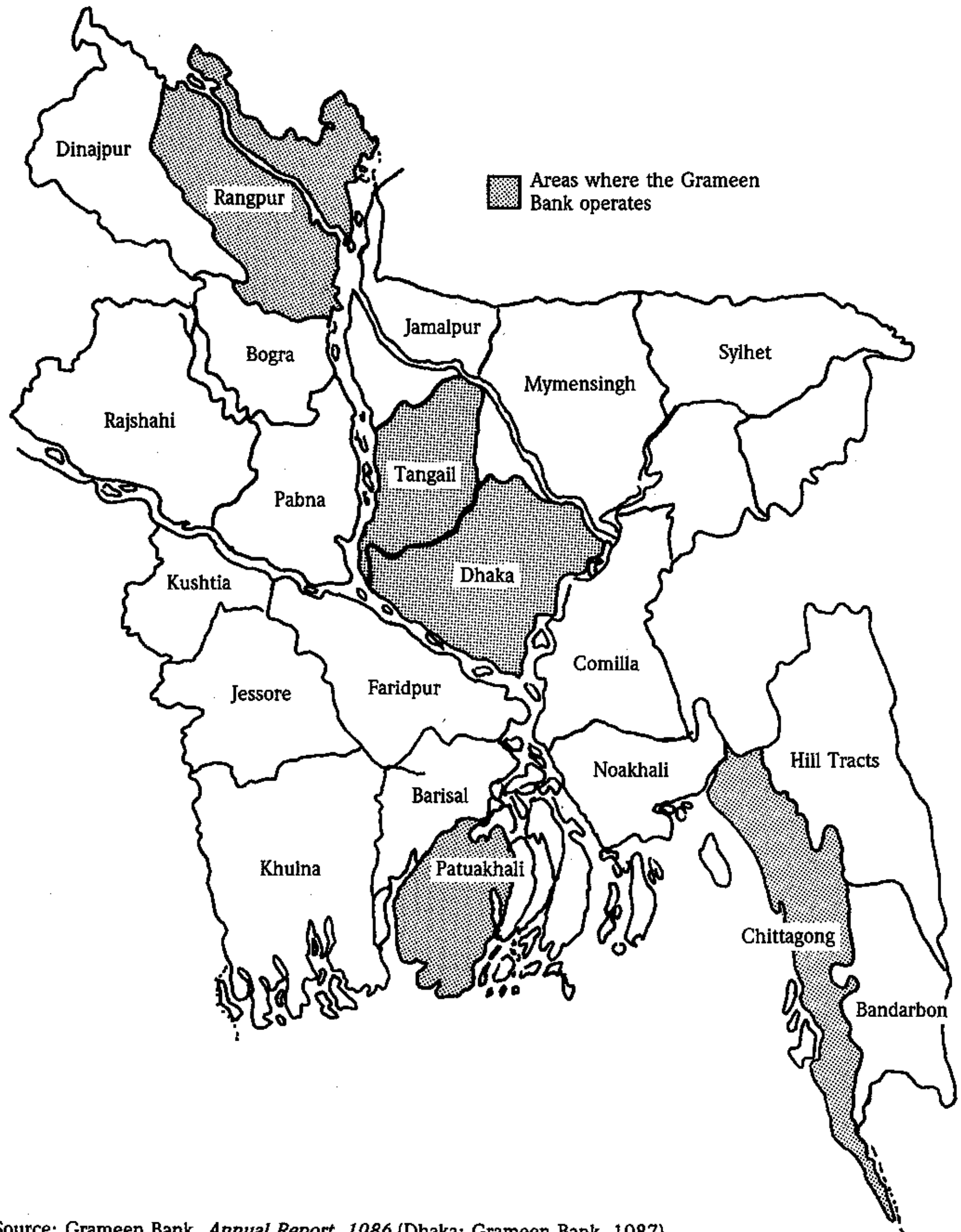
The study was undertaken by the author in May 1985 at the request of the Grameen Bank and is a follow-up of an earlier study that investigated the performance of the bank up to the end of 1983.[2] The data were collected through field surveys of borrowers and an in-depth household survey in selected project and control villages. Data generated by the bank as a part of its management information system, which is well de-

---

[1] In June 1987, one Bangladesh taka (Tk) was equivalent to U.S. $0.032.

[2] Mahabub Hossain, *Credit for the Rural Poor: The Grameen Bank in Bangladesh,* Research Monograph 4 (Dhaka: Bangladesh Institute of Development Studies, 1984).

Figure 1—Map of districts served by the Grameen Bank



Source: Grameen Bank, *Annual Report, 1986* (Dhaka: Grameen Bank, 1987).
Note: An administrative reorganization in 1982 created 64 new districts out of 21 old districts.

veloped compared to that of other institutions in Bangladesh, have also been used. The survey methodology is described below.

Branches more than one year old in May 1985 were classified in two groups according to age: those from one to three years old and those more than three years old. Ten percent were randomly selected from the first group and 20 percent from the second group. This selection produced a total of 15 branches, 5 of them from the older group. A list of all villages covered by the selected branches was obtained from the Grameen Bank, and one village was randomly selected from each of the branches. All current borrowers belonging to the selected villages were interviewed, using a structured questionnaire. The sample consisted of 975 borrowers. This survey was conducted during July and August 1985.

To assess the effect of the Grameen Bank on the economic condition of borrower households, five villages selected from the older branches were taken as project villages. In addition, two control villages were selected, keeping in mind similarities of land distribution and occupation structure between project and control villages. First, a census was undertaken in these seven villages to collect information on landownership and occupation. The households were then randomly stratified into four landownership groups and two occupation groups (farm and nonfarm) within each landownership group. A proportional random sample was then drawn from each of the eight strata to get 40 sample households from each village. The total sample size for this survey thus consisted of 280 households. They were interviewed to collect detailed information on employment, assets, income, expenditure, and investment. This survey was conducted from September to November 1985, and the data refer to fiscal year 1984/85.[3] The author was involved in the design and administration of both surveys.

Organization of the Report

As a background to the study, Chapter 3 describes the socioeconomic environment under which the Grameen Bank works. Information is provided on the extent of landlessness and poverty, the organization of production and the employment situation for the poor, and the access of the poor to capital markets. This information may be useful in appreciating the factors that have contributed to the success of the Grameen Bank and the conditions for its successful replicability in other countries. Also important to the bank's success was the building of an appropriate institutional and organizational structure that could cater to the needs of the poor. The organization and management of the bank are briefly described in Chapter 4.

Historical information about the progress of the bank in disbursing and recovering loans, the relative importance of different activities financed, and the utilization of a savings fund created for the borrowers is presented in Chapter 5. Chapter 6 reports the findings of the borrower survey regarding the success of the bank in reaching its target group, the pattern of utilization of loans, and the repayment behavior of the borrowers. Chapter 7 then analyzes the effect of the bank on employment, capital accumulation, income, and the standard of living for the rural poor.

Since the Grameen Bank is an intensively managed credit program and is also engaged in socioeconomic development of its clientele, costs of operation are expected to be high. Chapter 8 takes up this issue and estimates the operating costs of the bank in order to assess the implications for subsidies in credit programs for the poor. Finally, Chapter 9 draws some lessons from the experience of the Grameen Bank and discusses both the constraints to expansion of the program and the possibility of its replication in other countries.

---

[3] In Bangladesh, the fiscal year and agricultural year are the same.

3

SOCIOECONOMIC ENVIRONMENT AND THE ROLE OF CREDIT

Landlessness and Poverty

Bangladesh is an extremely land-scarce country. In 1987 it supported over 100 million people within an area of 56,000 square miles. Nearly two-thirds of its 35 million acres of land are already cultivated; the remainder is under forests, rivers, and homesteads.[4] There is little scope for expanding the cultivated area, which has remained at 22.2 million acres since the early 1960s. The 1983/84 agricultural census found that the average size of a farm had declined from 3.53 acres in 1960 to 2.25 acres in 1984.[5]

Because of the extreme pressure of population on land, the incidence of landlessness is high. In 1983/84 only 3.8 percent of rural households owned 7.5 acres or more and another 16.3 percent owned 2.5-7.5 acres (see Table 1). Households with no land at all were relatively few, since shelter requires a parcel for a homestead, but the number of marginal landowners is vast. Households with less than 0.5 acre were estimated at 6.4 million—about 46 percent of all rural households in 1983/84. In Bangladesh, households with less than 0.5 acre are considered functionally landless, since the amount of land they own cannot be a significant source of income.

Until recently, the landless were growing at a faster rate than the population—the exact magnitude of the growth is disputed because comparable time series data are not available.[6] For 1960 the number of rural households was estimated at 9.1 million, of which 3.8 million were functionally landless. By 1979 these numbers had increased to 12.9 and 6.3 million, respectively. Thus the landless grew at 2.7 percent a year compared with 1.9 percent for all rural households. In recent years, however, the situation may have improved because of rapid urbanization and relatively greater movement of the absolutely landless households to urban areas. During 1979-84, the number of absolutely landless households declined from 2.0 to 1.2 million, while the number of marginal landowners increased from 4.3 to 5.2 million—a rate of increase of 4.4 percent a year, compared with a 1.6 percent increase in the number of all rural households.

Many recent studies have reported that during the 1970s, two-thirds to three-fourths of the rural population suffered from absolute poverty, and the magnitude of poverty had deepened compared with that of the 1960s.[7] The 1970s also witnessed a severe

---

[4] Bangladesh, Bureau of Statistics, *1986 Statistical Yearbook of Bangladesh* (Dhaka: Government Press, 1986).

[5] Bangladesh, Bureau of Statistics, *The Bangladesh Census of Agriculture and Livestock: 1983-84,* vol. 1 (Dhaka: Government Press, 1986).

[6] Steve Jones, "An Evaluation of Rural Development Programs in Bangladesh," *The Journal of Social Studies* 6 (December 1979): 51-92; Mosharaf Hossain, A. Rashid, and S. Jahan, *Rural Poverty in Bangladesh: A Report to the Like-Minded Group* (Dhaka: Universities Research Center, 1986); and Mahabub Hossain, "A Note on the Trend of Landlessness in Bangladesh," *The Bangladesh Development Studies* 14 (June 1986): 93-100.

[7] A. R. Khan, "Poverty and Inequality in Rural Bangladesh," in *Poverty and Landlessness in Rural Asia,* ed. International Labour Organisation (Geneva: ILO, 1977), 137-160; M. Muqtada, "Poverty and Inequality: Trends and Causes," in *Bangladesh: Selected Issues in Employment and Development,* ed. R. Islam and M. Muqtada (New Delhi: International Labour Organisation, Asian Employment Program, 1986), pp. 41-60; and I. Islam and H. Khan, "Income Inequality, Poverty and Socio-Economic Development in Bangladesh," *The Bangladesh Development Studies* 14 (June 1986): 75-92.

Table 1—Distribution pattern of rural landownership, 1979 and 1983/84

Size of Land Owned	1979 Land Occupancy Survey: Number of Households	1979 Land Occupancy Survey: Share of Households	1983/84 Agricultural Census: Number of Households	1983/84 Agricultural Census: Share of Households	Annual Rate of Growth, 1979-84
(acres)	(thousands)	(percent)	(thousands)	(percent)	(percent)
None	1,979	15.4	1,198	8.7	−10.5
Less than 0.50	4,286	33.3	5,201	37.6	4.4
0.50−0.99	1,516	11.8	1,660	12.0	2.0
1.00−2.49	2,660	20.7	2,979	21.6	2.5
2.50−4.99	1,436	11.2	1,598	11.6	2.4
5.00−7.49	501	3.9	650	4.7	6.0
7.50−14.99	374	2.9	415	3.0	2.4
15.00 or more	114	0.9	117	0.8	0.6
Total	12,866	100.0[a]	13,818	100.0	1.6

Sources: Bangladesh, Bureau of Statistics, *Statistical Pocket Book of Bangladesh, 1985* (Dhaka: Government Press, 1985), p. 211; and Bangladesh, Bureau of Statistics, *The Bangladesh Census of Agriculture and Livestock: 1983-84*, vol. 1 (Dhaka: Government Press, 1986), p. 98.
[a] Parts do not add to total because of rounding.

downward trend in real wages for agricultural workers. However, the 1981/82 Household Expenditure Survey shows significant improvement in the poverty situation in the early 1980s.[8] The real wage for agricultural laborers also has shown a consistent upward trend since 1982. In 1986 the daily nominal wage could buy 3.5 kilograms of rice—44 percent more than during the 1975-82 period, and 25 percent more than in 1970, just before the independence of the country. But the proportion of poor population was still about 60 percent in 1981/82, which must be considered high by any standard.

The links between landlessness and poverty are widespread underemployment and low productivity of labor. The labor force surveys in Bangladesh report very little open unemployment (Table 2), because people often find part-time and short-duration work and family laborers share work generated by the household. The average duration of work is also estimated at high levels. The 1983/84 labor force survey recorded that in rural areas, an employed person worked an average of 52 hours during the week preceding the date of the survey.[9] But a large proportion of such labor would be of very low productivity. Since the poor cannot afford to remain unemployed, and the wage rate is low, they engage in various types of self-employment and work beyond normal hours to supplement their meager household income.

Farming as a Source of Employment

The labor-absorption capacity of the agricultural sector is limited. Seventy-nine percent of the labor force reported agriculture as their primary occupation in 1974, but many have since moved out of agriculture, reducing its share to 59 percent by 1983/84 (Table 2). Agriculture's share of the rural labor force declined from 86 percent to 72 percent during 1974-84. Information on national employment in crop farming is lacking. Based on norms of fixed labor coefficients derived from village studies, it is estimated that an agricultural

[8] Bangladesh, Bureau of Statistics, *Report of the Bangladesh Household Expenditure Survey, 1981-82* (Dhaka: Ministry of Planning, 1986).
[9] Bangladesh, Bureau of Statistics, *Final Report: Labor Force Survey, 1983-84* (Dhaka: Government Press, 1986).

Table 2—Changes in structure of labor force, 1973/74 to 1983/84

Labor Category	1973/74 Millions of Persons	1973/74 Share of Total	1983/84 Millions of Persons	1983/84 Share of Total	Annual Rate of Growth
		(percent)		(percent)	(percent)
Labor force	21.93	100.0	28.47	100.0	2.7
Unemployed	0.52	2.4	0.49	1.7	−0.6
Employed	21.41	97.6	27.98[a]	98.3	2.7
Rural	19.20	87.6	22.20	78.0	1.5
Urban	2.21	10.0	5.80	20.3	10.1
Employed in nonagriculture	4.57	20.8	11.53	40.5	9.7
Rural	2.67	12.3	6.25	22.0	8.9
Urban	1.90	8.5	5.28	18.5	10.8

Sources: Bangladesh, Bureau of Statistics, *Final Report: Labor Force Survey, 1983-84* (Dhaka: Government Press, 1986).
Note: The 1983/84 figures have been adjusted to include rural towns in urban areas. The 1973/74 figures are adjusted for undercounts detected in the postcensus enumeration checks.
[a] Parts do not add to subtotal because of rounding.

worker would have been employed in crop farming for 158 days during 1984/85.[10]

The wage employment generated in farming activities is even less adequate for functionally landless (less than 0.5 acre) households. The small farm (less than 2.5 acres) can meet most of the required labor with family workers, and large landowners (with 7.5 acres or more) cultivate a part of their holdings with peasant sharecroppers, thereby reducing the need to hire labor. Thus the size of the agricultural labor market is small and is gradually shrinking because of the increasing availability of family workers associated with the growing pressure of population on land. It is estimated from a recent household survey that nearly four-fifths of farm households hire labor at some time because of the seasonality of agricultural operations, but only one-fourth of the available agricultural labor is hired.[11] On the supply side, two-thirds of the functionally landless households participate in the agricultural labor market, and the participating households receive employment from the market for about 160 days a year.

With existing technology, labor productivity in farming is low and payment to hired labor is meager. In 1984/85, value added from crop production was Tk 15,000 per farm household against an estimated employment of 225 days per farm, which gives a labor productivity of Tk 67 per eight-hour standard day. At this rate, a six-member farm household would have to work for 310 days to earn a poverty-level income for the household. The hired workers are paid a wage rate that is less than a half of the average labor productivity. The nominal wage rate for agricultural workers in 1984/85 was Tk 25 per day. At this rate, a five-member landless household would have to work for 690 days a year to earn the poverty-level income. This amounts to about 400

[10] M. Muqtada, "Determinants and Possibilities of Employment Expansion in the Crop Sector," in *Bangladesh: Selected Issues in Employment and Development,* ed. R. Islam and M. Muqtada (New Delhi: International Labour Organisation, Asian Employment Program, 1986), pp. 61-88.
[11] Mahabub Hossain, *Nature and Impact of Modern Rice Technology in Bangladesh,* Research Report 68 (Washington, D.C.: International Food Policy Research Institute, forthcoming).

days per worker in the household.[12] The compulsion on the part of the poor to generate self-employment so that they can utilize available surplus labor and can work beyond standard hours is thus understandable.

Agricultural Growth Linkage and Expansion of the Rural Nonfarm Sector

In view of the above, it could be argued that the landless are being pushed out of agriculture and that the urban informal sector and the rural noncrop activities are operating as their "employers of last resort." These activities enable labor-surplus households to transform nonmarketed labor into commodities and marketable services. The expansion of the rural nonfarm sector would then be constrained from the demand side. If the demand for nonfarm goods and services did not increase as fast as the supply, prices would fall and the increased flow of labor into the sector would reduce labor productivity.

Agricultural growth following the diffusion of the new "seed-fertilizer-water" technology may, however, stimulate the demand for nonfarm goods and services.[13] In Bangladesh, regional concentration of irrigation and the availability of the new technology mostly for rice and wheat has led to specialization of cereal production in irrigated areas and production of noncereal crops in nonirrigated areas. This implies larger movement of agricultural commodities across regions and increased demand for trading and transport services. The diffusion of the new technology may have created opportunities for investment in rural nonfarm activities through its effect on the demand for (1) agricultural inputs such as fertilizer, pesticides, irrigation equipment, fuel, and spare parts produced in the nonagricultural sector; (2) services for processing and marketing additional surplus produce; and (3) trading and transport services to handle the additional purchase of nonfarm goods. Also, livestock and fisheries products and rural services have very high income elasticity of demand, so with the growth of agricultural income the share of these commodities in the rural consumption basket increases more than proportionately.[14]

Rapid rural-urban migration itself creates jobs in the rural nonfarm sector. In Bangladesh, urbanization is going on at a rapid pace. The proportion of urban population increased from only 5 percent in 1961 to 17 percent in 1981. The enlarged urban market has stimulated the growth of marketed surplus and increased the flow of urban goods to rural areas. The marketed surplus of rice increased from about 10 percent in the early 1960s to nearly 40 percent in 1984/85.[15] According to a recent transport study,[16] the volume of freight traffic increased by 5 percent a year and the volume of passenger traffic by 7 percent a year during 1976-85. The demand for trading and transport services would increase correspondingly.

---

[12] The average size of the household and number of family workers assumed for this calculation are those observed in village studies. The poverty level income for 1984/85 is taken as 10 percent higher than that estimated for 1983/84. The retail price of coarse rice has actually increased in recent years by about 10 percent a year.

[13] John W. Mellor, *The New Economics of Growth* (Ithaca, N.Y.: Cornell University Press, 1976).

[14] For rural Bangladesh, the expenditure elasticity of demand is estimated at 1.6 for livestock and fisheries products, 1.4 for industrial goods, and 1.6 for construction, trading, transport, and other services, compared to 0.7 for food crops. See Mahabub Hossain, "Agricultural Growth Linkages—The Bangladesh Case," *The Bangladesh Development Studies* 15 (March 1987): 1-30.

[15] Bangladesh, Bureau of Statistics, *Monthly Economic Situation in Bangladesh* (Dhaka: Government Press, December 1985); and Bangladesh, Bureau of Statistics, *Master Survey of Agriculture (Second Round)* (Dhaka: Government Press, 1964).

[16] Bangladesh, Planning Commission, "Intermodal Transport Study: Final Report," as quoted in *The Third Five-Year Plan, 1985-90* (Dhaka: Government Press, December 1985).

Organization of Nonfarm Production and the Poor

A majority of the organizers of rural nonfarm activities come from lower-income households. According to the 1983/84 agricultural census,[17] 6.7 percent of rural households operated cottage industries; the proportion was 10.8 percent for the landless, 6.9 percent for those operating less than 2.5 acres, and 3.7 percent for households operating 7.5 acres or more. A 1982 survey of 16 villages found that 40 percent of rural households were engaged in transport and construction activities and 30 percent in various rural services.[18] For the functionally landless group, the estimate was 54 percent in transport and construction and 40 percent in rural services. The inverse relationship between self-employment in rural nonfarm enterprises and the size of landownership has also been reported by other village studies.[19]

A number of hypotheses can be put forward to explain the relative advantages, in the initial stages of development, of small-scale organization of production around the household over large-scale production along capitalist lines.

First, at low levels of income, the size of the market for nonfarm goods and services is so small and thinly spread over a wide area that large-scale organization of production may be uneconomic owing to underutilization of capacity of indivisible assets. For example, a petty trader carrying goods on a headload may operate more economically in a village *hat* than a large trader transporting goods on carts, boats, or trucks. (A *hat* is a marketplace where people assemble once or twice a week. On average, one *hat* serves a population of about 9,000 people from a cluster of eight villages.)

Second, in the environment of underdeveloped infrastructure facilities, the high unit cost of transport may prohibit movement of goods necessary to exploit the market of a wider area if production has to be organized on a large scale. The household, on the other hand, can limit production to an amount that can be sold within the locality or be transported to the *hat* on headloads of the producer without incurring any transport cost. This may be an important reason behind the dispersion of traditional cottage occupations, such as potter, blacksmith, carpenter, and matmaker, to almost every village, thus making each village a self-sufficient production and consumption unit at the phase of development when the market is thin and the infrastructure is undeveloped.

Third, the demand for such goods and services may be seasonal, with peaks occurring during post-harvest periods when farmers sell their products and buy nonfarm goods with the cash income. Trading activities fluctuate even within a week; in most areas, transactions take place in a *hat* held once or twice a week. In this environment, the household has more flexibility in reallocating family labor among different occupations according to the pattern of demand than does a firm hiring workers on a full-time basis. Thus, a hired worker of a specialized firm is more likely to be underemployed than is a family worker engaged in a number of activities that the household organizes.

Fourth, under conditions of widespread underemployment and poverty, the opportunity cost of employing family labor may be considerably less than the wage rate. Because of institutional norms, hired laborers work for a specified period of the day (usually from eight o'clock in the morning to four in the afternoon). But a household that attaches high cost to leisure because of poverty can extend working hours by employing family workers beyond normal hours. Maintenance of livestock and poultry is an activity that can be done by using family

[17] Bangladesh, *Census of Agriculture and Livestock: 1983-84.*

[18] Hossain, *Nature and Impact.*

[19] See, for example, Bangladesh Institute of Development Studies, *Rural Industries Study Project—Final Report* (Dhaka: BIDS, 1981), Chap. 3.

labor during slack times without sacrificing the opportunity of wage employment. In Bangladesh, a large proportion of workers in cottage industries are women who, because of socioreligious factors, do not look for employment outside the home. Cottage industries and petty trade are often secondary occupations of men who work during evenings or slack periods of their primary occupation.[20] Since such family labor has low opportunity cost, the real rate of return on capital for organizing nonfarm activities is higher for a household than for a firm that must deduct the wages paid to hired workers before estimating the profit.

The Role of Credit

Generation of self-employment in nonfarm activities may require investment in working capital and basic skills in reading, writing, and arithmetic. The poor may be constrained in taking up such employment opportunity by lack of financial resources and necessary human capital. The amount of financial capital required may be small, but at very low levels of income it is difficult to accumulate even that amount. Although development of human capital involves a long-term program, working capital can be provided to the poor through financial institutions.

Under certain circumstances, loans can help the poor to accumulate their own capital. Baker and Hopkin show that the relationship between the growth in equity capital and credit is governed by the following:[21]

$$\Delta E/E = [(D/E)(r - i) + r] (1 - c),$$

where D is the amount of loan; E is the amount of equity capital, that is, the difference between the value of assets and the loan; r is the rate of return on assets; i is the rate of interest paid on the loan; and c is the rate of consumption out of the income from the asset. As long as the rate of return on assets is higher than the rate of interest on the loan, credit will increase family income. The higher the share of the loan in total capital (D + E), the higher will be the growth of income of the household. If the marginal propensity to consume is unity, the amount of equity capital will be unchanged, but if it is less than one, the loan will increase the net worth of the household. Under normal circumstances, the poor may find it very difficult to save, but if the credit program is such that the loan and the interest are recovered in small installments over a period of time, the loan may force compulsory regular saving of small amounts that would otherwise be consumed under the pressure of poverty.

But credit is rarely available to the poor at reasonable rates of interest. Commercial banks fail to cater to the credit needs of the poor for three main reasons. First, these banks require collateral, which the poor find difficult to provide; second, their procedures for filling in application forms and completing other formalities for obtaining loans are too cumbersome for the illiterate poor; and third, they prefer handling large loans rather than the petty loans that the poor need. The general experience of the

[20] The 1979 BIDS survey of rural industrial enterprises in 11 *upazilas* (the lowest-level administrative unit, which was previously called *thana)* found that women constituted 34 percent of workers in enterprises located in villages, compared with only 6 percent in enterprises located in rural towns. Male workers employed in rural industries worked an average of 319 days a year, of which 188 days (59 percent) were spent in industrial occupations. In low-productivity industries, such as mat making, bamboo and jute processing, and rice processing by wooden husker, industry provided employment to male workers for 125 days. Female workers, on the other hand, worked for 287 days a year, of which 276 days (96 percent) were spent in industrial occupations. See Mahabub Hossain, "Employment and Labour in Bangladesh Rural Industries," *The Bangladesh Development Studies* 12 (March-June 1984): 1-24.

[21] C. B. Baker and J. A. Hopkin, "Concepts of Finance Capital for a Capital-Using Agriculture," *The American Journal of Agricultural Economics* 51 (December 1969): 1055-1064.

small farmer credit program, which has long been popular with governments of most developing countries, has been limited success in reaching the target group.[22]

In Bangladesh the number of rural branches of commercial banks and the agricultural development bank has increased greatly in recent years, from 854 in 1975/76 to 3,225 in 1983/84.[23] The amount of credit disbursed by these institutions increased from Tk 461 million to Tk 10,087 million during this period, but the loans were received by a few medium and large landowners. A survey conducted by the International Fertilizer Development Center (IFDC) among 2,400 randomly selected households noted that in the 1982 boro rice season (when the input-intensive, high-yielding paddy is grown), only 4.6 percent of the farmers received credit from institutional sources. The proportion was 1.2 percent for farmers with landholdings of less than 1.0 acre, compared with 7.7 and 7.2 percent, respectively, for farmers with medium (2.5 to 5.0 acres) and large (over 5.0 acres) holdings.[24] The picture was similar for other crop seasons. For the 1981/82 crop year, 13.6 percent of the farmers received credit from institutional sources; for the marginal landowning group, the estimate was 5.4 percent.

The joint review of agricultural credit conducted by the government of Bangladesh and the International Development Association also noted that loans disbursed by financial institutions went mostly to households owning 3 to 9 acres of land.[25] The findings of a 1982 household survey conducted jointly by the Bangladesh Institute of Development Studies (BIDS) and the International Food Policy Research Institute (IFPRI) in 16 villages are reported in Table 3.[26] The survey collected information on a quarterly basis on loans obtained by the sample households from both institutional and informal sources. It was found that only 14 percent of the households received credit from institutional sources; this is similar to the findings of the IFDC survey.[27] The institutional sources provided one-fourth of the total loans taken by the sample households. Only 7 percent of the functionally landless group could tap the institutional sources, which accounted for 8 percent of the total loans taken by them. The extremely limited access of the poor to financial institutions is aptly demonstrated by the above information.

The poor, however, have access to informal sources of loans: professional moneylenders known as *mohajons,* well-to-do farmers, friends, and relatives. Table 3 shows that 62 percent of the rural households obtained loans from these sources, and their importance was higher for the smaller landowning groups. Nearly 92 percent of the functionally landless households were dependent on these sources for about 92 percent of total loans. But these sources charge very high rates of interest. The BIDS/IFPRI study[28] found that in two-fifths of the cases, loans from informal sources were provided

---

[22] For an excellent review of the small farmer credit program in developing countries, see U.S. Agency for International Development, *Small Farmer Credit: Analytical Papers,* vol. 19 (Washington, D.C.: Department of State, 1973).

[23] A. M. A. Rahim, "Agricultural Credit Institutions and Policies in Bangladesh," *The Bangladesh Journal of Agricultural Economics* 8 (June 1985): 17-34; Mahabub Hossain, "Institutional Credit for Rural Development: An Overview of the Bangladesh Case," *The Bangladesh Journal of Agricultural Economics* 8 (June 1985): 1-16.

[24] International Fertilizer Development Center, *Agricultural Production, Fertilizer Use and Equity Considerations: Results and Analysis of Farm Survey Data; 1980-82, Bangladesh* (Muscle Shoals, Ala.: IFDC, 1984), pp. 67-70.

[25] Bangladesh/International Development Association, *Bangladesh Agricultural Credit Review* (Dhaka: Government of Bangladesh/IDA, 1983).

[26] For details about the survey see Bangladesh Institute of Development Studies/International Food Policy Research Institute, *Development Impact of the Food for Work Program in Bangladesh,* a report prepared for the World Food Programme (Washington, D.C.: BIDS/IFPRI, 1985).

[27] IFDC, *Agricultural Production.*

[28] BIDS/IFPRI, *Development Impact of the Food for Work Program.*

Table 3—Distribution pattern of rural credit, by landownership group, 1982

Landownership Group	Households Receiving Loans: Institutional Sources	Households Receiving Loans: Informal Sources	Amount of Loans Obtained per Household: Institutional Sources	Amount of Loans Obtained per Household: Informal Sources	Share of Total Loans Obtained from Institutional Sources
(acres)	(percent)		(Tk/year)		(percent)
Functionally landless (up to 0.49)	6.8	91.6	81	936	8.0
Small owner (0.50–1.99)	15.0	55.9	226	841	21.2
Medium owner (2.00–4.99)	20.0	46.9	504	963	34.4
Large owner (5.00 or more)	21.0	29.0	929	1,493	38.4
All households	14.3	61.7	323	964	25.0

Sources: Compiled from information in Raisuddin Ahmed and Mahabub Hossain, "Infrastructure and Development of a Rural Economy," International Food Policy Research Institute, Washington, D.C., 1987 (mimeographed).

Note: These figures are estimates based on a survey of 640 randomly selected households in 16 villages that was conducted jointly by the Bangladesh Institute of Development Studies and the International Food Policy Research Institute in 1982.

free of interest,[29] but for the remaining cases the average rate of interest charged was estimated at 125 percent a year. In contrast, the average rate of interest paid on loans from institutional sources was 14.6 percent a year. The high rate of interest severely limits the production activities that can be undertaken with the loans. Therefore, high-interest credit from noninstitutional sources basically finances consumption, for which the poor are forced to take very short-term loans when their physical existence is at stake.

Faced with shortage of capital, many nonfarm operators often borrow raw materials in kind from the *mohajons* against the stipulation of compulsory delivery of output to the lender. Such transactions usually involve higher prices for raw materials and lower prices for output, compared with the market, and the implicit interest charges claim a large proportion of the potential income of the borrower.[30] Also, lack of access to capital sometimes forces the poor with necessary skills to organize nonfarm enterprises in "partnership" with the rich whose only involvement in the activity is the contribution of capital. The income obtained by the poor in such enterprises may not be higher than the imputed value of the family labor at the wage rate prevailing in the market. Supply of capital at "reasonable" rates of interest could thus make a significant dent in the life of the rural disadvantaged groups.

[29] Raisuddin Ahmed and Mahabub Hossain, "Infrastructure and Development of a Rural Economy," International Food Policy Research Institute, Washington, D.C., 1987 (mimeographed).

[30] The Bangladesh Institute of Development Studies survey of rural industrial enterprises estimated the annual rate of interest at 58 percent for loans supplied by local moneylenders and 48 percent for loans obtained from rich peasants. See Momtaz U. Ahmed, "Financing Rural Industries in Bangladesh," *The Bangladesh Development Studies* 12 (March-June, 1984): 59-79. The high rate of interest in informal markets is generally explained by the scarcity of capital, high costs of administering loan recovery, high risks of default, seasonal demand for credit, and in certain cases, a monopoly rent. See, among others, Anthony Bottomley, "Monopoly Profits as a Determinant of Interest Rates in Underdeveloped Rural Areas," *Oxford Economic Papers* 16 (November 1964): 431-437; and Millard Long, "Interest Rates and the Structure of Agricultural Credit Markets," *Oxford Economic Papers* 20 (July 1968): 275-288.

4

ORGANIZATION AND MANAGEMENT OF THE GRAMEEN BANK

Origin of the Bank

The Grameen Bank originated from a small action-research project undertaken in 1976 by a professor of economics in a village called Jobra, near Chittagong University. The project aimed to test the hypothesis that if financial resources are made available to the poor at reasonable terms and conditions, they can generate productive self-employment without external assistance. The professor had observed that a large proportion of the extremely poor households in the village were engaged in various nonfarm activities with a meager amount of capital borrowed from informal sources. The small size of the loans and the high rate of interest (10 percent a month) did not enable the poor to improve their living standard and accumulate capital of their own.

A local branch of a commercial bank was authorized to provide credit at an interest rate of 13 percent a year. When the professor approached this bank on behalf of the poor, the bank at first refused credit because of lack of collateral. After much persuasion, the bank agreed to provide loans to the poor, but the professor had to guarantee recovery. From this experience came the idea of the action research project and development of an appropriate mechanism for ensuring timely recovery of loans.

To convince the bankers that it was safe to extend credit to the poor without collateral, the professor proposed to the managing director of the agricultural development bank (BKB) that the professor be given the responsibility of operating a branch under the director's guidance. A suboffice of a branch was set up in March 1978 to allow the professor to experiment with his ideas about the appropriate mechanism for delivery of credit to the poor. This pilot experiment was successful, and with financial assistance from the Bangladesh Bank, the Grameen Bank Project was launched in June 1979 to see whether the experiment could be replicated in a wider area.[31] The project was located in Tangail District, far away from Chittagong University, and was tied in with local branches of the nationalized commercial banks and BKB. Within a year, 24 branches were set up—19 in Tangail District and 5 in Chittagong District. The project was further modified and developed through experiments. It ensured 98 percent recovery of loans at due date. But lack of enthusiasm from the participating banks constrained its further expansion. So a loan was arranged from IFAD, and the project was further extended to Dhaka, Rangpur, and Patuakhali districts. Between April 1982 and June 1983, 50 new branches were set up in these five districts.

A government ordinance in September 1983 transformed the project into the Grameen Bank, a specialized financial institution for the rural poor. The ordinance provided for an authorized capital of Tk 80 million[32] and paid-up share capital of Tk 30 million, and an ownership pattern of 60

[31] The objectives behind the Grameen Bank Project are explained in Muhammad Yunus, *Grameen Bank Project in Bangladesh: A Poverty Focussed Rural Development Program* (Dhaka: Grameen Bank, 1982); and Muhammad Yunus, "Experiences in Organising Grass Root Initiatives and Mobilising People's Participation: The Case of Grameen Bank Project in Bangladesh," paper presented at the 25th World Conference of the Society for International Development, Baltimore, Md., 1982.

[32] At the 1986 official rate of exchange, U.S. $1.00 = Tk 30.00.

percent with the government and 40 percent with the borrowers. By an amendment of the ordinance in July 1986, the paid-up share capital was raised to Tk 72 million, of which the Grameen Bank borrower-shareholders would subscribe to 75 percent and the government to 25 percent.

Organizational Structure

The managing director is the chief executive of the bank. The 1983 Grameen Bank ordinance stipulates a board of governors composed of the chairman, the managing director, and nine other members—five appointed by the government and four appointed by the borrower-shareholders. The 1986 amendment of the ordinance provides for 13 members of the board, of which 9 are to be selected from the borrower-shareholders. The board approves the policies of the bank and serves as the link between the bank, the Ministry of Finance, and other government organizations.

The branch office is the lowest administrative unit of the Grameen Bank and is considered the profit-responsibility unit. For accounting purposes, the bank charges 10 percent interest on the funds it lends to branch offices for disbursement to the borrowers at an annual interest rate of 16 percent. Hence a branch office is encouraged to keep its cost of operation at or below 6 percent of the amount of outstanding loans. The amount of profit earned is an important criterion for evaluating the performance of the branch staff. About 10 to 15 branch offices are supervised by an area office, which is usually located in a small town. The area manager is the final authority for approval of loans and supervises loan utilization and recovery with the help of a number of program officers. The area offices are accountable to the zone office located in the district headquarters. The zone manager is responsible for handling accounts and managing funds. Recently the zone office has also taken responsibility for monitoring, evaluating, and supervising the social development programs. A zone manager works in close contact with the area managers, who attend management meetings once or twice a month in the zone office.

The head office, located in Dhaka, basically maintains liaison with the government and provides feedback to lower-level offices. It is also responsible for supervising the training of bank staff and for research and development activities.

Initially there were only the head office and the branch offices. With the increase in the number of branch offices and expansion of the bank in a number of districts, the zone offices were created. Area offices were created when the number of branch offices grew beyond the capacity of a zone office to supervise. As the number of branches increases, the zone grows horizontally, and when it reaches a critical size a new zone is created.

With rapid expansion of the bank, management functions and decisionmaking powers are gradually delegated to lower levels. Most of the functions of the head office were assigned to zone offices when they were established. The zone offices delegated to area offices the power of account supervision and loan approval. Social development programs were initially located at the head office, but authority for these was soon transferred to zone offices, and zone offices are now planning to transfer responsibility for these programs to area offices. In this process of horizontal growth and decentralization of power, the head office becomes a secretariat or information clearinghouse. Ultimately it retains functions such as monitoring and evaluation, research and development, supervision of training, and similar activities that benefit from access to information from different operational areas.[33]

---

[33] For an excellent account of the organizational development and the functions of the bank, see Andreas Fugelsang and Dale Chandler, *Participation As Process—What We Can Learn from Grameen Bank, Bangladesh* (Oslo: Norwegian Ministry of International Development, 1987). This section draws heavily from the report.

Formulation and change of policies are arrived at by a consensual approach through meetings of the managing director with the heads of various departments located in the head office and with zone managers. The managing director meets with the zone managers twice a year to exchange experiences and discuss issues for further development of the bank. The meetings may continue for up to three days. The branch managers are encouraged to try their own ideas in the field, and if successful, to pass them on to higher levels for testing and development and ultimately for replication in other areas. Innovative ideas are also taken from the borrowers when their representatives attend workshops for an exchange of views among themselves and with higher bank officials. A substantial part of the managing director's time is spent traveling in the field to maintain contact with borrowers and with staff of the branch offices.

Mode of Operation

The Grameen Bank now follows standard operational procedures that evolved throughout the 1976-83 period in a process of continuous interaction with the poor. A Grameen Bank branch normally covers an area of about 15 to 20 villages located in a union, or at most two unions, in the vicinity of the branch. The branch is headed by a branch manager and includes six bank workers, an accountant, and one or two bank assistants. A person from a household that owns less than 0.5 acre of cultivated land, or assets with a value equivalent to less than 1.0 acre of medium-quality land, is eligible to receive a loan. (The original project eligibility limit of 0.4 acre of cultivated land was revised upward by the Grameen Bank Ordinance of 1983.) Because most members of the target group are illiterate and are shy about coming to banks, the banking services are brought to their doorsteps. The size of the branch and the area covered is determined by the bank workers' daily travel to maintain contact with the target group. In most cases, because of underdeveloped roads and transport facilities, the bank workers have to walk.

When the Grameen Bank decides to open a branch, the first task of the branch manager is to prepare a socioeconomic report covering the geography, economy, demography, transport and communication infrastructure, and political power structure of the area to be covered by the branch. The bank manager thus becomes acquainted with the locality and the people before starting operation. When the report is approved by the head office, the manager arranges a general public information meeting, inviting all classes of people in the locality. At the meeting the manager introduces bank officials and explains the Grameen Bank's purpose, rules, and programs. The local elites realize that the initiative is for the benefit of the poor only, and the poor understand that in order to receive loans they will have to organize themselves in groups and associations and interact with each other. The bank's operation starts after the meeting.

Interested persons are asked to form groups of five like-minded people of similar economic standing who enjoy mutual trust and confidence. The bank has settled on a group of five through trial and error. Initially, loans were given to individuals, but that quickly proved to be uncontrollable for the staff. Then groups of 10 or more were organized and the idea of mutual responsibility was introduced, but that size turned out to be too large to have the informal relationship among members that is necessary for mutual responsibility to be effective. In the end, five members proved to be the most practical size.[34]

Only one person from a household can be a member,[35] and relatives must not be

[34] Ibid., p. 57.

[35] Initially, a number of persons from the same household could receive loans from the bank, provided they belonged to different groups. But in 1982 the policy was changed in view of the experience that such households faced difficulty in effective utilization of the loans and repayment of installments. The present policy is to provide a loan to only one member of a household, and preferably to a female member.

in the same group. Male and female members form separate groups. Each group elects a chairperson and a secretary, and these positions rotate among members on a yearly basis so that all members have the learning experience that accompanies the responsibilities of these positions. The chairperson is responsible for discipline in the group and for supervision of loan utilization by the members. Members conduct business with a bank worker, through the chairperson, at weekly meetings that all members are obliged to attend.

A number of groups from the same village are federated into a center and the weekly meetings are held at the center level. Again, groups of male and female members form separate centers. The group chairpersons elect a center chief and a deputy center chief, who hold office for one year only. Center chiefs ensure attendance at the weekly meetings, payment of loan installments, and overall discipline, and conduct the program of the meetings. The bank worker attends the center meetings, and all bank business is conducted openly in the meeting in front of the members.

Loans are given to individuals (for a maximum of Tk 5,000) without any collateral. A borrower may use the credit in any productive activity, but the loan has to be used immediately and the principal repaid in 50 weekly installments.

Disbursement of loans is not a simple matter. When a group is formed, it is kept under close observation for a month by the bank worker to see if members are conforming to the discipline of the Grameen Bank. The prospective borrowers are obliged to participate in a group training program for a minimum of seven days of continuous instruction by the bank worker. The training is intended to make the members thoroughly conversant with the rules and regulations of the bank. This includes understanding the purpose of the various bank procedures; the responsibilities of the group chairperson and the center chief; the group savings program; health, children's education, and other social development programs; and learning to make signatures. The group is accorded formal recognition when all members are found to be well versed in the rules and procedures. Two members of the group then receive loans and their loan-repayment behavior is observed for a month or two. If they pay the weekly installments on a regular basis, the next two members become eligible for loans. The group chairperson is the last member to receive a loan. A repeat loan is not approved for any member until the accounts of all members of the group are settled.

The group functions as an institution to ensure mutual accountability. The individual is kept in line by a considerable amount of pressure from other members of the group. The existence of the group thus acts as the collateral for the bank loans. The credibility of the group as a whole and its future benefits in terms of new loans are in jeopardy if one member breaks the discipline and defaults on loan repayments. So groups sometimes decide to fine or to expel a member who fails to attend a meeting and willfully defaults on payment of installments. Other members of the group also extend financial support to a member in times of genuine difficulty when the member cannot pay the installment. A member may leave the group when the loan is fully repaid; if a member leaves earlier, the responsibility for paying the balance falls to the remaining group members. When an entire group defaults, the responsibility of repayment falls to the center.

One of the regulations of the Grameen Bank is that each member must save one taka every week besides 5 percent of the loan amount, which is kept aside at the time of disbursement. The savings are accumulated in the Group Fund. This account is managed by the group on a consensual basis, thus providing the members with an essential experience in the collective management of finances. A member who leaves a group is entitled to withdraw the personal weekly savings accumulated in the fund, but cannot reclaim the 5 percent deducted from the loans. When forming a group, all members sign an agreement to that effect. The amount collected from fines imposed on members for breach of discipline is also accumulated in the Group Fund for the benefit of all members. This amount is deposited with Grameen Bank at 8.5 percent annual interest.

A member can borrow from the Group Fund for consumption at times of sickness or social ceremony, so that it is not necessary to take these expenses out of capital or go back to the informal markets for such loans. Group Fund loans for investment are also allowed if all members of the group agree. The group decides the terms and conditions of these loans, which are normally granted interest-free.

It is often argued that the poor value credit from informal sources more highly than from financial institutions because they perceive the informal lender as a permanent and reliable source available to finance consumption as well as production expenses.[36] By creating the Group Fund, the Grameen Bank has ensured the same flexibility in its credit services as in the informal markets.

Each borrower is also obliged to pay a sum equivalent to 25 percent of the amount charged by the bank as interest. This amount is accumulated in the Emergency Fund created for insurance coverage in case of default, death, disability, or other unforeseen events. This fund is managed by members at the center level and requires the joint signatures of the center chief, deputy center chief, and bank manager for its operation. On behalf of a member, the group can claim from the Emergency Fund up to Tk 2,500, or 50 percent of the amount accumulated by the member, whichever is less. The disbursements from the Emergency Fund have so far been negligible. The bank is studying various plans for effective utilization of the fund.

Beginning in 1984, a social development program called "Sixteen Decisions" was introduced by the bank to imbue members with discipline, unity, and hard work and to improve their living standard. These decisions include certain codes of conduct that members are encouraged to follow in their daily life, such as production of fruits and vegetables in kitchen gardens, investment for improvement of housing and education of children, use of latrines and safe drinking water for better health, and rejection of dowry in marriages (see Figure 2). Physical training and parades are held in weekly center meetings for both men and women, and the "Sixteen Decisions" are chanted as slogans. The bank management says that observance of these decisions—including participation in physical training and parades—is not compulsory, but in the field their observance has become a requirement for receiving a loan.

With the introduction of "Sixteen Decisions," the Grameen Bank has moved into an overall development program for the poor. Credit has been an entry point and now serves as a catalyst in the development process. The managing director, however, emphasizes the bank's interest in the social development program. In the long run, better housing and sanitation, and increased consumption of vegetables and fruits improve the health of the borrower, increase his productivity and income, and hence ensure better recovery of loans. Development of kitchen gardens provides a regular source of income from which the borrower can partly finance the weekly installments. Dowry constitutes the greatest risk of default in repaying loans, as the poor borrower is under compulsion to use capital to finance it. The bank is working hard to do away with this social ill and the attendant economic burden on its members. Recently, children's education has been promoted through active help in establishing center schools, distributing textbooks, and setting up children's savings and funds, since basic skills in reading, writing, and arithmetic are required for increasing the productivity of labor.

[36] C. B. Baker, "Role of Credit in the Economic Development of Small Farm Agriculture," in U.S. Agency for International Development, *Small Farmer Credit: Analytical Papers,* vol. 19, SR 119 (Washington, D.C.: USAID, 1973), pp. 41-70.

Figure 2—The "Sixteen Decisions" program

Sixteen Decisions

1. The four principles of Grameen Bank—discipline, unity, courage, and hard work—we shall follow and advance in all walks of our lives.
2. We shall bring prosperity to our families.
3. We shall not live in dilapidated houses. We shall repair our houses and work towards constructing new houses as soon as possible.
4. We shall grow vegetables all the year round. We shall eat plenty of them and sell the surplus.
5. During the planting seasons, we shall plant as many seedlings as possible.
6. We shall plan to keep our families small. We shall minimize our expenditures. We shall look after our health.
7. We shall educate our children and ensure that they can earn enough to pay for their education.
8. We shall always keep our children and the environment clean.
9. We shall build and use pit latrines.
10. We shall drink tubewell water. If it is not available, we shall boil water or use alum.
11. We shall not take any dowry in our sons' weddings, neither shall we give any dowry in our daughters' weddings. We shall keep the center free from the curse of dowry. We shall not practice child marriage.
12. We shall not inflict any injustice on anyone, neither shall we allow anyone to do so.
13. For higher income we shall collectively undertake bigger investments.
14. We shall always be ready to help each other. If anyone is in difficulty, we shall all help.
15. If we come to know of any breach of discipline in any center, we shall all go there and help restore discipline.
16. We shall introduce physical exercise in all our centers. We shall take part in all social activities collectively.

Source: Kamal Siddiqui, *An Evaluation of the Grameen Bank Operation* (Dhaka: National Institute of Local Government, 1984).

Note: Formulated in a National Workshop of 100 female center chiefs in March 1984, "Sixteen Decisions" might be called the social development constitution of Grameen Bank. All Grameen Bank members are expected to carry out these decisions.

Loan Approval and Supervision of Loan Utilization

Investment alternatives are discussed by members of a group in the weekly center meetings. When the group members and the bank worker are convinced of the viability of a potential loan, the center chief initiates the loan approval process by filling in a loan proposal form, signing it, and giving it to the bank worker, who makes a recommendation on the loan and passes it to the branch manager with the proposal form. After consulting with colleagues about a number of loan proposals and checking the viability of the loan amounts through field visits if necessary, the branch manager consolidates the individual loan proposals into a single proposal and submits it, along with the individual proposals, to the program officer in the area office. On the recommendation of the program officer, the area manager gives the final authorization necessary for releasing a loan, which is then disbursed by the bank worker in the center meeting. The whole process normally takes about one to two weeks from group discussion of an individual loan proposal to disbursement of the loan. The borrower does not have to deal with the bank staff for the loan, as would be required in other banks.

Once a loan is approved, the branch manager issues the money along with a loan passbook. The loan is given for one year and is to be repaid in 50 equal weekly installments of 2 percent of the loan amount. The 50 installments cover repayment of the principal. The interest on the loan and the contribution to the Emergency Fund are collected in the remaining two weeks of the year. The bank worker collects the weekly installment in center meetings, which take place early in the morning on a fixed day each week, and records the installment in the loan passbook of the member. The rate of interest on the loan is 16 percent a year—the same rate charged for agricultural loans by other banks in the country. The interest payment, however, comes to 8.12 percent of the loan, since the repayment is amortized over 50 weeks.

It is a regulation of the Grameen Bank that a borrower must invest the money within seven days of receipt for the purpose specified in the loan proposal. The procedure for monitoring the loan utilization starts with the group chairperson, who signs a loan utilization form and forwards it to the center chief. The center chief passes the form to the bank worker, who checks on the utilization of the loan and provides a written description of the type of investment. The bank worker sends the form, along with the description, to the branch manager, who is responsible for personally checking 50 percent of the cases at random. Once satisfied through field visits, the branch manager signs the form and forwards it to the program officer, who is the ultimate authority for supervision of loan utilization. If a loan cannot be used immediately, the borrower is advised to give the money back to the branch office and claim it when ready. In this way the borrower can avoid weekly installments and interest on the loan while it is idle.

Thus, recovery of loans is ensured by tight supervision of loan utilization by the bank staff and by mutual responsibility in the group and the center. In the event of default, there is no collateral that the bank can resort to and there is a high risk that the loan will become a bad debt. But this does not happen in practice, because a potential defaulter is singled out at the very beginning by fellow members of the group. If, because of unusual circumstances, a member fails to pay the installments, fellow members will usually contribute the money, while making it a private matter to collect from the defaulting member. Such group behavior is also facilitated by the regulation that in case of default by a member, the group will be ineligible for repeat loans.

Training and Workshops

An important factor behind the success of the Grameen Bank is its intensive field-oriented training of bank staff. Branch managers and bank workers are directly recruited, the former from recent university graduates and the latter from intermediate college graduates (12 years of schooling). The personnel at higher levels are mostly promoted from among the branch managers on the basis of performance and experience. Most officials in the area, zone, and head offices have been previously trained in, and have worked in, rural areas for a long time before taking their present positions. Thus, branch managers and bank workers are Grameen Bank's target groups for training.

One training course for branch managers lasts for about six months, of which only three weeks are spent in classroom courses at the training institute in the head office. The training begins with a two-day overview course in which the trainer introduces various banking forms that the trainee will have to master. The trainee is then sent to the field and attached to a branch office for 24 weeks, in three periods of 8 weeks. After both the first and second field visits, one week is spent in classroom courses at the training institute.

The objective of the training is to provide the trainee with (1) an understanding of the social and economic milieu and the constraints within which the Grameen Bank has to operate; (2) the capacity to identify the target clientele group, organize and motivate them, and prepare them to receive the bank's services; (3) an understanding of how to process loan applications and assist center chiefs in conducting meetings, collecting various dues, and preparing source vouchers for bank accounts; and (4) the ability to manage branch administration and accounts and to supervise loan recovery. The curriculum consists of 50 topics, including group and center organization, operation of the group and loan funds, loan-processing procedures, deposit-banking, accounts maintenance, record keeping, branch accounting, fund management, group dynamics, and maintenance of various forms, ledgers, and registers.[37]

During the first eight weeks in the field, each trainee must prepare detailed case studies of two borrowers, describing the life history of each and how their lives have changed as a result of intervention by the bank. Information about the wage rate, seasonal pattern of labor demand, terms and conditions of tenancy and the informal credit market, and prices of essential commodities for the locality is also collected. In the course of this exercise the trainee becomes acquainted with the magnitude of poverty in the area, grows to understand the process that generates it, and finds the rationale for and importance of a bank worker's task. After completion of this phase, the trainee returns to class at the training institute for a week. The class usually comprises 30 trainees drawn from 30 branches throughout all five zones. The main emphasis in the class is on discussing and questioning each other's experiences in their various fields of operation. For subsequent phases of field training, tasks are assigned to facilitate understanding of group dynamics, branch operations, and supervision and management of loan utilization and recovery. By the end of the training period, each trainee must have visited at least 15 centers and have followed up the loan utilization of two to three borrowers in each of the centers. After successful completion of training, appointments are confirmed and each new staff member is assigned to a different branch. Often new staff will have to open a branch on their own. Before departing for their new posts, new branch managers are advised by their trainers to build a branch better than the one in which they were trained.

It is apparent from the above discussion that the branch office takes substantial responsibility for training staff. Branch managers are considered responsible for producing good trainees. Part of their duty is to see that the trainees complete their assignments. If the trainees perform poorly, the branch manager is held responsible—and this is one of the factors taken into considera-

[37] Grameen Bank, "Annual Progress Report: 1986." Grameen Bank, Dhaka, 1987 (mimeographed).

tion for promotion of branch managers. The managers who are best able to assist and motivate the trainees are chosen for promotion as trainers. This promotion system shows the priority that the Grameen Bank attaches to the education of its personnel.

Such intensive training helps to build a dedicated cadre of bank employees. New recruits who find the Grameen Bank work difficult and not suited to their life-style leave the bank during training. Nearly a quarter of the staff drop out at this stage, but the dropout rate after final posting is insignificant.

In 1986 the training program accounted for one-fifth of the bank's operating expenses (excluding the cost of loan funds). A total of 2,118 officers and staff (7 per existing branch) were inducted for training; 26 percent dropped out, 33 percent were carried over for further training in the next course, and the remaining 41 percent were assigned final posting.

The Grameen Bank also organizes a number of workshops and exchange visits for borrowers, center chiefs, and bank staff to disseminate new ideas and experiences. In the workshops, participants discuss various problem-solving devices and approaches and build up amity and cooperation among themselves. During 1986, 334 workshops were organized and these were attended by 10,484 persons, 79 percent of whom were borrowers and center chiefs. The major responsibility for planning and implementation of workshops is carried out by the zone, area, or branch offices, according to the type of workshop.

A national workshop for women borrowers is held every two years and is attended by the managing director and the senior officers of the Grameen Bank. Fourteen women borrowers, two social development officers, and three bank workers from each zone are selected to participate in the workshop.[38] The workshop lasts for four to five days, during which experiences in various social development programs are discussed and modifications suggested. The current "Sixteen Decisions" program is an outcome of the national workshop held in 1984.

[38] Fugelsang and Chandler, *Participation As Process,* p. 129.

5

PROGRESS OF BANK OPERATIONS

Expansion of Coverage

When the Grameen Bank began its operation as a specialized financial institution in October 1983, it had 75 branches in 5 of the 21 old districts of Bangladesh. The bank continues to operate only in those five districts but has vastly expanded its coverage. By the end of February 1987 it had 298 branches. The Bangladesh Krishi Bank, the agricultural development bank established in the early 1960s to provide agricultural credit, had 992 branches covering the entire country at the end of 1986.

The districts covered by the Grameen Bank constitute 25 percent of the area, 27 percent of the rural households, and 30 percent of the population of Bangladesh. These districts are similar to the rest of the country in population pressure, landlessness, and agricultural productivity and growth. For example, in 1983/84, the proportion of Grameen Bank target-group households was 49 percent in these districts, compared with 45 percent for Bangladesh; the proportion of cultivated area irrigated was 22 percent, compared with 20 percent for Bangladesh; and the annual growth rate of crop output during 1976-85 was 3.0 percent, compared with 2.9 percent for Bangladesh (Table 4).

The presence of the Grameen Bank is conspicuous in the five districts of its operation (see Table 5). It has covered more than 29 percent of the villages in these districts, varying from 19 percent in Dhaka to 55 percent in Patuakhali. It has organized nearly 250,000 households in 11,000 centers. In the districts of Patuakhali and Tangail, it has covered more than 25 percent of the target group (households holding less than 0.5 acre of land), and throughout all five districts, about 13 percent of the target group. This compares favorably with the estimate that only 14 percent of rural households received credit from all institutional sources during 1982 (Table 3). In the coun-

Table 4—Selected characteristics of the districts covered by the Grameen Bank

District	Population per Square Kilometer, 1981	Land Owned per Household, 1983/84	Land Operated per Farm,[a] 1983/84	Share of Landless Households,[b] 1983/84	Growth Rate of Crop Output, 1976-85	Share of Cultivated Area Irrigated, 1983/84
		(acres)	(acres)		(percent)	
Chittagong	760	0.99	1.93	58.1	2.5	37.1
Tangail	743	1.63	2.22	40.2	4.8	31.2
Dhaka	1,384	1.19	1.80	52.4	2.3	23.7
Rangpur	700	1.65	2.52	44.1	3.4	19.8
Patuakhali	463	1.98	3.36	47.1	1.8	2.1
All Grameen Bank districts	848	1.41	2.37	49.3	3.0	22.4
Bangladesh	624	1.63	2.59	44.8	2.9	19.9

Sources: Compiled from Bangladesh, Bureau of Statistics, *Final Report of Bangladesh Population Census, 1981: Analytical Findings and National Tables* (Dhaka: Government Press, 1984); Bangladesh, Bureau of Statistics, *The Bangladesh Census of Agriculture and Livestock: 1983-84,* vol. 1 (Dhaka: Government Press, 1986); and Bangladesh, Bureau of Statistics, *1986 Statistical Yearbook of Bangladesh* (Dhaka: Government Press, 1986).

[a] Excludes households operating less than 0.5 acre.

[b] Includes households operating less than 0.5 acre.

Table 5—Coverage of the Grameen Bank, February 1987

District	Number of Branches Under Operation	Number of Villages Covered	Share of Villages Covered	Number of Centers Organized	Number of Members Enlisted		Share of Target Group Households Covered[a]
					Male	Female	
			(percent)				(percent)
Chittagong	52	749	39.1	1,918	10,307	31,887	9.3
Tangail	57	1,201	48.6	2,139	16,440	29,926	27.6
Rangpur	72	1,322	24.1	2,635	16,786	45,524	11.7
Dhaka	72	1,422	18.9	2,444	12,185	41,198	8.2
Patuakhali	45	758	54.5	1,698	4,813	37,892	29.2
Bangladesh	298	5,452	6.4	10,834	60,531	186,427	4.0

Sources: Grameen Bank, *Consolidated Cumulative Statement as of February 28, 1987* (Dhaka: Grameen Bank, 1987); and Bangladesh, Bureau of Statistics, *The Bangladesh Census of Agriculture and Livestock: 1983-84*, vol. 1 (Dhaka: Government Press, 1986).

[a] Estimated from the number of households operating less than 0.5 acre, reported in the 1983-84 agricultural census. It is assumed that the number of households in this category grew at 2.0 percent a year.

try as a whole, the Grameen Bank has reached more than 6 percent of the villages and 4 percent of the target-group households (Table 5).

The progress in disbursement of credit, recovery of loans, and savings in the Group Fund and Emergency Fund is seen in Table 6. By the end of 1986, Tk 1,470 million had been disbursed, of which Tk 1,169 million had already been recovered. The amount disbursed each year increased from Tk 99 million in 1983 to Tk 542 million in 1986. Over the last three years, the amount disbursed increased by an average of 33 percent a year. The disbursement is now financed largely with the revolving fund, that is, the amount recovered from the borrowers. The amount recovered from them increased from Tk 59 million in 1983 to Tk 466 million in 1986. The additional disbursement over recovery in 1986 was Tk 76 million, which is only 16 percent of the total amount recovered in that year, compared with 68 percent in 1983 and 52 percent in 1984.

Table 6—Trends in disbursement and recovery of loans and accumulation in Group Fund and Emergency Fund, 1979-86

Activities	1979-82	1983	1984	1985	1986
			(thousand persons)		
Members enlisted	30	28	63	51	63
Total members[a]	30	58	121	172	235
			(Tk million)		
Amount of credit disbursed	96.0	99.0	304.0	429.0	542.0
Amount of credit recovered	64.0	59.0	200.0	380.0	466.0
Additional disbursement over recovery	32.0	40.0	104.0	49.0	76.0
Cumulative amount disbursed[a]	96.0	195.0	499.0	928.0	1,470.0
Cumulative amount recovered[a]	64.0	123.0	323.0	703.0	1,169.0
Outstanding loans[a]	32.0	72.0	176.0	225.0	301.0
Cumulative savings in Group Fund[a]	8.1	15.9	37.9	71.4	114.5
Cumulative savings in Emergency Fund[a]	1.5	3.4	6.3	12.7	22.3

Sources: Grameen Bank, *Annual Report, 1985* (Dhaka: Grameen Bank, 1986); and Grameen Bank, *Consolidated Cumulative Statement as of December 31, 1986* (Dhaka: Grameen Bank, 1987).

[a] The figures are for the end of the calendar year.

The size of the bank's business is indicated by the total amount of outstanding loans with borrowers (the interest is charged on this amount). This total increased from Tk 72 million at the end of 1983 to Tk 301 million at the end of 1986, a rate of increase of 62 percent a year.

The amount accumulated in the Group Fund swelled from Tk 16 million at the end of 1983 to Tk 115 million by the end of 1986. The amount of savings per member was Tk 487, which is about 11 percent of the average per capita income for the country in 1985/86. In Tangail District, where most of the old branches are located, average savings per member at the end of 1986 stood at Tk 720—about 16 percent of the per capita income. By the end of 1986, the amount of savings in the Group Fund was 38 percent of the amount outstanding with the borrowers.

The Group Fund is constituted by a 5 percent compulsory deduction from each loan and a Tk 1.00 weekly contribution by each member. By the end of 1986, the Grameen Bank had disbursed a cumulative amount of Tk 1,470 million, so the compulsory (nonrefundable) deduction amounted to Tk 73.5 million. The borrowers' own savings in the Group Fund totaled 41 million, which they are entitled to withdraw when they leave the group. This part of the savings is equivalent to about 13.6 percent of the amount of outstanding loans.

The accumulation in the Emergency Fund also increased rapidly during 1983-86, from Tk 3.4 million to Tk 22 million. This fund is constituted by an additional contribution from each member of 25 percent of the interest charged on the loan, which comes to about 8 percent of the principal. Thus 2 percent of the amount recovered is deposited to the fund if the bank succeeds in collecting the interest due on the loan. By the end of 1986, Tk 1,169 million had been recovered from the borrowers, which meant that Tk 23.4 million was due to be deposited in the Emergency Fund. The accumulation in the fund was about 95 percent of this amount, and more than 7.4 percent of the loans outstanding with the borrowers, which shows the strength of the Grameen Bank in handling potential situations of bad debt.

An important characteristic of the bank is its rapidly expanding coverage of women. In Bangladesh, women generally do not participate in economic activities outside the home. A 1983/84 labor force survey estimated that only 9 percent of the labor force in Bangladesh were women.[39] But a large proportion of women, particularly in the lower-income groups, engage in various expenditure-saving activities within the household, such as food processing, kitchen gardening, goat and poultry raising, and manufacturing of various household needs (for example, quilts, rope, and nets). Women are attracted to the Grameen Bank because, with credit, they can extend the scale of such activities and turn them into income-earning activities for the household. The bank management argues that women borrowers are more careful with the capital and are more disciplined; hence the bank prefers to give credit to a female rather than a male worker in the household.[40]

Although less than 10 percent of the women in Bangladesh participate in the labor force, by as early as 1980, 39 percent of the Grameen Bank Project members were women. The coverage of women increased rapidly after the bank started operating as a specialized institution (see Table 7). By the end of 1986, about 75 percent of Grameen Bank members were women and they had 69 percent of the outstanding loans. In Patuakhali district, women were 89 percent of total members by February 1987 (Table 5).

Table 7 shows that the bank currently mobilizes mostly women members. Out of 62,751 new members enlisted during 1986,

---

[39] Bangladesh, *Labor Force Survey, 1983-84.*

[40] For a detailed study of women's participation in the rural labor market, see Rushidan Islam Rahman, *The Wage Employment Market for Rural Women in Bangladesh,* Research Monograph 6 (Dhaka: Bangladesh Institute of Development Studies, 1986).

Table 7—Trends in membership and borrowing, by sex of borrower, 1983-86

Year	Members Enlisted[a] Male	Female	Female as Share of Total	Amount of Outstanding Loans with Members Male	Female	Female as Share of Total
	(thousands)		(percent)	(Tk million)		(percent)
1983	32	26	45	44	28	39
1984	53	68	56	89	88	50
1985	59	113	66	91	134	60
1986	61	174	74	92	209	69

Sources: Grameen Bank, *Annual Report,* 1984, 1985 (Dhaka: Grameen Bank, 1985, 1986); and Grameen Bank, *Consolidated Cumulative Statement as of December 31, 1986* (Dhaka: Grameen Bank, 1987).
[a] The figures are cumulative.

61,523 (98 percent) were women. In the same year, the bank disbursed Tk 542 million, of which female borrowers received 72 percent. The total of outstanding loans with borrowers at the end of 1986 increased by Tk 76 million over the total amount at the end of 1985; the increase for female borrowers was Tk 75 million. Thus the Grameen Bank has turned into a bank for rural poor women.

Loan Portfolio

The annual reports of the Grameen Bank list more than 300 activities for which credit is extended.[41] These activities can be grouped under five broad sectors: crop farming and forestry, livestock and fisheries, processing and manufacturing, trading and shopkeeping, and transport and other services. Since 1982, credit has also been extended to groups consisting of a number of members for collective enterprises such as the purchase of shallow tubewells, power pumps, rice hullers, and oil mills and leasing of land, ponds, and markets.

The share of different sectors in total loans disbursed up to 1986 is shown in Table 8. The important point to note is that the bank basically finances noncrop agricultural and nonfarm activities. Crop cultivation and forestry accounted for only 2.2 percent of the loans disbursed in 1986, though the share of this sector has increased over time. As discussed below, most of the loans disbursed under collective enterprises are taken for crop cultivation, and a part of the loans taken for other activities is also diverted to crop cultivation. Even after accounting for these, the share of Grameen

Table 8—Trends in disbursement of loans, by sector, 1979-86

Sector	1979-83	1984	1985	1986
	(percent of total loans)			
Crop cultivation and forestry	1.5	1.6	2.2	2.2
Livestock, poultry raising, and fisheries	24.7	30.6	36.9	45.7
Processing and manufacturing	25.2	22.2	24.6	25.0
Trading and shopkeeping	39.7	32.9	28.1	23.1
Transport operations and other services	7.0	4.5	3.2	2.6
Collective enterprises	1.9	8.2	5.1	1.4

Sources: Grameen Bank, *Annual Report,* various issues (Dhaka: Grameen Bank, various years); and Grameen Bank, "Annual Progress Report, 1986," Dhaka, Grameen Bank, 1987 (mimeographed).

[41] Grameen Bank, *Annual Report,* various issues (Dhaka: Grameen Bank, various years).

Table 9—Disbursement of loans to male borrowers, by sector, 1979-86

Sector	1979-83		1984		1985		1986	
	Amount of Loans	Share of Loans	Amount of Loans	Share of Loans	Amount of Loans	Share of Loans	Amount of Loans	Share of Loans
	(Tk million)	(percent)	(Tk million)	(percent)	(Tk million)	(percent)	(Tk million)	(percent)
Crop cultivation and forestry	2.32	1.8	3.06	2.0	4.48	2.7	4.55	3.0
Livestock, poultry raising, and fisheries	19.76	15.4	25.32	16.6	33.09	20.0	32.70	21.8
Processing and manufacturing	21.39	16.7	19.35	12.7	21.46	13.0	20.59	13.8
Trading and shopkeeping	67.95	52.9	76.15	50.1	82.85	50.1	77.64	51.9
Transport operations and other services	13.49	10.5	12.63	8.3	11.85	7.2	11.29	7.5
Collective enterprises	3.49	2.7	15.63	10.3	11.75	7.1	2.94	2.0
All sectors	128.40	100.0	152.14	100.0	165.48	100.0[a]	149.71	100.0

Sources: Grameen Bank, *Annual Report,* 1984, 1985, 1986 (Dhaka: Grameen Bank, 1985, 1986, 1987).
[a] Parts do not add to total because of rounding.

Bank loans for crop cultivation has never been more than 6 percent.

In the initial years, trading and shopkeeping received the largest proportion of loans. With the expansion of the bank, however, the share of this sector has been reduced drastically—from about 40 percent during 1979-83 to 23 percent in 1986. The absolute amount of loans issued for trading and shopkeeping increased only marginally from Tk 120 million in 1985 to Tk 125 million in 1986, while total disbursement increased from Tk 429 million to Tk 542 million. The share of the livestock and fisheries sector increased rapidly from 25 percent during 1979-83 to 46 percent in 1986. The change is, however, mainly due to the expanding coverage of women, as women take a much smaller proportion of loans for trading and shopkeeping than do men. In 1986, 71 percent of the loans were issued for livestock raising and for rural processing and manufacturing activities.

The purpose for which the loan is taken differs significantly according to the sex of the borrower. Nearly half of the loans issued to men are disbursed for trading and shopkeeping activities, while a similar proportion of loans to female members is disbursed for livestock and poultry raising (see Tables 9 and 10). The share of different sectors in total loans disbursed to men and women has remained relatively stable over the years, except that the share for livestock has increased marginally at the expense of the processing and manufacturing sector. For all members, however, there has been a significant change in the sectoral shares of loans for livestock and fisheries at the expense of trading, and transport and other services (Table 8) because of the rapidly expanding coverage of female members. Women are little involved in trading and transport operations because those jobs have to be done outside the home. When women take loans for trading, they usually engage in shopkeeping within the household. Since the Grameen Bank is now concentrating its efforts on organizing poor women, nearly four-fifths of total loans in the future may go to the livestock and manufacturing sectors.

Individual activities that received more than 1 percent of the loans during 1983-85 are listed separately for male and female borrowers in Tables 11 and 12, respectively.

Table 10—Disbursement of loans to female borrowers, by sector, 1979-86

Sector	1979-83 Amount of Loans	1979-83 Share of Loans	1984 Amount of Loans	1984 Share of Loans	1985 Amount of Loans	1985 Share of Loans	1986 Amount of Loans	1986 Share of Loans
	(Tk million)	(percent)	(Tk million)	(percent)	(Tk million)	(percent)	(Tk million)	(percent)
Crop cultivation and forestry	0.63	1.0	1.90	1.2	4.87	1.9	7.35	1.9
Livestock, poultry raising, and fisheries	28.47	42.8	67.77	44.5	124.80	47.5	215.07	54.9
Processing and manufacturing	27.81	41.8	48.10	31.6	83.90	31.9	114.88	29.3
Trading and shopkeeping	9.39	14.1	23.94	15.7	37.41	14.2	47.22	12.0
Transport operations and other services	0.07	0.1	1.19	0.8	1.96	0.7	2.95	0.8
Collective enterprises	0.15	0.2	9.32	6.1	10.03	3.8	4.55	1.2
All sectors	66.52	100.0	152.22	100.0[a]	262.97	100.0	392.02	100.0[a]

Sources: Grameen Bank, *Annual Report,* 1984, 1985, 1986 (Dhaka: Grameen Bank, 1985, 1986, 1987).
[a] Parts do not add to total because of rounding.

The activities pursued by male members are diverse, particularly in the trading and processing sectors. The 20 major activities listed in Table 11 accounted for about 84 percent of the loans disbursed in 1985. The share of these 20 activities in total loans increased rapidly during 1983-85, indicating a gradual concentration of loans in the traditional activities. Four activities—cattle fattening, seasonal crop trading, milch cow raising, and paddy and rice trading—accounted for 39 percent of total loans issued in 1985, an increase from 29 percent in 1983.

The activities pursued with the Grameen Bank credit are less diverse for the female borrowers. The 14 activities listed in Table 12 accounted for 91 percent of total loans disbursed up to the end of 1985, but 3 activities—milch cow raising, paddy husking, and cattle fattening—accounted for 70 percent of total loans. Women also took a significant proportion of loans for traditional cottage industries such as handloom weaving, cane and bamboo works, mat making, fishing-net making, and tailoring.

In the initial years, the majority of loans issued by the Grameen Bank were for trading activities. This concentration attracted criticism from various circles. It was argued that excessive credit for this sector would be inflationary, since the circulation of the additional money would not be counterbalanced by an increase in production activity. Also, the larger volume of credit for trading, unless associated with a concomitant increase in production, would keep the volume of trade unchanged and would merely redistribute employment and income from nonmembers to members. It has been noted that the share of the trading sector in Grameen Bank loans had declined over time, but it still accounted for about 23 percent of total loans disbursed in 1986 (Table 8). In order to answer the criticism, some justifications for the trading sector loans are in order.

To examine the linkage of trade with the rural economy, trading activities were classified into a number of subsectors according to the origin of the commodity traded, and an estimate was made of the share of each subsector in total loans disbursed for trading and shopkeeping during 1980-85 (see Table 13). Trading was found to have a strong linkage with rural production activities such as crops, livestock, and fisheries,

Table 11—Major activities for which male borrowers took loans, 1983-85

Sector/Activity	Share of Total Loans Disbursed 1983	1984	1985
	(percent)		
Trading and shopkeeping			
Seasonal crop trading	5.1	8.5	10.5
Paddy and rice trading	9.0	10.3	8.4
Grocery and stationery shop	5.7	5.6	6.6
Cattle and goat trading	3.2	4.9	4.6
Handloom products trading	2.6	1.8	2.9
Cloth trading	1.7	1.8	2.9
Fish trading	2.2	2.1	2.3
Wood and timber trading	1.7	1.6	1.9
Peddling	2.1	1.7	1.9
Vegetable trading	1.2	1.6	1.5
Betel leaf and betel nut trading	0.8	1.0	1.4
Flour trading	1.7	1.7	1.2
Mustard seed trading	1.3	1.2	1.0
Gur (raw sugar) trading	1.1	1.2	0.9
Livestock and fisheries			
Cattle fattening	8.5	10.0	11.4
Milch cow raising	6.4	7.4	8.9
Processing and manufacturing			
Paddy husking	4.4	3.9	4.3
Handloom weaving	3.2	2.9	2.9
Transport and services			
Rickshaw pulling	5.8	5.9	5.3
Farming			
Crop cultivation	1.4	2.2	2.9
All major activities	69.1	77.3	83.7

Sources: Compiled from Grameen Bank, *Annual Report*, 1984, 1985 (Dhaka: Grameen Bank, 1985, 1986).

the trading of which received about 57 percent of trading sector loans. Trading of cottage industry products located in rural areas received another 8 percent of the loans. Among the major crops traded are paddy and seasonal agricultural produce such as pulses, oilseeds, and vegetables. Since these commodities face large seasonal fluctuations in price, some of the Grameen Bank loans may in fact be used for seasonal storage to take advantage of higher prices later. Widespread small-scale storage may have positive income distribution effects and may also improve the working of the rural commodity markets by reducing price fluctuations.

It should also be recognized that widespread petty trading may not necessarily replace large-scale trading in the organized sector. A major constraint for large-scale traders to move into interior areas is the high unit cost of transport due to underdeveloped infrastructure facilities.[42] The advantage of the petty traders is that the small amounts they trade can be carried as headloads. The environment of underdeveloped trading and transport sectors induces rural households in interior areas to engage more in subsistence-oriented production. Provision of credit for petty trading may thus induce production for the market and in-

Table 12—Major activities for which female borrowers took loans, 1983-85

Sector/Activity	Share of Total Loans Disbursed 1983	1984	1985
	(percent)		
Trading and shopkeeping			
Paddy and rice trading	3.7	3.7	3.7
Grocery and stationery shops	4.3	4.0	3.7
Peddling	0.7	1.1	1.2
Flour trading	1.8	1.5	1.2
Livestock and fisheries			
Milch cow raising	29.1	33.1	36.3
Cattle fattening	11.0	12.3	10.9
Goat and poultry raising	2.9	1.9	2.0
Processing and manufacturing			
Paddy husking	23.3	25.0	22.6
Cane and bamboo works	3.1	2.0	2.5
Handloom weaving	3.5	1.8	1.8
Mat making	1.4	1.6	1.8
Cheera and muri (rice products)	2.3	1.9	1.3
Tailoring	1.8	1.2	1.2
Fishing-net making	0.8	1.2	1.0
All major activities	89.7	92.3	91.2

Sources: Compiled from Grameen Bank, *Annual Report*, 1984, 1985 (Dhaka: Grameen Bank, 1985, 1986).

[42] The unit cost of transport for bullock carts that operate on dirt roads in interior areas is about seven times higher than the cost for trucks that operate on paved roads. The average unit cost of transport for all traffic is estimated at 2.3 times higher on a dirt road than on a paved road in the same locality. See Omar H. Chowdhury and Mahabub Hossain, "Roads and Development: A Case Study of Return on Investment in Rural Roads in Bangladesh," Bangladesh Unnayan Parishad, Dhaka, December 1985 (mimeographed).

Table 13—Distribution of trading sector loans, by origin of commodities, 1979-85

Sectoral Origin of Commodities	1979-83 Amount of Loans	1979-83 Share of Loans	1984 Amount of Loans	1984 Share of Loans	1985 Amount of Loans	1985 Share of Loans
	(Tk 1,000)	(percent)	(Tk 1,000)	(percent)	(Tk 1,000)	(percent)
Crop cultivation	28,590	37.0	46,392	46.4	54,886	45.6
Livestock, poultry raising, and fisheries	12,479	16.1	13,240	13.3	13,514	11.2
Forestry	2,519	3.3	3,130	3.1	3,865	3.2
Agricultural inputs	886	1.1	567	0.6	612	0.5
Rural industry	8,712	11.3	10,284	10.3	9,770	8.1
Urban industry	9,524	12.3	7,347	7.3	11,399	9.5
Trading	62,710	81.1	80,960	80.9	94,046	78.2
Peddling	3,553	4.6	3,863	3.9	5,886	4.9
Shopkeeping	11,087	14.3	15,260	15.2	20,365	16.9
Total	77,350	100.0	100,083	100.0	120,297	100.0

Sources: Constructed from Grameen Bank, *Annual Report*, 1984, 1985 (Dhaka: Grameen Bank, 1985, 1986).

crease the volume of trade. Petty traders would operate in interior areas and carry goods to secondary markets well connected by roads, rail, or waterways, from where the business would be taken over by large traders. In this sense, provision of credit for petty trading can facilitate the development of markets and thereby increase the volume of both local production and trade.

Of course, the demand for trade services will increase over time because of the linkage effects of agricultural growth and rapid movement of rural population to urban areas (discussed in Chapter 3 in the context of the role of institutional credit in alleviation of poverty). Gradual diffusion of new technology in agriculture increases the labor productivity and household income of farmers and provides effective demand for a range of goods and services that are most effectively produced in rural areas by small-scale producers.[43] Grameen Bank loans for livestock raising and for processing and manufacturing activities are in fact supporting such activities. But the diffusion of technology also increases the demand for trading services to permit greater movement of both farm and nonfarm goods from producers to consumers. In order to allow the relatively poor people to gain from the dynamic process of development, access to working capital for trading is necessary. The bank's effort to provide the poor with access to credit for trading activities is thus highly desirable.

Collective Enterprises

In 1982 the Grameen Bank started providing large loans to a cooperative body consisting of a number of groups or centers for the joint undertaking of collective enterprises. A loan to an individual is limited to a maximum of Tk 5,000, but loans for collective enterprises are usually from Tk 50,000 to Tk 100,000. In a few cases, loans up to Tk 500,000 have been approved. The bank considers loans for collective enterprises to be one of its major areas of expansion for the benefit of the poor and for reducing the costs of operation.[44] The main objectives of these loans are to enable members to reap economies of scale in their activities, to

[43] John W. Mellor and Uma Lele, "Growth Linkages of the New Foodgrain Production Technologies," *Indian Journal of Agricultural Economics* 28 (January-March 1973): 35-55; and John W. Mellor, "Agriculture on the Road to Industrialization," in *Development Strategies Reconsidered*, ed. John P. Lewis and Valeriana Kallab (New Brunswick, N.J.: Transaction Books, 1986), pp. 67-89.

[44] Muhammad Yunus, *The First Decade of Grameen Bank, 1976-86* (in Bengali) (Dhaka: Grameen Bank, 1987).

Table 14—Loans disbursed for various types of collective enterprises, 1982-85

Type of Enterprise	1982-84 Amount of Loans	1982-84 Share of Loans	1985 Amount of Loans	1985 Share of Loans	1985 Loans as Share of Those in 1982-84
	(Tk 1,000)	(percent)	(Tk 1,000)	(percent)	
Improved technology	5,127	17.9	1,283	5.9	25.1
Leasing of markets and ferry crossings	3,495	12.2	1,323	6.1	37.9
Trading and storage	4,300	15.0	1,275	5.9	29.7
Joint farming	13,304	46.6	16,170	74.2	121.5
Livestock and fisheries	1,674	5.9	1,475	6.8	88.1
Transport operations and other services	680	2.4	255	1.2	37.5
Total	28,580	100.0	21,781	100.0[a]	76.2

Sources: Grameen Bank, *Annual Report,* 1984, 1985 (Dhaka: Grameen Bank, 1985, 1986).
[a] Parts do not add to total because of rounding.

compete with the upper-income group in activities that require large amounts of capital, and to increase labor productivity by adopting improved technology. Examples of such activities are investment in irrigation equipment; installation of rice, oil, and weaving mills; leasing of markets, orchards, waterbodies, and ferry crossings; and leasing of agricultural land. Loans are granted to groups and centers that have demonstrated that they are well managed, have observed the bank's rules and regulations meticulously, and have accumulated a substantial fund in a collective special savings account. Such a loan is issued to the collective body, but each member is responsible for an equal proportion of the loan and for making repayment in weekly installments of 2 percent of the loan amount, just as in the case of loans to individuals.

Collective enterprises are managed by three committees: one for management, one for audit, and one for finance.[45] On a consensual basis, the members select three representatives for each committee. The group chairperson or the center chief acts as the convener of committee meetings. The committee supervises daily operations and reviews the economic situation in weekly meetings.

The loans for collective enterprises quickly became popular, but because of widespread failure of these enterprises, the enthusiasm of the members could not be sustained. In 1984, 32 percent of Grameen Bank members participated in collective enterprises; in 1985 that rate was reduced to 17 percent. The share of collective enterprises in total loans jumped from 1.9 percent in 1983 to 8.2 percent in 1984, but fell to 5.1 percent in 1985 and further to 1.4 percent in 1986 (Table 8).

Table 14 shows the importance of various types of activities for which loans were disbursed for collective enterprises. Between 1982 and 1984, nearly one-half of the total loan amount was taken for joint crop cultivation or pisciculture. The amount disbursed for crop cultivation through 1984 was Tk 13 million, which compares favorably with Tk 8 million issued for these purposes as individual loans. The insignificant demand for crop loans by individual bank members is due to the small amount of land owned by members and to the requirement that loans be repaid in weekly installments even though the income from crop cultivation is seasonal. Provision of a larger amount of credit for undertaking collective enterprises induces members to rent land and

[45] Fugelsang and Chandler, *Participation As Process,* p. 154.

organize production on a cooperative basis, since they can pay the weekly installments from their regular income from nonfarm enterprises undertaken with individual loans. Thus, in collective enterprises, the Grameen Bank found an avenue of financing crop cultivation and engaging the rural poor in this important production activity. In 1985, crop cultivation accounted for about three-fourths of the loans disbursed for collective enterprises.

The failure of collective enterprises to expand as fast as individual enterprises is mainly due to a slack demand for such loans to undertake nonfarm activities or to finance investment in improved technology. Thus the basic purposes of introducing collective enterprise loans (reaping economies of scale and increasing labor productivity) seem to have been defeated.

According to Grameen Bank management, about one-fifth of the collective enterprises undertaken in the initial years failed. The bank attributes these failures to the difficulties of organizing groups with a large number of members, problems in maintaining accounts, distrust among members, unfamiliarity with new techniques, improper planning about the need for working capital to more fully utilize machines, and interference with the rural power structure. In many cases, undertaking collective enterprises led to misunderstanding among members in the centers, and in a few cases the center chief tried to control the money for personal benefit.

An important factor behind the slack demand for credit for acquisition of improved technology may be that the same loan repayment procedures are required for collective loans as for individual loans. Acquisition of machinery and fixed assets is a relatively long-term investment with a long payback period. Grameen Bank credit, on the other hand, has to be fully repaid within one year—a term that is more suitable for financing working capital needs. Some of these investments, such as installation of irrigation equipment, do not generate a regular flow of income, so it is difficult to meet the bank requirement that loans be repaid in weekly installments. The enthusiasm for taking collective enterprise loans for crop cultivation may also die down very soon unless loan repayments are changed from weekly to seasonal installments so that members can repay the loans after harvest.

In 1986 the bank decided that its Technology Division would take up direct management of the collective enterprises.[46] That division is to guide the enterprises to a profit-making position while imparting management and technical training to bank members. For the present, the bank holds a one-fourth ownership in these enterprises. When members become capable enough, the ownership and management of the enterprises will be handed over to them in stages.

Under this arrangement the bank has already taken up the management of the ailing collective enterprises and has purchased the abandoned agricultural machinery, such as power tillers and irrigation equipment. For repair and maintenance of the machinery and equipment, two service centers have been established. The bank has also moved into large-scale fisheries projects by leasing government-owned water bodies on behalf of the landless. In January 1986 the government handed over to the Grameen Bank the management of one such large-scale fisheries project that covers 783 ponds with 1,030 acres of water bodies in a 200-square-mile site. The bank has also leased 300 acres of mangrove land for 10 years from the Ministry of Fisheries and Livestock and plans to develop the area into an ideal shrimp farm, train the landless in shrimp farming, and ultimately hand the farm over to them.

Use of Group Fund

The Group Fund was created to provide loans to members at times of emergency, such as illness or social ceremony, so that

[46] Grameen Bank, "Annual Progress Report: 1986."

Table 15—Utilization of the Group Fund, 1983-86

Variable	Unit	1983	1984	1985	1986
Contributions during the year	Tk million	16.0	21.9	33.5	43.1
Cumulative savings by the end of the year	Tk million	16.0	37.9	71.4	114.5
Number of loans	Thousand	14.9	12.9	18.5	n.a.
Share of members taking loans	Percent	n.a.	10.7	10.8	n.a.
Amount of loans taken during the year	Tk million	2.6	6.5	11.0	17.3
Cumulative amount of loans taken by the end of the year	Tk million	4.8	11.3	22.3	39.5
Loans disbursed from Group Fund as a share of cumulative savings	Percent	16.3	17.2	15.4	15.0
Unutilized balance in Group Fund[a]	Tk million	13.4	31.4	60.4	97.3
Unutilized balance as a share of outstanding normal loans	Percent	18.7	17.8	26.8	32.3

Sources: Compiled from Grameen Bank, *Annual Report,* various issues (Dhaka: Grameen Bank, various years); and Grameen Bank, *Consolidated Cumulative Statement as of December 31, 1986* (Dhaka: Grameen Bank, 1987).

Note: n.a. means not available.

[a] This is an imprecise figure. It should have been calculated by deducting the amount of outstanding loans from the amount accumulated in the Group Fund, but the figure for the amount of outstanding loans from the Group Fund is not available. Instead, the amount of the loans issued during the year has been deducted from the accumulated amount.

a borrower does not have to touch capital or resort to local moneylenders (see Chapter 4). The fund is operated by members of the group, who also decide the terms and conditions of the loan. So far, loans have been disbursed from the fund free of interest.

The pattern of utilization of the Group Fund is shown in Table 15. Only 11 percent of members took loans from the fund during each of the two years for which figures are available, and the amount of the loans disbursed varied from 15 to 17 percent of the amount accumulated in the fund. Thus the Group Fund has become an important source of funds for normal operation of the bank. In December 1983 the unused balance in the fund constituted about 19 percent of the amount of outstanding normal loans with borrowers; it rapidly increased to about 32 percent by the end of 1986.

It is difficult to understand why a large proportion of the Group Fund remains unused, since experience indicates that the poor tend to be in constant need of credit (Table 3). One reason may be that the unutilized amount earns an annual rate of interest of 8.5 percent from the Grameen Bank, but if it is lent to members it earns no interest, so the group is reluctant to lend from the fund unless a member is in dire need. But the same restraint could be achieved by imposing interest on the loans. It may be that the group does not want to profit from emergencies of fellow members. Also, since individual members do not have any claim on the amount accumulated in the fund, the profit motive may not operate.

The purposes for which loans have been issued to members from the Group Fund are seen in Table 16. Social and household needs account for nearly one-third of total loans, and health and medical expenses constitute another one-sixth. The share of the loans for these unproductive purposes increased from 45 percent in the 1979-83 period to 51 percent in 1985. Loans are occasionally taken from the Group Fund for the repayment of overdue loans from other sources, but most of the money is used to repay Grameen Bank loans. Presumably, when a member finds it hard to pay the weekly installments because of some genuine problems, the members allow him to take a loan from the fund to alleviate the difficulties and maintain the discipline of the Grameen Bank. However, the share of such loans is very small and declined from 8.0 percent during 1979-83 to only 2.6 percent in 1985.

An important point to note from Table

Table 16—Distribution of Group Fund loans, by purpose for which loans were taken, 1979-85

Purpose	1979-83		1984		1985	
	Amount of Loans	Share of Loans	Amount of Loans	Share of Loans	Amount of Loans	Share of Loans
	(Tk 1,000)	(percent)	(Tk 1,000)	(percent)	(Tk 1,000)	(percent)
Unproductive	2,171	45.2	2,955	45.3	5,606	51.1
Social and household needs	1,166	24.3	1,840	28.2	3,460	31.5
Health and medical expenses	620	12.9	682	10.5	1,857	16.9
Repayment of old loans	385	8.0	433	6.6	289	2.6
Productive	2,635	54.8	3,564	54.7	5,366	48.9
Crop cultivation	694	14.4	1,041	16.0	1,598	14.6
Purchase of raw materials for manufacturing	356	7.4	260	4.0	374	3.4
Repair and maintenance of equipment	416	8.7	442	6.8	497	4.5
Acquisition of fixed capital	188	3.9	329	5.0	785	7.2
Trading capital	941	19.6	860	13.2	1,022	9.3
Collective enterprises	40	0.8	632	9.7	1,091	9.9
Total	4,806	100.0	6,519	100.0	10,972[a]	100.0[a]

Sources: Grameen Bank, *Annual Report,* 1984, 1985 (Dhaka: Grameen Bank, 1985, 1986).
[a] Parts do not add to total because of rounding.

16 is that nearly half of the Group Fund loans were issued for purposes for which members are eligible to take normal loans from the Grameen Bank, so Group Fund loans have not been limited to emergency situations. Since individual loans from the bank have a maximum limit (Tk 5,000), members capable of productively utilizing a larger amount of capital may borrow the additional money from the fund. The members also see the advantages of interest-free loans with flexible repayment procedures. That this kind of borrowing is not more widespread gives the impression that a few influential members may take advantage of the fund for personal benefit.

6

PERFORMANCE IN CREDIT OPERATIONS

Reaching the Target Group

The main objective of the Grameen Bank is to "extend credit facilities to poor men and women for creating opportunities for self-employment for the vast unutilized and underutilized manpower resources."[47] Thus the Grameen Bank is a credit program targeted to the poor for improvement of their economic condition. It is generally recognized that under existing socioeconomic conditions, it is difficult to reach the poor with resources for development. The general experience of developing countries is that the poor have gained very little from the expanding supply of agricultural credit, which is provided at a rate of interest much below the opportunity cost of capital. In recent literature it has been argued that the low rate of interest generates excess demand for capital from which the rich gain proportionately more because of their connections with local officials and their capacity to apply political pressure.[48]

The Grameen Bank target group is defined as persons belonging to households that own less than 0.5 acre of cultivable land. Table 17 shows the distribution of sample borrowers according to the amount of cultivated land owned, as reported by them to research investigators during a 1985 field survey of 975 randomly selected borrowers from all districts under Grameen Bank operation. Only 4.2 percent of the borrowers belonged to nontarget-group households. In a 1982 survey of 611 borrowers, the proportion of nontarget-group

Table 17—Distribution of borrowers, by amount of cultivated land owned, 1985

Amount of Cultivated Land Owned	Male Borrowers		Female Borrowers		All Borrowers	
	Number	Percent	Number	Percent	Number	Percent
(acres)						
None	264	59.9	379	71.0	643	66.0
Less than 0.10	43	9.8	31	5.8	74	7.6
0.10–0.49	111	25.2	106	19.9	217	22.3
0.50–0.99	18	4.1	15	2.8	33	3.4
1.00–2.49	5	1.1	2	0.4	7	0.7
2.50 or more	0	0.0	1	0.2	1	0.1
Total	441	100.0[a]	534	100.0[a]	975	100.0[a]

Source: Survey of 975 borrowers.
[a] Parts do not add to total because of rounding.

[47] Yunus, "Experiences in Organising Grass Root Initiatives," p. 9.
[48] Dale W Adams and Douglas H. Graham, "A Critique of Traditional Agricultural Credit Projects and Policies," *Journal of Development Economics* 8 (June 1981): 347-366; and Dale W Adams and Robert C. Vogel, "Rural Financial Markets in Low-Income Countries: Recent Controversies and Lessons," *World Development* 14 (April 1986): 477-487.

Table 18—Distribution pattern of landownership and landholding, 1985

Amount of Land Owned and Operated	Landownership			Land Operation		
	Male	Female	All	Male	Female	All
(acres)	(percent of total borrowers in sample)					
None	6.6	11.4	9.2	42.0	56.7	50.0
Less than 0.10	36.7	44.6	41.0	7.5	5.4	6.4
0.10–0.49	45.1	33.7	38.9	24.5	19.9	21.9
0.50–0.99	7.9	6.7	7.3	15.2	10.5	12.6
1.00–2.49	3.4	2.8	3.1	9.8	6.7	8.1
2.50 or more	0.3	0.8	0.5	1.1	0.5	0.9
	(acres)					
Average	0.23	0.22	0.23	0.38	0.28	0.32

Source: Survey of 975 borrowers.

households was 5.6 percent.[49] Thus, even after the rapid expansion of the bank's coverage, not only has the membership remained confined mostly to the target group, but there has in fact been an improvement in this respect. Indeed, most Grameen Bank members are extremely land-poor. The 1982 survey found that two-thirds of them did not own any cultivated land. The 1985 survey sustained this result.

It could be argued that ownership of cultivated land is not the proper criterion for identifying the poor. A borrower may have noncultivable land, such as fish ponds, orchards, or homestead, and can also rent land that could provide a good source of income. The pattern of distribution of landownership and landholding reported in Table 18 shows that total land owned or operated is also very insignificant for most of the borrowers. The average amount of land owned in 1985 was only 0.23 acre, and the average amount of land operated was 0.32 acre. Members who owned more than 1.0 acre of land were only 3.6 percent of the sample—down from 5.2 percent in the 1982 survey. Members who operated more than 1.0 acre (by renting land) were only 9.0 percent of the sample, compared with 10.4 percent in 1982.

There are several factors behind the success of Grameen Bank in reaching its target group. Perhaps the most important one is the selection of the extreme poor as the bank's target. Although accurate information about the landownership status of a household can be concealed, the target group is so poor that its members can be easily identified by such characteristics as their appearance and clothing.

Second, the formation of groups and their compulsory weekly meetings have helped the bank to keep out of its domain the economically better off. The relatively affluent would feel ashamed to mix with the extreme poor on a regular basis.

Third, crop production is usually the major source of income for households that own more than 0.5 acre of cultivated land, and this generates income for the household only after the crop is harvested. With the seasonal flow of agricultural income, it is difficult to maintain repayment of a loan in weekly installments as required by the bank. This seasonal income also checks the tendency on the part of the nontarget group, whose main occupation is farming, to apply for Grameen Bank loans, which they would take mainly for the purpose of crop cultivation.

[49] Hossain, *Credit for the Rural Poor,* pp. 57-63.

Finally, although the bank charges the same nominal rate of interest as the other specialized credit institutions (16 percent a year), the effective cost of the loan to the borrower is higher. Each bank member has to deposit 5 percent of the loan in the Group Fund (this deposit is 10 percent of the average amount outstanding for the year and cannot be reclaimed by the member) and 25 percent of the interest charges in the Emergency Fund. Although the contributions to the Group Fund and Emergency Fund cannot be treated as income by the bank, the effective cost of a loan to the borrower comes to about 33 percent[50] compared with the 16 percent rate of interest charged by other banks. The higher cost of credit also keeps the economically better off away from the Grameen Bank.

One issue to be considered is whether the high implicit rate of interest might constrain the expansion of credit from the Grameen Bank, since this rate cuts down the number of activities that can be profitably undertaken with a bank loan. To address this issue, it is necessary to estimate the rate of return on investment for various activities that are undertaken with the loans. This is, however, an extremely difficult task because of the problems involved in estimating the amount of labor used in informal activities. These activities provide mostly self-employment to workers engaged in multiple occupations. Also, different household members engage in a number of activities, mutually helping each other in their tasks. Collection of accurate information on labor allocated to different activities would require a survey on time allocation for each member of the household.

An additional problem is that widespread underemployment makes the task of estimating the cost of family labor difficult. The 1982 study mentioned above attempted to estimate the rate of return on investment on the basis of a number of assumptions that are of questionable validity.[51] The rate of return on investment was calculated by imputing the cost of family labor as equal to the agricultural wage rate at 86 percent for livestock and poultry raising, 61 percent for trading, and minus 38 percent for processing and manufacturing activities. In the manufacturing group, only weaving, pottery, and dairy products had a positive rate of return.

Even at a negative rate of return, loans are taken for processing and manufacturing enterprises because they enable employment of a household's female labor, which has low opportunity cost. When family labor was imputed at the market wage, the rate of return on investment was estimated by the 1982 study at 57 percent for male-borrower households and minus 87 percent for female-borrower households. But when family labor was imputed at a cost of 80 percent of the market wage rate, the rate of return on investment for female-borrower households was 27 percent. In the rural labor market, however, women receive only 30-40 percent of the wage paid to male workers.[52] If labor were imputed at an opportunity cost of 60 percent of the wage rate, the rate of return on investment would increase to 145 percent.

These calculations show the high sensitivity of the estimate of the rate of return on investment to assumptions about the opportunity cost of labor. Thus, as long as family labor remains underutilized and has low opportunity cost, the Grameen Bank's loans at the implicit high rate of interest will remain attractive to the poor. When the labor market becomes tight, and prospective borrowers can utilize all their available labor at a market wage higher than the return on family labor in bank-financed enterprises,

[50] On a loan of Tk 100, the borrower would have to pay Tk 8 in interest (at 16 percent on an average balance of Tk 50) plus Tk 2 as a contribution to the Emergency Fund. Thus the principal and the interest amount to Tk 110. The borrower would receive initially only Tk 95, as Tk 5 is deducted for the Group Fund. Thus the borrower would pay Tk 15 in addition to the amount of Tk 95 received. The average balance in hand would be Tk 45 (Tk 95 minus Tk 50 paid in the first 25 weeks). Therefore, the implicit annual rate of interest is 33.3 percent (15 divided by 45).

[51] Hossain, *Credit for the Rural Poor,* pp. 77-94.

[52] R. I. Rahman, *The Wage Employment Market,* pp. 53-57; and Hossain, "Employment and Labour," p. 15.

Table 19—Occupation of members and heads of household as stated on membership application form

Occupation	Members: Principal Occupation	Members: Principal Plus Secondary Occupation	Heads of Household: Principal Occupation	Heads of Household: Principal Plus Secondary Occupation
	(percent of members)			
None, or not stated	41.6	41.6	5.4	5.4
Crop cultivation	7.3	17.3	15.3	28.0
Agricultural labor	8.4	10.1	22.3	26.3
Livestock, poultry raising, and fisheries	0.1	0.7	0.6	1.1
Industry	15.1	25.4	14.0	19.4
Trading and shopkeeping	19.2	26.2	25.3	34.6
Transport and construction	2.8	3.6	5.0	6.1
Other services	5.4	7.4	12.1	14.1
Total	100.0[a]	132.1[a,b]	100.0	135.0[b]

Source: Unpublished data contained in approximately 4,700 Grameen Bank membership application forms.
Note: The head of household is not necessarily a member of the Grameen Bank. Most of the male members are heads of household, but for most female members the head is a different person.
[a] Parts do not add to total because of rounding.
[b] These figures show the index of multiple occupations, indicating that 35 percent of the household heads and 32 percent of the Grameen Bank members had more than one occupation.

the demand for Grameen Bank loans will slacken. Since the higher-income group has better job opportunities and higher value for leisure, such high-cost loans are less attractive to them than to the poor.

Coverage of Occupational Groups

Table 19 provides information about the occupational backgrounds of Grameen Bank members and those of heads of households to which members belonged at the time of application for bank membership. This information was obtained by processing approximately 4,700 loan application forms kept at Grameen Bank offices for the branches selected for this study. About 42 percent of the members had no income-earning occupation (though some may have been unpaid family workers in household enterprises) at the time of application for the first loan. Thus the loans helped to generate new jobs for a large proportion of the members. Only 5 percent of the heads of borrower households, however, reported having no employment at the time of joining the bank. This discrepancy occurs because most household heads are male and must do something to make a living. But the majority of Grameen Bank members are women, a large proportion of whom are dependents in the household. A Grameen Bank loan enables them to participate in productive activities and lowers the dependency ratio in the family.

Among those applicants who were employed, the majority (59.0 percent) were involved in industry and trading, and very few (14.4 percent) had agricultural labor as their principal occupation. Cultivating family farms and working as agricultural wage laborers were the principal occupations of 15 and 22 percent of the heads of households, respectively. According to the 1983-84 agricultural census, about two-thirds of the Grameen Bank target group were agricultural-labor households.[53] This compari-

[53] In 1983/84 there were an estimated 13.8 million rural households, of which 6.2 million belonged to the Grameen Bank target group. The number of agricultural-labor households was estimated at 5.5 million, of which 3.78 million belonged to the Grameen Bank target group. See Bangladesh, *Census of Agriculture and Livestock*, p. 81.

Table 20—Average size of current loans, by length of bank membership, 1985

Number of Loans Taken	Number of Borrowers	Share of Borrowers	Average Size of Loan
		(percent)	(Tk)
One	276	28.3	2,181
Two	378	38.8	3,205
Three	171	17.5	3,702
Four	91	9.3	3,324
Five or more	59	6.1	3,644
Total	975	100.0	3,040

Source: Survey of 975 borrowers.

son indicates that households engaged in trading and manufacturing have been reached relatively more than those occupied in agricultural wage labor. Since agricultural wage laborers are the poorest among the poor, it appears that the Grameen Bank has had limited success in serving the extreme poor within the landless group.

An important factor behind the limited success of the bank in reaching agricultural wage laborers, compared with other occupational groups, could be the Grameen Bank emphasis on investment in activities that generate regular income. Wage laborers are timid about coming forward when a new branch is being established because they are used to working for others and are fearful of venturing into activities that need some entrepreneurial skills. They would like to join the bank later, when they have gathered sufficient courage by observing the experience of others, but by that time it is difficult to enter a group. Membership in a group is permanent unless a member leaves voluntarily. A Grameen Bank branch has a fixed number of workers and a bank worker has the capacity to serve 200-250 members. Once the capacity of the branch is reached, it becomes difficult for a person to join the bank. The Grameen Bank could address this problem by considering a policy of graduating older members in order to extend bank coverage to less entrepreneurial, poorer households who would like to join later.

However, the Grameen Bank may indirectly contribute to increases in the income of those agricultural wage laborers who are left out. Members who use their loans to pursue nonfarm activities withdraw from the agricultural labor market, thus reducing the supply of agricultural workers. This increases the number of days of agricultural employment available for the remaining workers and puts an upward pressure on the wage rate, thereby increasing total wage earnings for nonparticipants within the bank's target group.

Size of Loans

The average size of current loans received by sample borrowers in the 1985 survey was estimated at Tk 3,040—Tk 3,279 for men and Tk 2,843 for women. On average, female borrowers thus received about 13 percent less than male borrowers. The Grameen Bank has set Tk 5,000 as the maximum amount that can be approved for an individual loan. The survey found that about 14 percent of current loans were Tk 4,000 or more, and about 12 percent were Tk 1,500 or less. Nearly 50 percent of the loans to male members were between Tk 2,500 and Tk 4,000, while about 40 percent of loans to female members were in this range.

In general, new members received smaller loans than old members. Members who had already taken five or more loans composed about 6 percent of the sample and they received, on average, about two-thirds more than those who were first-time borrowers (see Table 20). The marginal increase in the size of the loan, however, declines sharply with the length of membership. Second-time borrowers received an average of about Tk 1,024 more than first-time borrowers, but the increase for third-time borrowers was only about Tk 500. Beyond the third loan, the average loan amount was in fact smaller than that for third-time borrowers.

This phenomenon can be explained as follows. With every repeat loan, the amount of equity in the capital of the enterprise

Table 21—Loan distribution, by purpose of loan and sex of borrower, 1985

Purpose of loan	Male Borrowers	Female Borrowers	All Borrowers
		(percent of current loan amount)	
Crop cultivation	4.0	4.6	4.3
Livestock, poultry raising, and fisheries	18.5	44.6	31.9
Processing and manufacturing	18.6	29.9	24.4
Trading and shopkeeping	49.7	18.7	33.8
Transport and other services	9.2	2.2	5.6
Total	100.0	100.0	100.0

Source: Survey of 975 borrowers.

increases, but the rate of return on capital declines because of the higher opportunity of family labor due to fuller utilization of labor and increased value of leisure as per capita income increases. Hence the demand for new loans declines after a few years.

The average size of loans for the major activities varied according to the purpose for which a loan was taken and the sex of the borrower. For most of the activities, female members received smaller loans than male members. The average size also varied with the educational status of the members. Illiterate members received about 25 percent less than those with secondary or higher education.

Use of Loans

Table 21 presents the survey findings on distribution of loans according to the purpose for which the loans were taken. The results are broadly similar to those obtained from processing the official records of the Grameen Bank, as reported in Tables 8, 9, and 10. For male members, about 50 percent of the amount of the loans was taken for trading and shopkeeping, while for female members, about 75 percent of the loan amount was for livestock and poultry raising and for processing and manufacturing activities.

Table 22 shows the pattern of utilization of Grameen Bank credit as stated by the borrowers.[54] The important point to be noted is that only an insignificant proportion of the loans was diverted to consumption and other household needs. Only 0.7 percent of the money was used for consumption purposes, 4.3 percent for social ceremony, and 1.6 percent for repair of housing. Ninety-four percent of the money was used for investment in various agricultural and nonagricultural activities. About 4.3 percent of the total amount was borrowed for crop cultivation (Table 21), but 6.4 percent was utilized for this purpose, indicating marginal diversion of nonfarm loans into farming activities. Thirty-five percent of the total amount was used for trading and shopkeeping, and 32 percent for livestock and poultry raising—almost the same proportion that was borrowed for these purposes. It appears that the diversion of loans to consumption and social ceremony took place primarily at the expense of investment in processing and manufacturing activities.

The diversion of money across sectors will be better seen in Table 23, which shows the utilization pattern of loans by their initial purpose. Loans taken for shopkeeping and for transport and other services were mostly used for these purposes. But a large portion of the money taken for processing and manufacturing activities was diverted

[54] It should be recognized here that the loans are fungible. The amount of money received could have substituted for own capital utilized in the enterprise before the loan was taken, which would now be available for consumption or meeting other household needs.

Table 22—Pattern of loan utilization, by sex of borrower, 1985

Utilization	Male Borrowers	Female Borrowers	All Borrowers
		(percent of current loan amount)	
Nonproductive	4.9	8.1	6.6
Consumption	0.5	0.9	0.7
Social ceremony	3.5	5.0	4.3
House repair	0.9	2.2	1.6
Productive	95.1[a]	91.9[a]	93.5
Crop cultivation	7.4	5.5	6.4
Livestock raising	19.9	33.1	26.8
Poultry raising	3.9	5.7	4.9
Processing and manufacturing	11.6	18.3	15.1
Trading and shopkeeping	43.7	27.3	35.1
Transport operations and other services	8.7	2.1	5.2
Total	100.0	100.0	100.0[a]

Source: Survey of 975 borrowers.
[a] Parts do not add to total because of rounding.

to livestock and poultry raising (26 percent) and trading (23 percent). This diversion reflects the low rate of return on capital for processing activities compared with that for trading and livestock raising.

Repayment Behavior of Borrowers

The traditional banking system rarely provides credit to the poor, since (1) they cannot provide collateral against which the loan can be granted; (2) they do not maintain accounts for preparation of bankable projects; and (3) they have a low repayment capacity because, at their subsistence level, the compulsion to consume the additional income is great.[55] The Grameen Bank is providing loans to these people without any collateral. It is thus important to investigate the repayment behavior of Grameen Bank members.

The monthly statement of the Grameen Bank for February 1987 reported that 97.4 percent of the money was recovered within one year after the date of issue and 98.6 percent within a period of two years.[56] The bank treats as overdue any loan amount that is not repaid within two years, since the loanable fund is borrowed for that term. Thus the bank regarded only 1.4 percent of loans as overdue. In actual practice, however, the borrower is expected to fully repay the loan within one year. From this point of view, the overdue amount was 2.6 percent.

An independent estimate of the loan repayment performance was made by asking the sample borrowers how many weekly installments had already been paid at the time of the interview and estimating how many were due to be paid from the date of issue of the loan. Each borrower has a passbook in which this information is recorded. The interviewer was asked to verify the response of the borrower by checking this passbook. The amount overdue is derived by multiplying the number of overdue installments (installments due to be paid minus the installments actually paid at the

[55] Grameen Bank, *Consolidated Cumulative Statement as of February 28, 1987* (Dhaka: Grameen Bank, 1987).
[56] See, for example, the lenders' views about handling small industry loans in M. U. Ahmed, "Financing Rural Industries," pp. 75-76.

Table 23—Pattern of loan utilization, by purpose of loan, 1985

Utilization	Purpose of Loans					
	Crop Cultivation	Livestock, Poultry Raising, and Fisheries	Processing and Manufacturing	Trading	Shopkeeping	Transport Operations and Other Services
	(percent of current loan amount)					
Nonproductive	1.0	5.6	7.1	6.5	5.7	5.6
Consumption	0.0	0.6	1.2	0.4	0.6	0.6
Social ceremony	1.0	3.2	5.1	3.7	5.1	5.0
House repair	0.0	1.8	0.8	2.4	0.0	0.0
Productive	99.0	94.4	92.8	93.5	94.3	94.4
Crop cultivation	72.0	4.4	1.8	4.9	6.4	3.3
Livestock, poultry raising, and fisheries	4.5	66.4	25.8	12.2	1.1	2.0
Processing and manufacturing	0.8	12.5	41.9	2.2	0.7	0.0
Trading and shopkeeping	21.7	10.4	22.6	72.4	86.1	2.0
Transport operations and other services	0.0	0.7	0.7	1.8	0.0	87.1
Total	100.0	100.0	100.0[a]	100.0	100.0	100.0

Source: Survey of 975 borrowers.
[a] Parts do not add to total because of rounding.

time of the interview) by the amount to be paid per week. Thus a loan is treated as overdue even before the maturity period of one year if the borrower has not been regular in paying the weekly installments. Table 24 shows that only 0.5 percent of the amount of the loans was overdue beyond one year after issue of the loans to sample borrowers, and the amount unpaid in overdue weekly installments (before the end of the year) was only 3.3 percent of the amount borrowed. The sample survey thus confirms the excellent recovery performance shown in official records of the Grameen Bank.

Table 24 also shows that loan repayment performance was almost the same for male and female members, but varied across landownership groups and with length of membership in the bank. A large proportion of overdue loans was with nontarget-group households and longtime borrowers. Members who owned more than 1 acre of cultivated land had about 7.2 percent of the loan amount in overdue installments, compared with only 2.7 percent for members who owned no cultivated land. The amount overdue beyond one year was 2.4 percent for those with more than 1 acre, compared with only 0.4 percent for those with no land. Fourth-time borrowers had 9.5 percent of the loan amount in overdue installments, compared with 0.4 percent for first-time borrowers and 1.2 percent for second-time borrowers. Thus the longtime members appeared to be less committed to maintaining regular repayment. But all groups of borrowers had very little overdue beyond one year after the date of disbursement.

The repayment behavior of different groups of borrowers is seen more clearly in Table 25. Seventy-eight percent of borrowers had no overdue installments at the time of the 1985 survey. This figure was found to be the same as in a 1982 survey, thus showing the stability of the estimate.[57] More than one-third of the overdue cases

[57] Hossain, *Credit for the Rural Poor*, p. 69.

Table 24—Extent of overdue loans, by type of borrower, 1985

Type of Borrower	Total Amount of Loans to Group	Overdue Installments[a] Amount	Overdue Installments[a] Share of Loan Amount	Installments Overdue Beyond 52 Weeks Amount	Installments Overdue Beyond 52 Weeks Share of Loan Amount
	(Tk 1,000)		(percent)	(Tk 1,000)	(percent)
Sex					
Male	1,441.5	49.7	3.4	4.8	0.3
Female	1,512.5	49.1	3.2	9.3	0.6
Landownership (acres)					
0.0	1,429.5	38.8	2.7	5.5	0.4
0.01–0.49	843.5	23.4	2.8	0.5	0.1
0.50–0.99	387.5	15.4	4.0	1.3	0.4
1.00 or more	293.5	21.2	7.2	6.9	2.4
Number of loans taken					
One	595.5	2.1	0.4	0.0	0.0
Two	1,211.5	14.3	1.2	3.0	0.2
Three	633.0	41.9	6.6	7.2	1.1
Four	299.0	28.5	9.5	3.9	1.3
Five or more	215.0	11.9	5.5	0.0	0.0
Total	2,954.0	98.7[b]	3.3	14.1[b]	0.5

Source: Survey of 975 borrowers.
[a] The amount due to be paid minus the amount actually paid at the time of the survey.
[b] Parts do not add to total because of rounding.

had one or two unpaid installments. Cases with 10 or more overdue installments were estimated at only 5.1 percent, which is an improvement over 1982, when this figure was estimated at 9.3 percent. The repayment performance was best for women borrowers—81 percent of them had no overdue installments, compared with 74 percent for men.

A sharp difference in repayment performance is noted among borrowers differentiated by length of membership in the bank. More than 62 percent of the members who had already taken five or more loans from the bank had overdue installments at the time of the 1985 survey, compared with only 3.3 percent for first-time borrowers and 10.5 percent for second-time ones. A

Table 25—Distribution of borrowers, by overdue and paid installments, 1985

Installments	Number of Loans Taken: One	Two	Three	Four	Five or More	Sex of Borrowers: Male	Female	Male and Female
	(percent of borrowers)							
Overdue installments	3.3	10.5	39.1	67.1	62.7	25.6	18.7	21.8
1–2	2.2	4.7	10.5	20.9	33.9	11.6	5.7	8.3
3–5	0.4	3.4	6.4	18.7	16.9	5.4	5.2	5.3
6–9	0.0	0.8	6.4	15.4	5.1	4.1	2.2	3.1
10 or more	0.7	1.6	15.8	12.1	6.8	4.5	5.6	5.1
No overdue installments	96.7	89.5	60.9	32.9	37.3	74.4	81.3	78.2
Exact number of installments paid	78.2	75.3	56.7	25.2	32.2	63.0	67.8	65.6
Advance installments paid	18.5	14.2	4.2	7.7	5.1	11.4	13.5	12.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Survey of 975 borrowers.

significant proportion of new borrowers pay installments in advance, presumably to become eligible for another, larger loan as soon as possible. This may be partly due to underestimation by both lender and borrower of the first loan amount that the latter can profitably use. Once in business, the borrower realizes the mistake and wants a larger loan. Since there is a tendency to repay from principal rather than from income, Grameen Bank has ruled that a loan cannot be fully repaid earlier than 40 weeks from the date of issue.

The recovery of Grameen Bank loans must be considered excellent when compared with the performance of other credit programs in Bangladesh. According to the agricultural credit review of 1983, conducted jointly by the government of Bangladesh and the International Development Association, the nationalized commercial banks showed 52 percent of their outstanding agricultural loans as overdue in June 1980 and 61 percent in June 1981.[58] Nearly half of the amount was overdue by more than two years. The agricultural development bank, which has a relatively better record of repayment, had 17 percent of loans overdue at the end of June 1982.

Some of the factors that have contributed to the excellent recovery of Grameen Bank loans are (1) the personal interest and close supervision of activities in the field by the managing director, who is also the founder of the bank; (2) the dedicated services of the bank workers, most of whom have taken the job as an opportunity to provide services to the poor rather than simply to earn an income for themselves; (3) the provision of loans for activities that generate regular incomes; (4) the procedure of collecting repayments in small amounts through weekly installments; and (5) the genuine credit need of the poor for profitable income-earning opportunities perceived by them.

In spite of the large increase in the number of bank branches, the managing director still maintains his personal contacts with the branches through frequent field visits and attendance at workshops. Workshops are arranged to bring together representatives of borrowers, center chiefs, and bank staff to discuss issues of bank operation and social matters such as family planning, marriage expenses, education of children, health and sanitation, and relations with local power holders. Top Grameen Bank managers attend these workshops to keep in touch with problems in the field. The managing director is also assisted in the field by a dedicated cadre of mid-level officers, many of whom were his students and were developed by him during the pilot experiment of the project near Chittagong University. With the increase in the number of bank branches, these officers now work as his primary contacts, keeping him constantly in touch with the problems of bank branches and the performance of the managers and bank workers. A decentralization of administrative and decisionmaking processes has also followed the expansion of the bank (see Chapter 4).

Bank employees are recruited after careful scrutiny of their knowledge of the living conditions of the rural poor and interest in serving them. Before employees are assigned to a branch, they are given intensive training for six months, mostly in the field, where they not only learn their duties and the rules and procedures followed by the Grameen Bank, but also observe and study the socioeconomic conditions in the countryside and the needs of the poor. The employees are then sent to existing branches to work as trainees. During this time they observe the operation of the bank, assist their counterparts in the branch, and write case studies on the life of the rural poor. Most employees who find the work difficult and not suitable for them leave the Grameen Bank at this time. Only those who pass the test of hard work are sent to their new duty stations as independent workers. Such intensive training helps build a dedicated cadre of bank employees who are really the

---

[58] Bangladesh/International Development Association, *Bangladesh Agricultural Credit Review, Statistical Annex* (Dhaka: Government of Bangladesh/IDA, 1983).

key to the success of the Grameen Bank. They have not yet been influenced by the widespread corruptive practices elsewhere in the banking system.

As already noted, Grameen Bank credit finances basically noncrop activities. These activities generate regular incomes, and as the loans are recovered in small installments on a regular basis, the clients find repayment easy. If the loans had to be repaid in one installment after one year, as is the case with agricultural lending in the country, the borrowers would find it difficult to accumulate the amount because, at their level of income, there is a tendency to divert increased income to consumption.

7

ECONOMIC EFFECTS

Methodological Issues

In the absence of comparable benchmark data, the effect of the Grameen Bank's operation on income and poverty had to be estimated through a "with" and "without" comparison of information collected in a one-time survey of households in five project villages covered by the bank and two control villages outside the bank's area of operation. The sample households were classified into four groups: (1) Grameen Bank members in project villages, (2) nonparticipating households within the target group (target-group households own less than 0.5 acre of cultivated land), (3) target-group households in the control villages, and (4) nontarget-group households (those who own 0.5 acre or more) in both project and control villages. Groups 2 and 3 have been used as alternative controls for comparison of the average values of the relevant variables with those for group 1.

This methodology is not without pitfalls.[59] There are problems with using either of the two groups as a control. The target-group nonparticipants in the project villages would have similar resource bases, but some of their sources of income would be affected by the bank's intervention. For example, income from agricultural labor would be affected by the withdrawal of bank members from the agricultural labor market, while the participants' access to credit for undertaking nonfarm enterprises might lead to some redistribution of nonfarm income from nonparticipant to participant households within the project village. The selection of control households from the target group in villages outside areas of the Grameen Bank's operation would eliminate these problems, but in practice it is difficult to find control villages that are exactly similar to project villages in all respects. The survey found that the control villages had a larger proportion of landless and near-landless households than the project villages, and that the average amount of land owned was less for the control villages, although the average amount of cultivated land owned was similar, because of greater participation of control households in the tenancy market.

The estimates obtained from the comparison may also suffer from the sample selection bias. It could be argued that the Grameen Bank initially moves into villages that have relatively high levels of income, as the market for nonfarm goods and services would be larger there and hence the demand for loans would be greater. Similarly, Grameen Bank participants may be better entrepreneurs than the nonparticipants and hence were probably better off before the intervention of the bank. A simple comparison of the project and control groups may thus overestimate the true effect.

In order to see the extent of the sample selection bias, a probit model was run by

---

[59] Analysts of rural financial markets denounce the value of studies of the effect of credit programs. Von Pischke and Adams argue that measurement of the effects of a credit program should focus on "additionality," which is the difference between what happened under a project and what would have happened without it, and additionality is very difficult to measure at the farm level. David and Meyer argue that credit effect is very hard to isolate with the use of common social science research tools and the value of credit as a tool for development can be easily overestimated by ignoring problems such as fungibility of loan money and the interdependence of farm and household decisionmaking. See J. D. Von Pischke and Dale W Adams, "Fungibility and the Design and Evaluation of Agricultural Credit Projects," in *Rural Financial Markets in Developing Countries,* ed. J. D. Von Pischke, Dale W Adams, and Gordon Donald (Baltimore and London: Johns Hopkins University Press, 1983), pp. 74-83; and Cristina C. David and Richard L. Meyer, "Measuring the Farm Level Impact of Agricultural Loans," in *Rural Financial Markets,* ed. Von Pischke, Adams, and Donald, pp. 84-95.

Table 26—Statistical difference between project and control group households according to selected exogenous variables, 1984/85

Variable[a]	Sample of Members with Target-Group Nonparticipants in Project Villages (N = 137) Regression Coefficient	t-ratio	Significance Level	Sample of Members with Target Group in Control Villages (N = 132) Regression Coefficient	t-ratio	Significance Level
Constant	1.430	2.040	0.041	6.310	0.02	0.984
FSZ	0.056	0.960	0.339	0.099	1.54	0.123
AGE	−0.017	−1.830	0.067	−0.035	−3.25	0.001
EDN	0.022	0.820	0.414	0.065	2.30	0.022
LND	−0.470	−1.580	0.115	0.014	0.11	0.917
CPTLP	0.046	1.089	0.277	−0.005	−0.23	0.817
OCPP	−1.112	−1.870	0.062	−5.720	−0.02	0.986
$\bar{R}^2$	0.090			0.120		
Log-L	−94.900			−91.400		

Source: Household survey in project and control villages.
[a] FSZ is the number of family members; AGE is the age of the household head; EDN is the number of years of formal schooling completed by the household head; LND is the acreage owned by the household; CPTLP is the value of nonland fixed capital before joining the bank; and OCPP is a dummy variable representing the participant's major occupation before joining the bank.

regressing a dichotomous dependent variable, which measures participation in the Grameen Bank (1 for participants and 0 for nonparticipants), to a number of exogenous variables that are not supposed to be affected by the intervention made by the bank. The following regression model has been estimated:

$$MMBR = f(FSZ, AGE, EDN, LND, CPTLP, OCPP),$$

where MMBR is a dummy variable with value 1 for participants and 0 for nonparticipant households, FSZ is the number of family members, AGE is the age of the household head, EDN is the number of years of formal schooling completed by the household head, LND is the amount of land owned by the household (acres), CPTLP is the value of nonland fixed capital (in Tk 1,000) before joining the bank, and OCPP is a dummy variable representing the participant's major occupation before joining the bank, taking value 1 for agriculture and 0 for nonagriculture.

The results of the exercise for the two sets of samples (participants with the target-group nonparticipants in project villages, and participants with the target group in the control villages) are presented in Table 26. The Grameen Bank participants had larger families, were younger, better educated, and pursued more nonagricultural activities than the nonparticipants in both project and control villages. But within the project villages, the difference between the two groups was not statistically significant at less than 5 percent. Only with respect to age and occupation was the difference weakly significant at less than 10 percent probability. Compared with the target group in the control villages, the project group was significantly different with respect to age (younger) and education (higher levels of schooling). Thus the results obtained from comparison of the project group with control group 1 should not be seriously biased, but the positive results obtained from comparison with control group 2 may be biased upward.

Effect on Credit Markets

One of the basic premises of the Grameen Bank is that the poor nonfarm operators, particularly those employed in cottage industries and petty trade, have to depend on village moneylenders *(mohajons)* for capital. It is well known that the *mohajons* charge very high rates of interest on these informal loans (Table 3). An interest rate of 10 percent a month is common in informal markets. The *mohajons* sometimes control the input and product trade, and the nonfarm operator facing a shortage of capital sometimes gets raw materials on credit from a moneylender against the stipulation that the operator will sell the output through the lender.[60] By exercising monopoly control in the interlinked input, product, and capital markets, the *mohajon* can extract a large proportion of the current income of the borrower.[61] Lack of capital may also force many nonfarm operators to sell their services as laborers for a very low wage. This is observed especially in paddy husking and petty trade. Grameen Bank credit may enable nonfarm operators to become independent of the rural financial and market intermediaries and help this poor group to retain the income now extracted by the moneylenders.

The Grameen Bank collects information on the nature and extent of current indebtedness of prospective members by asking them to report the sources and amount of current debt (including credit that is not overdue) on the membership application form. This information may be underreported because of fear that the bank would not provide credit to an indebted household. Also, credit obtained in kind, in the form of raw materials, may not be reported, as this is not normally considered to be debt. This information was processed for the members of the branches under study. It was found that only 0.7 percent of Grameen Bank members had received credit from institutional sources before joining the bank (not shown in the table). Even the informal lenders do not regard these households as creditworthy. Only 5.7 percent of member households reported that they had debts with noninstitutional sources—3.4 percent from *mohajons,* 2.0 percent from friends and relatives, and 0.3 percent from other informal sources. The average size of the debt for an indebted household was Tk 1,502—Tk 964 with *mohajons* and Tk 2,684 with friends and relatives.

Since raw materials obtained on credit are not generally regarded as loans, the sample borrowers covered in the 1985 survey were asked to report the size of the working capital employed by them in an enterprise before joining the bank and the amount financed by noninstitutional sources. This information, too, may be inaccurate, especially for repeat borrowers, because of problems associated with memory recall. Nineteen percent of households reported receiving noninstitutional credit before joining the Grameen Bank (see Table 27). This proportion was reduced to less than 3 percent as a result of intervention by the bank. Thirty percent of the working capital of borrowers was financed with noninstitutional credit before joining the bank, but this was reduced to only 3 percent for 1985, indicating the overwhelming effect of the Grameen Bank on the operation of the informal credit market.

The effect of the bank on the rural credit market can be better assessed from Table 28, which presents the findings of the household survey in the project and control villages on the amount of loans taken from various sources during 1984/85. About 94 percent of member households received an average of Tk 3,300 from institutional (Grameen Bank) sources. The dependence of participants on noninstitutional sources was low when compared with similar groups of households in the project and control villages. Only 6 percent of Grameen Bank members received loans from noninstitutional sources, compared with about 18 percent of the bank's target group in the control villages and 20 percent among nonmembers

[60] See M. U. Ahmed, "Financing Rural Industries," p. 71.

[61] Atiq Rahman, "Usury Capital and Credit Relations in Bangladesh Agriculture: Some Implications for Capital Formation and Capitalistic Growth," *The Bangladesh Development Studies* 12 (No. 2, 1979): 1-46. For studies on eastern India, which has socioeconomic environments similar to those in Bangladesh, see P. K. Bardhan and A. Rudra, "Interlinkage of Land, Labor and Credit Relations: An Analysis of Village Survey Data in East India," *Economic and Political Weekly* 13 (February 1978): 367-384.

Table 27—Noninstitutional credit as a source of working capital, 1985

Type of Borrower	Before Joining Grameen Bank: Households Receiving Noninstitutional Credit	Before Joining Grameen Bank: Working Capital Financed with Noninstitutional Credit	During Year of Survey: Households Receiving Noninstitutional Credit	During Year of Survey: Working Capital Financed with Noninstitutional Credit
	(percent)			
Sex				
Male	23.6	29.7	5.2	4.3
Female	15.4	31.3	0.7	0.4
Occupation				
Industry	23.6	16.5	4.9	4.5
Trading and shopkeeping	24.5	30.8	3.8	3.2
Other	12.2	51.4	0.7	0.4
Total	19.1	30.0	2.8	3.0

Source: Survey of 975 borrowers.

within the target group in the project villages. Most institutional credit outside of the Grameen Bank was received by nontarget-group households; only 3 percent of the target group (in the combined categories B and C in the table) received such loans, compared with 28 percent of the nontarget group. Outside the bank, only 9 percent of households received institutional credit, which accounted for about 52 percent of the total amount of loans received by these households. With Grameen Bank intervention, the proportion of households receiving institutional credit increased to 30 percent and the share of institutional loans in total loans increased to about 78 percent.

Effect on Capital Accumulation

The most direct effect of the bank is on accumulation of capital, both working and fixed. A Grameen Bank loan is repaid in small installments every week, so it is easy for a borrower to pay an installment from income, leaving capital intact. A Grameen

Table 28—Amount of loans received from various sources, by different groups of rural households, 1984/85

Household Category	Number of Loans	Noninstitutional Credit: Households Receiving Loans	Noninstitutional Credit: Average Loan Received per Household	Institutional Credit: Households Receiving Loans	Institutional Credit: Average Loan Received per Household
		(percent)	(Tk)	(percent)	(Tk)
A. Grameen Bank member	69	5.8	32	94.2	3,300
B. Nonparticipant within target group in project village	68	20.6	245	4.4	279
C. Grameen Bank target group in control village	63	17.5	298	1.6	16
D. Nontarget group	79	15.2	578	27.8	1,075
Total	279	14.7	345	30.1	1,192
Grameen Bank nonmember (groups B, C, and D)	210	17.6	448	9.0	500

Source: Household survey in project and control villages.

Table 29—Changes in working capital after joining Grameen Bank, by type of borrower, 1985

Type of Borrower	Number of Borrowers	Borrowers Reporting Working Capital		Amount of Working Capital per Borrower at Current Prices		
		Before Membership	At Time of Survey	Before Membership	At Time of Survey	Increase per Year[a]
		(percent)	(percent)	(Tk)	(Tk)	(percent)
Sex						
Male	441	54.0	85.0	1,237	4,141	56
Female	534	41.9	79.4	336	1,713	88
Occupation						
Processing and manufacturing	245	70.2	95.1	908	3,544	67
Trading and shopkeeping	319	49.2	87.5	1,166	4,083	59
Other	411	32.4	69.8	316	1,386	75
Total	975	47.4	81.9	743	2,811	64

Source: Survey of 975 borrowers.
[a] Calculated on the basis of an average length of membership of 2.25 years, after adjusting for inflation of 10 percent a year.

Bank member is expected to have a larger amount of capital when taking a repeat loan than at the time of becoming a member. Also, since the bank provides a repeat loan in a relatively larger amount, it is possible for the borrower to divert some credit or incremental income for making medium- and long-term investments, such as the purchase of cattle or acquisition of machinery, tools, and equipment.

The change in the status of borrower households vis-à-vis working capital after joining the Grameen Bank will be seen from Table 29. Less than half the borrowers reported investment in working capital before they joined the bank. At the time of the 1985 borrower survey the number was 82 percent, indicating a vast increase in the proportion of households undertaking new enterprises. The average amount of working capital per borrower household increased nearly four times, from Tk 743 to Tk 2,811, within about 2.25 years. This period was the average length of bank membership for the sample borrower households. (See Table 20 for distribution of sample borrowers by length of membership.) Even after adjusting for inflation, which has been about 10 percent a year, the average increase comes to a substantial 64 percent a year. This increase has been even faster for female borrowers and for households engaged in services and manufacturing. For other activities, such as livestock raising, investment in fixed assets is probably more important than working capital.

The effect of the Grameen Bank on accumulation of capital can also be assessed by differentiating the sample borrowers according to length of membership with the bank and looking at their investment behavior (see Table 30). About 80 percent of households reported accumulation of nonagricultural capital after joining the bank, and the average amount of investment was higher for longtime borrowers than for newer ones. Fifty-four percent of households reported some investment in crop cultivation after joining the bank. This type of investment increased up to the third year of membership and was lower for longtime borrowers. The marginal accumulation in crop cultivation also declined sharply, even for borrowers of less than three years' standing.

For investments in housing, education, and sanitation, which are not directly productive but would promote human capital formation in the long run, both the average and the incremental investments increased with length of membership in the bank. It appears that in the initial years, when the

Table 30—Accumulation of capital after joining Grameen Bank, by length of membership and sex of borrower, 1985

Length of Membership/ Sex of Borrower	Number of Borrowers	Nonagricultural Investment[a] Members Reporting	Nonagricultural Investment[a] Average Amount per Borrower	Agricultural Investment[b] Members Reporting	Agricultural Investment[b] Average Amount per Borrower	Social Investment[c] Members Reporting	Social Investment[c] Average Amount per Borrower
		(percent)	(Tk)	(percent)	(Tk)	(percent)	(Tk)
Less than one year	269	79.6	1,377	48.3	1,002	82.5	662
One to two years	372	86.6	2,597	61.3	1,923	89.2	989
Two to three years	164	77.4	2,968	56.7	2,259	83.5	1,656
Three years or more	170	65.9	3,751	42.9	1,926	71.2	3,541
All borrowers	975	79.5	2,524	53.6	1,726	83.3	1,456
Male	441	81.4	3,505	54.0	1,813	87.1	1,892
Female	534	77.9	1,714	53.4	1,654	80.1	1,096

Source: Survey of 975 borrowers.
[a] Includes expenditures on purchase of transport and industrial equipment, and additions to working capital in nonagricultural enterprises.
[b] Includes expenditures on purchase of cattle, agricultural equipment, and land.
[c] Includes expenditures on housing, education, and sanitation.

level of investment is low and hence the productivity of capital is high, the tendency is to accumulate more in productive lines. A decline in the rate of return with increases in the volume of capital,[62] however, induces longtime borrowers to move to social investments and conspicuous consumption. The expenditure on social and religious ceremony (not shown in the table) is estimated at Tk 928 and Tk 801 for first- and second-time borrowers, respectively, but Tk 2,180 and Tk 4,783 for third-time and longer borrowers.

Table 31 shows how successive Grameen Bank loans contribute to the increase in equity (own investment) capital according to the length of membership of the borrower household. Average investment from own funds increased from Tk 870 for first-time borrowers to more than Tk 5,700 for members who had borrowed four times or more. The share of equity in total invest-

Table 31—Effect of Grameen Bank on growth of equity capital, 1985

Length of Membership	Average Amount of Current Loan	Average Accumulation of Capital After Joining Bank: Total	Average Accumulation of Capital After Joining Bank: Equity	Average Share of Equity in Accumulated Capital
	(Tk)	(Tk)		(percent)
Less than one year	2,181	3,041	870	28.3
One to two years	3,205	5,509	2,304	41.8
Two to three years	3,702	6,883	3,181	46.2
Three years or more	3,450	9,218	5,768	62.6

Source: Survey of 975 borrowers.

[62] This was found to be the case in an earlier evaluation of the Grameen Bank. See Hossain, *Credit for the Rural Poor,* p. 90.

ment increased from 28 percent for first-time borrowers to 63 percent for members borrowing four times or more.

An important asset for the rural poor is livestock. More than two-fifths of total loans disbursed by the Grameen Bank are now taken for livestock raising. Changes in the pattern of livestock ownership after Grameen Bank intervention are shown in Table 32, which compares the ownership pattern at the time of joining the bank (by processing information provided in the membership application form) with that at the time of the survey (from information reported by the sample borrowers). About 63 percent of households did not own any cattle at the time of joining the bank, but this figure had been reduced to 45 percent by the time of the survey. Also, a much larger proportion of households owned two or more cattle at the time of the survey than before joining the bank. The average number of cattle owned increased by about 67 percent during this period. The proportion of households owning goats, however, did not increase much, although the number of goats owned per household increased by about 18 percent.

Table 32—Changes in pattern of livestock ownership after intervention by Grameen Bank, 1985

Number of Animals Owned by Household	Ownership at Time of Joining Bank (N = 4,641)		Ownership at Time of Survey (N = 975)	
	Cattle	Goats	Cattle	Goats
	(percent of households)			
None	62.7	68.1	44.5	65.8
One	20.3	17.6	23.8	13.8
Two	12.0	9.1	21.8	11.0
Three	3.1	3.7	6.4	4.5
Four or more	1.9	1.5	3.5	4.7
Total	100.0	100.0	100.0	100.0[a]
	(number of animals)			
Average per 100 households	61	60	102	71

Sources: Grameen Bank membership application forms and the survey of 975 borrowers.
Note: N is the size of the sample.
[a] Parts do not add to total because of rounding.

Effect on Occupation and Employment

The main objective of the Grameen Bank is to create opportunities for a vast unutilized labor resource by extending credit facilities to poor men and women for self-employment activities. Any evaluation of the bank should thus quantify the extent to which this has been achieved. Two aspects of employment generation are highlighted here: generation of new employment for the previously unemployed and generation of additional employment for the underemployed.

The change in the principal occupation of borrowers as a result of Grameen Bank membership is shown in Table 33. About 31 percent of the borrowers reported themselves unemployed before joining the bank. Thus the bank helped to generate new employment for about one-fifth of its members. This new employment was generated mostly for female members, half of whom reported having no primary occupation before joining the bank; at the time of the survey this proportion had been reduced to 21 percent. Thus about one-third of the female members who had been unpaid domestic workers had become income earners. It is noteworthy that one-fifth of the female borrowers reported having no principal income-earning occupation at the time of the survey. Some of them may have taken a loan on behalf of the husband or the male head of household,[63] but some may have been engaged in livestock raising or cottage industry as part-time workers. About 44 percent of the sample female borrowers took credit for livestock

[63] R. I. Rahman found that 12 percent of female borrowers surrendered the entire loan amount to their husbands or male guardians, but 77 percent of them utilized more than three-fourths of the loan themselves. See Rushidan Islam Rahman, *Impact of Grameen Bank on the Situation of Poor Rural Women,* Grameen Bank Evaluation Project Working Paper 1 (Dhaka: Bangladesh Institute of Development Studies, 1986), pp. 32-35.

Table 33—Changes in occupation of borrowers after joining Grameen Bank, 1985

Principal Occupation	Before Joining Grameen Bank Male (N=441)	Female (N=534)	All (N=975)	At Time of Survey Male (N=441)	Female (N=534)	All (N=975)
	(percent of borrowers)					
Cultivation of family farm	7.3	0.4	3.5	6.3	0.4	3.1
Agricultural wage labor	20.0	1.9	10.1	2.1	0.2	1.0
Livestock and poultry raising	0.4	0.9	0.7	6.5	7.2	6.9
Processing and manufacturing	17.2	38.4	28.8	16.6	53.4	36.7
Trading and shopkeeping	32.2	5.4	17.5	46.3	15.9	29.6
Transport operations	5.9	0.2	2.7	9.5	0.4	4.9
Construction and other services	10.4	2.4	6.1	12.7	1.9	5.3
Unemployed	6.6	50.4	30.6	0.0	20.8	11.4
Total	100.0	100.0	100.0	100.0	100.0[a]	100.0[a]

Source: Survey of 975 borrowers.
Note: N is the size of the sample.
[a] Parts do not add to total because of rounding.

raising, but only 7 percent reported it as their principal occupation at the time of the survey.

Only 7 percent of male members reported being unemployed before joining the bank. For them, new employment was created mostly in livestock farming. For those already employed, there was a change in occupational pattern away from agricultural wage labor to petty trade. The proportion of male members who reported agricultural wage labor as their principal occupation was 20 percent before joining the bank but only 2 percent at the time of the survey, while the number of those who reported trading as their principal occupation increased from 32 to 46 percent during this period. The withdrawal of this significant proportion of Grameen Bank members from the agricultural labor market is expected to have an indirect positive effect on employment and earnings of the remaining agricultural wage laborers who did not join the bank.

The generation of new employment is also reflected in changes in the proportion of household members participating in income-earning activities. The in-depth household survey collected information about the composition of the households from which labor force participation rates (workers as a proportion of household members) have been estimated for the project and control groups (see Table 34). The average household size for the sample villages was estimated at 5.60 persons, which is comparable to 5.74 estimated by a 1981/82 national survey[64] for rural areas. The proportion of children up to age 14 was, however, lower in the sample villages (41 percent) than in the country as a whole (47 percent), as estimated by the 1981 population census.[65] The estimated labor force participation rate was 33 percent for the survey sample, compared with 30 percent for the entire country in the 1983/84 labor force survey.[66]

The comparison between Grameen Bank members and nonparticipants in the target group showed a statistically insignificant difference in household size and com-

[64] Bangladesh, Bureau of Statistics, *Report of the Bangladesh Household Expenditure Survey, 1981-82* (Dhaka: Ministry of Planning, 1986).
[65] Bangladesh, Bureau of Statistics, *Final Report of Bangladesh Population Census, 1981: Analytical Findings and National Tables* (Dhaka: Government Press, 1984).
[66] Bangladesh, *Labor Force Survey, 1983-84.*

Table 34—Labor force participation rates of members and nonparticipant groups, 1984/85

Variable	Member Households (N = 69)	Target-Group Nonparticipant Households: Project Village (N = 68)	Target-Group Nonparticipant Households: Control Village (N = 63)	Nontarget Group Households (N = 79)	All Households (N = 279)
			(number of persons)		
Average size of household	5.14	4.90	5.03	7.06	5.60
Adults (age 15 +) per household					
Male	1.57	1.46	1.59	2.32	1.76
Female	1.41	1.37	1.33	2.06	1.57
Workers per household					
Male	1.59	1.40	1.43	2.00	1.62
Female	0.51	0.21	0.24	0.03	0.24
			(percent)		
Workers as percentage of all household members	40.9	32.9	33.2	28.8	33.2
Workers as percentage of adult household members	70.5	56.9	57.2	46.3	55.9
Female workers as percentage of female adults	36.2	15.3	18.0	1.5	15.3
Female workers as percentage of total workers	24.3	13.0	14.4	1.5	12.9

Source: Household survey in project and control villages.
Note: N is the size of the sample.

position. But the number of workers was higher for member households than for target-group nonparticipants in both project and control villages. Workers constituted 41 percent of all household members among bank participants, compared with 33 percent for nonparticipants in the same landholding group. The difference is, however, mostly due to female workers, who were 36 percent of adult females in the project group, compared with 15 to 18 percent in the control groups. The difference in the number of female workers between bank members and the control group is statistically significant at less than 5 percent probability. About 25 percent of the workers in member households were women, compared with 14 percent for nonparticipants in the target group and an almost insignificant 1.5 percent among nontarget-group households. The positive contribution of Grameen Bank in creating new employment for women, thereby reducing the dependency ratio in the households, is amply demonstrated by these figures.

The effect of Grameen Bank loans on reducing underemployment is difficult to quantify accurately without conducting a costly and time-consuming regular employment survey throughout the year. Instead, we asked respondents in the borrower survey to report their average number of days of employment per month and average number of hours worked per day in the occupation for which the loan was taken, both before they joined the bank and in the year of the survey. From this somewhat imprecise information it is possible to estimate standard eight-hour days of employment in the enterprise undertaken with the loan, which at least gives a qualitative indication of the change in underemployment as a result of Grameen Bank intervention (see Table 35).

Before joining the bank, an average worker in a member household was em-

Table 35—Increase in employment in activity for which loan was taken, by occupation and sex of borrowers, 1985

Occupation	Number of Members	Employment: Before Membership	Employment: At Time of Survey	Increase in Employment
		(eight-hour days/month)		
Crop cultivation	29	7.6	18.7	11.1
Livestock and poultry raising	319	3.4	16.7	13.3
Processing and manufacturing	245	10.8	22.0	11.2
Trading	274	4.7	16.0	11.3
Shopkeeping	45	8.6	18.5	9.9
Transport operations	43	4.9	20.3	15.4
Other	20	0.9	3.9	3.0
Total	975	6.0	18.0	12.0
Male	441	9.4	21.9	12.5
Female	534	3.3	15.0	11.7

Source: Survey of 975 borrowers.

ployed for about 6 standard days of work a month in the activity for which the loan was taken. At the time of the survey, such employment was estimated at 18 days. The Grameen Bank loans thus generated additional employment in that activity for about 12 days a month. Some of this additional employment may be due to reallocation of labor from other activities; for example, from agricultural wage labor for male workers and domestic labor for female workers. Adequate information is not available to quantify the extent of such reallocation. The additional employment generated in an activity was almost the same for male and female workers, although the average monthly employment for females was 7 days less than for males. Manufacturing and transport services were relatively more full-time occupations than trading and livestock raising. The additional employment generated was highest for transport services (15 days), but did not vary much for other occupations (10 to 15 days).

A separate survey of a subsample of 151 female borrowers and 241 other households covered in this study collected information on time allocation for one month by various members of the household to the activity organized by the female borrowers.[67] Female members worked an average of 4.9 hours a day (18 standard eight-hour working days a month), of which 4.2 hours (16 standard days a month) were spent in the loan-financed activity. In comparison, housewives in the target-group nonparticipant households spent 0.64 hours a day (2.4 standard days a month) in income-earning or expenditure-saving economic activities within the household, and housewives in nontarget-group households spent 0.55 hours a day (2.1 standard days a month) in these activities. This comparison suggests that the Grameen Bank loan helped to increase female employment by 16 standard eight-hour days a month. The survey also found that the activity undertaken by female borrowers provided employment to other members of the household for 2.6 hours a day per household, or about 10 standard eight-hour days a month.

Effect on Income

The findings reported in the previous section demonstrate that Grameen Bank

[67] R. I. Rahman, *Impact of Grameen Bank*, pp. 17, 53.

credit has a positive effect on income. This section attempts to quantify this effect from direct information on income collected through the 1985 field surveys. However, accurate estimation of income is difficult, since the borrowers do not keep any records of their business. Thus the results may contain some margin of error.

Table 36 shows the borrowers' perception of the effect of Grameen Bank membership on their economic condition. Only 1.9 percent of them reported that their economic condition had deteriorated after joining the bank, and another 5.7 percent reported that there had been no improvement. Thus an overwhelming majority (91 percent) thought that the bank had made a positive contribution to their standard of living. This positive response was slightly higher for male borrowers than for females. The stated primary reason for the improvement was accumulation of capital, while additional employment in productive work and fruit and vegetable growing were given as the most important secondary reasons (see Table 37).

The in-depth household survey in five project and two control villages collected detailed information on the gross value of output and the cost of production for different production and service activities in which the sample households were involved. Table 38 presents the estimates of income from this information for member households and for nonparticipant households within the target group in both project and control villages. The income effect of the Grameen Bank can be estimated by compar-

Table 36—Borrowers' perception of change in their economic condition after joining Grameen Bank, 1985

Economic Condition	Male Borrowers (N=441)	Female Borrowers (N=534)	All Borrowers (N=975)
		(percent)	
Improved	92.7	90.0	91.2
Unchanged	5.2	6.2	5.7
Deteriorated	1.4	2.2	1.9
No response	0.7	1.7	1.2
Total	100.0	100.0[a]	100.0

Source: Survey of 975 borrowers.
Note: N is the size of the sample.
[a] Parts do not add to total because of rounding.

Table 37—Borrowers stated reasons for their improved economic condition after joining Grameen Bank, 1985

Reason	Primary Reason			Primary and Secondary Reasons[a]		
	Male	Female	Total	Male	Female	Total
			(percent)			
Free from clutches of *mohajons*[b]	12.4	5.3	8.6	33.3	13.5	22.9
Accumulation of capital	67.7	52.6	59.8	88.4	79.2	83.6
Additional employment in productive work	8.7	31.3	20.5	28.0	65.6	47.7
Increase in wage rate	1.0	1.4	1.2	7.8	11.4	9.7
More involvement in poultry raising	0.0	0.5	0.2	13.9	19.7	16.9
More involvement in vegetable and fruit growing	0.5	0.2	0.4	52.0	38.2	44.8
Additional investment in agriculture	2.8	1.4	2.0	27.3	14.2	20.4
Other	7.1	7.3	7.2	19.4	24.5	22.1
Total	100.0[c]	100.0	100.0[c]	270[c]	266[c]	268[c]

Source: Survey of 975 borrowers.
[a] Respondents were asked to report three factors behind the improvement in their condition, in order of importance. These columns show the distribution of all responses. The figures and the totals show that respondents reported, on average, 2.68 reasons.
[b] Professional moneylenders who are a primary source of informal, noninstitutional loans to the poor.
[c] Parts do not add to total because of rounding.

Table 38—Level and structure of household income for Grameen Bank members and comparable nonparticipant groups, 1984/85

Income Component	Grameen Bank Members (Group 1)	Target-Group Nonparticipants: Project Villages (Group 2)	Target-Group Nonparticipants: Control Villages (Group 3)	Difference: Group 1 Over Group 2	Difference: Group 1 Over Group 3
		(Tk/household)		(percent)	
Agriculture	5,606	5,323	6,577	5.3	−14.8
Crop cultivation	2,782	2,199	2,312	26.5	20.3
Kitchen garden	512	305	567	67.9	−9.7
Livestock and fisheries	941	788	928	19.4	1.4
Agricultural wage labor	1,371	2,031	2,770	−32.5	−50.5
Nonagriculture	12,528	8,881	6,119	41.1	104.7
Processing and manufacturing	4,355	2,753	1,119	58.2	289.2
Trading	3,859	2,234	1,369	72.7	181.9
Transport operations	1,352	572	735	136.4	83.9
Nonagricultural wage labor	670	826	738	−18.9	−9.2
Other nonagricultural (earthwork and self-services)	2,292	2,496	2,158	−8.2	6.2
Household income	18,134	14,204	12,696	27.6	42.8
Per capita income	3,524	2,900	2,523	21.5	39.7

Source: Household survey in project and control villages.

ing the income of bank members with that for the other two groups.

The average household income for the bank members was about 43 percent higher than that for the target group in the control villages and about 28 percent higher than for the target-group nonparticipants in the project villages. The difference is statistically significant. The agricultural income, particularly income from cultivation of family farms, was broadly similar across the groups. The positive income effect was mainly due to large increases in income from processing and manufacturing, trading, and transport operations—activities financed by Grameen Bank loans. The total income from these three nonagricultural activities was about two times higher for bank members than for the target group in the control villages, and about three-fourths higher for members than for target-group nonparticipants in the project villages.

An important point shown in Table 38 is that income from wage labor and various self-services is substantially higher for nonparticipants (Tk 5,353 per household) than for bank members (Tk 4,333) within the project villages. This indicates that Grameen Bank contributes indirectly to the growth of income of nonparticipant households through some withdrawal of supply from the labor market on the part of members. In a study of the effect of the Grameen Bank on local power structures, Rahman interviewed 49 local leaders, and 43 of them complained that Grameen Bank activities had reduced the supply of agricultural laborers in the locality.[68] Based on their reports, it was estimated that the wage rate for agricultural laborers increased by 19 percent a year—from Tk 14.2 to Tk 24.5 a day within a three-year period. The increase was higher during the peak season (20 percent) than during the slack season (17 percent). For Bangladesh as a whole, the nominal agricultural wage rate increased by 16 percent a year during 1982-85, when the cost-of-living index increased by 10 percent a year. The

[68] Atiur Rahman, *Impact of Grameen Bank Intervention on Rural Power Structure,* Grameen Bank Evaluation Project Working Paper 2 (Dhaka: Bangladesh Institute of Development Studies, 1986).

Table 39—Annual household income in project and control villages, by landownership group, 1984/85

Landownership Group	Share of Households in Group	Project Village	Control Village	Difference in Project Over Control Villages
(acres)	(percent)	(Tk/household)		(percent)
None	10.5	10,256	8,090	26.8
0.01–0.49	42.5	16,381	14,553	12.6
0.50–2.49	31.0	20,349	20,809	−2.2
2.50–4.99	11.0	29,110	29,549	−1.5
5.00 or more	5.0	41,074	46,776	−12.2
All groups	100.0	19,603	16,970[a]	15.5

Source: Household survey in project and control villages.
[a] The pattern of landownership is somewhat different in the project and control villages. To make the comparison meaningful, the average household income for the control villages has been estimated as weighted average by multiplying the group-specific average income by the proportion of households in each group in the project village.

increase in the real wage rate was higher in the project area.

An important question at this point is whether Grameen Bank intervention leads to an overall increase in rural income or merely achieves a redistribution of income from the rich to the poor—and among the poor, from nonparticipant households to participants. Table 38 shows that the average household income for nonparticipants within the target group in the project villages is 12 percent higher than that for the target group in the control villages. This difference is contrary to what would be expected had there been a redistribution of income from nonparticipants to participants among the poor.

Table 39 compares the income of different landownership groups for the project and control villages. It appears from the figures that the positive income effect was highest for the absolutely landless, followed by the marginal landowners. But the income of the nontarget-group households was lower in the project villages than in the control villages, and the difference was larger for the upper landownership groups. This indicates some redistribution of income from large-landownership groups to the landless. The comparison between average household incomes in the project and control villages, however, indicates that income in project villages may have increased by about one-sixth as a result of intervention by the bank.

Alleviation of Poverty

The most commonly used measure of poverty is the "head-count ratio." It measures the proportion of households or populations whose income falls below a threshold (termed a poverty line) required for meeting basic food and nonfood needs. To estimate the poverty line, a balanced diet consisting of food items typically consumed in a country and capable of ensuring a certain level of calorie and protein intake is valued, using representative prices. The expenditure on nonbasic food needs is then taken into account to determine the income at which the minimum balanced diet can be ensured. This information is then applied to the distribution of population according to per capita income groups to estimate the population whose income falls below the poverty line.

The minimum energy and protein requirements for the average Bangladesh population, as recommended by various institutions, vary significantly. Several studies of rural poverty in Bangladesh used a consumption bundle providing an intake of 2,112 calories and 58 grams of protein,

Table 40—Estimates of proportion of poor population among participants and target-group nonparticipants, 1984/85

Variable	Grameen Bank Members	Target Group Nonparticipants		All Households	
		Project Villages	Control Villages	Project Villages	Control Villages
Gini concentration ratio of income	0.257	0.254	0.285	0.283	0.281
			(percent)		
Proportion of moderately poor population	61.0	83.7	80.4	61.5	76.3
Proportion of extremely poor population	48.0	76.0	74.4	47.1	54.6

Source: Estimated from the income distribution data obtained through the household survey in project and control villages.

which by and large conforms to the minimum diet recommended by the Food and Agriculture Organization of the United Nations.[69] At the retail prices prevailing in selected cities in 1984/85, the cost of the consumption bundle is valued at Tk 9.58 per capita per day. On the basis of the assumptions that rural prices are about 80 percent of the urban level and that 80 percent of the poverty-level income is spent on food, the poverty line is estimated at Tk 3,500 per capita per year. In order to identify the hardcore poor, a line of extreme poverty is drawn at Tk 2,975, which would satisfy 85 percent of the required calorie and protein needs.

The degree of inequality in distribution of income for the different groups of households under study and the proportion of poor population obtained from the income distribution data are reported in Table 40. The Gini concentration ratio is lower among Grameen Bank members than among the target group in control villages, but is almost the same among members and nonparticipants in project villages. There was, however, a much higher concentration of population in the lower-income brackets in both control groups than in member households. For example, households earning up to Tk 2,000 per capita (nearly two-thirds of the poverty-level income) contained almost 50 percent of the total population in both control groups, compared with only 19 percent among bank members.

Table 40 shows the proportion of population living in moderate poverty at 84 percent for target-group nonparticipants in project villages, 80 percent for the target group in control villages, but 61 percent for Grameen Bank members. Those living in extreme poverty were estimated at 48 percent for members, compared with about 75 percent for both control groups. These figures suggest that the bank has been able to lift a significant proportion of its members out of poverty.

The effect on alleviation of poverty is also felt at the village level. The relative inequality in distribution of income was similar in project and control villages, but the incidence of absolute poverty was much lower in project villages. The proportion of moderately poor population was 62 percent in project villages, compared with 76 percent in control villages.

Improvement in the standard of living of Grameen Bank participants is also suggested by a comparison of expenditures on food and nonfood basic needs for different groups of households (Table 41). The per capita expenditure on food for member households was 8 percent higher than for nonparticipants in project villages, and 35 percent higher than for the target group in control villages. The expenditure on cloth-

[69] Muqtada, "Poverty and Inequality," p. 59.

Table 41—Expenditures on basic needs by Grameen Bank members compared with control groups, 1984/85

Variable	Members	Nonparticipants in Project Villages	Target Group in Control Villages	Difference of Project Over Control Groups: Nonparticipants in Project Villages	Difference of Project Over Control Groups: Target Group in Control Villages
		(Tk/person)		(percent)	
Expenditure on food	1,965	1,823	1,456	8	35
Expenditure on cereals	1,287	1,271	1,044	1	23
Expenditure on noncereal food	578	552	412	5	40
Expenditure on clothing	170	151	129	13	32
		(Tk/household)			
Expenditure on education	156	152	105	3	49
Expenditure on health	225	210	170	7	32
Expenditure on housing	934	685	160	36	484
		(percent)			
Households incurring expenditures for education	43.5	32.4	31.7	34	37
Households incurring expenditures for housing	78.3	66.1	49.2	19	59

Source: Household survey in project and control villages.

ing for members was 13 percent higher than for nonparticipants in project villages and 32 percent higher than for the target group in control villages. The proportion of households that incurred expenses for children's education and housing improvement was larger for members than for the control groups. The investment in housing by members was about six times higher than that of the target group in control villages and about one-third higher than that of the target-group nonparticipants in project villages. Thus, the bank's emphasis on sustained improvement in the standard of living of its clientele through the social development program (see "Sixteen Decisions" in Chapter 4) seems to be supported by action on the part of its members.

8

COSTS OF OPERATION

Contrary to the conventional banking practice that the borrower comes to the bank to receive and repay a loan, the Grameen Bank goes to its clientele for both disbursement of loans and collection of repayments. The loans are small and repayments are collected in weekly installments. In addition, the bank takes the responsibility of giving its clientele intensive training in credit discipline and engages in a social development program. All this means that the paperwork and the staff time needed for servicing a given amount of loan are higher than for a normal rural credit program. The benefits of this intensive credit program, in the form of excellent recovery of loans and significant improvement of the economic condition of the extreme poor, need to be evaluated against the high costs of operation.

The annual reports of the Grameen Bank for 1984-86 state that the bank operates at a marginal profit. A close scrutiny of the accounts, however, shows that the credit operations of the bank involve losses that are compensated for by profits from deposits in other banks of a substantial amount of low-cost funds available from international donors.

Sources and Costs of Funds

The major sources of funds for the Grameen Bank are borrowings from the Bangladesh Bank and loans and grants from the International Fund for Agricultural Development (IFAD). A small amount is also available as loans from the Netherlands and the Ford Foundation. The Grameen Bank also draws on the deposits contributed by members to the Group Fund, the Emergency Fund, and special savings funds. In 1985 the bank started experimenting with deposit-banking at 25 branches, accepting deposits from all rural households, but these deposits still constitute an insignificant proportion of the funds. In 1986, deposits of non-member households amounted to Tk 3.7 million—only 3 percent of the total deposited by members in the Group Fund.

Funds borrowed from the Bangladesh Bank under its refinancing scheme bear an interest rate of 8.5 percent a year and are repayable in 10 equal quarterly installments from the date of the loan. The Grameen Bank also borrows from the Bangladesh Bank under its rural housing financing scheme at an interest rate of 3.0 percent a year, repayable within 15 years on a quarterly installment basis. Two loans from IFAD have been obtained under two separate agreements between the Grameen Bank and the government of Bangladesh. The first loan is repayable in 15 years, beginning in March 1991, and bears an interest rate of 3.0 percent a year. The second loan, sanctioned in 1985, is repayable in 20 installments beginning in March 1995 at 2.0 percent annual interest. Financial accommodation through a temporary overdraft arrangement is available from a commercial bank at 16 percent a year. The Grameen Bank pays 8.5 percent annual interest on deposits, including the unutilized portion of the Group Fund.

Because of the widely varying rates of interest, the cost of Grameen Bank funds depends on the relative share of the various sources. The composition of the sources of funds and its change over the 1984-86 period is shown in Table 42. In 1986 the paid-up capital was only about 4 percent of the total liability of the bank, while borrowings accounted for 80 percent and deposits another 16 percent of the total liability. In 1985, borrowings from the IFAD loan accounted for 33 percent of total funds, and borrowings from the Bangladesh Bank were another 38 percent. In 1986, borrowings

Table 42—Shares of Grameen Bank funds from various sources, 1984-86

Source	1984 Amount Obtained	1984 Share of Total Fund	1985 Amount Obtained	1985 Share of Total Fund	1986 Amount Obtained	1986 Share of Total Fund
	(Tk million)	(percent)	(Tk million)	(percent)	(Tk million)	(percent)
Borrowings	311.3	82.6	433.9	79.5	716.8	79.6
Bangladesh Bank	154.6	41.0	206.6	37.8	80.8	9.0
International Fund for Agricultural Development	139.5	37.0	180.1	33.0	587.6	65.3
Other[a]	17.2	4.6	47.2	8.7	48.4	5.4
Deposits	38.3	10.2	79.8	14.6	145.0	16.1
Group Fund	24.5	6.5	48.7	8.9	81.9	9.1
Emergency Fund	6.4	1.7	12.6	2.3	22.0	2.4
Other	7.4	2.0	18.5	3.4	41.1	4.6
Paid-up capital	25.2	6.7	30.0	5.5	35.5	3.9
Reserves	1.6	0.4	2.3	0.4	2.7	0.3
Total	376.7[b]	100.0[b]	546.0	100.0	900.0	100.0[b]

Sources: Grameen Bank, *Annual Report,* 1984, 1985, 1986 (Dhaka: Grameen Bank, 1985, 1986, 1987).
Note: n.a. means not available.
[a] Includes drawings from a loan from the Netherlands.
[b] Parts do not add to total because of rounding.

from the Bangladesh Bank declined substantially to only 9 percent of total funds, while the share of the IFAD loan increased to 65 percent. The share of deposits increased from 10 percent in 1984 to 16 percent in 1986, mainly because of increased accumulation in the Group Fund and Emergency Fund.

The estimated cost of Grameen Bank funds is reported in Table 43. As expected, the Bangladesh Bank is the highest-cost source, while IFAD is the lowest. In 1985 the average cost of funds was 5.8 percent, but the average came down to 3.6 percent in 1986, largely because of increased drawings from the IFAD loan. The interest payment on the IFAD loan in 1986 was about 66 percent higher than in the previous year, while the interest paid to the Bangladesh Bank declined by 36 percent in 1986. The total liability of the Grameen Bank in 1986 was 65 percent higher than in 1985, while the interest payment increased by only 4.7 percent in 1986.

Table 43—Changes in cost of Grameen Bank funds, 1984-86

Source	Amount of Interest Paid 1984	Amount of Interest Paid 1985	Amount of Interest Paid 1986	Effective Cost of Funds 1984	Effective Cost of Funds 1985	Effective Cost of Funds 1986
	(Tk million)			(percent)		
Borrowings	14.12	25.54[a]	23.55	5.1	5.9	3.3
Bangladesh Bank	11.16	18.30	11.68	7.2	8.9	n.a.
International Fund for Agricultural Development	2.32	5.32	8.84	1.7	3.0	n.a.
Other	0.64	1.91	3.03	3.7	4.1	n.a.
Deposits	1.84	4.09	7.47	4.8	5.1	5.2
Total	15.96	29.63	31.02	4.6	5.8	3.6

Sources: Grameen Bank, *Annual Report,* 1984, 1985, 1986 (Dhaka: Grameen Bank, 1985, 1986, 1987).
Note: n.a. means not available.
[a] Parts do not add to total because of rounding.

Table 44—Trends in use of Grameen Bank funds, 1984-86

Item	Amount			Share of Total Property and Assets			Incremental Funds in 1986 over 1985	
	1984	1985	1986	1984	1985	1986	Amount	Share of Total
	(Tk million)			(percent)			(Tk million)	(percent)
Cash balance[a]	20.0	19.1	19.4	5.3	3.5	2.2	0.3	0.1
Loans and advances[b]	177.5	246.1	331.7	47.1	45.1	36.9	85.6	24.2
Fixed- and short-term deposits	146.5	218.5	435.5	38.9	40.0	48.4	217.0	61.3
Fixed and other assets[c]	32.7	62.3	113.3	8.7	11.4	12.6	51.0	14.4
Total property and assets	376.7	546.0	900.0[d]	100.0	100.0	100.0[d]	354.0[d]	100.0

Sources: Grameen Bank, *Annual Report,* 1984, 1985, 1986 (Dhaka: Grameen Bank, 1985, 1986, 1987).
[a] A large part of the cash balance was in short-term deposit accounts with other banks.
[b] Includes loans given for house-building purposes.
[c] "Other assets" includes interest accrued on the loans but not yet recovered.
[d] Parts do not add to total because of rounding.

Use of Funds and Income

The Grameen Bank operates to mobilize the poor from households with less than 0.5 acre of land and provide loans to them to improve their living standard. All of the bank's work centers around this activity and the staff are recruited for this purpose. The bank earns 16 percent interest annually on the total amount of outstanding loans with members, which is normally about 50 percent of the amount of loans disbursed to members during the year. The bank also provides housing loans up to Tk 18,000, which are recovered in weekly installments for periods of up to 10 years. Housing loans bear an interest rate of 5.0 percent a year. The income from housing loans, however, is insignificant. By the end of 1986, the cumulative amount disbursed for housing was only Tk 27 million—about 1.8 percent of the amount of normal loans. The actual amount of interest received on loan operations was 13.2 percent of the amount of loans in 1986—lower than in 1985 (14.4 percent).

As shown in Tables 44 and 45, a major source of Grameen Bank's income is from investment of a substantial part of available funds in fixed- and short-term deposits with other banks. This has become a highly profitable line of business, since the funds are available at very low cost (particularly from the IFAD loan), while fixed-term deposits

Table 45—Sources and composition of Grameen Bank income, 1984-86

Source of Income	Amount			Share of Total Income		
	1984	1985	1986	1984	1985	1986
	(Tk million)			(percent)		
Interest on loans and advances	23.39	35.55	43.91	66.1	54.1	48.8
Interest on fixed- and short-term deposits	11.90	29.77	45.68	33.6	45.3	50.8
Interest on government treasury bills	0.09	0.36	0.31	0.3	0.6	0.4
Total	35.38	65.69[a]	89.90	100.0	100.0	100.0

Sources: Grameen Bank, *Annual Report,* 1984, 1985, 1986 (Dhaka: Grameen Bank, 1985, 1986, 1987).
[a] Parts do not add to total because of rounding.

Table 46—Trends in cost of administration of loan operations, 1984-86

Item	Total Expenses			Expenses as Share of Total Liability			Expenses as Share of Amount of Loans		
	1984	1985	1986	1984	1985	1986	1984	1985	1986
	(Tk million)			(percent)			(percent)		
Salary and allowances	9.43	25.53	43.76	2.5	4.7	4.9	5.3	10.4	13.2
Other expenses	4.53	8.44	13.67	1.2	1.6	1.5	2.6	3.4	4.1
Depreciation	0.71	1.08	1.44	0.2	0.2	0.2	0.4	0.4	0.4
Provision for bad debt	0.50	0.60	1.10	0.1	0.1	0.1	0.3	0.2	0.3
Total	15.17	35.65	59.96[a]	4.0	6.5[a]	6.7	8.6	14.5[a]	18.1[a]

Sources: Grameen Bank, *Annual Report,* 1984, 1985, 1986 (Dhaka: Grameen Bank, 1985, 1986, 1987).
[a] Parts do not add to total because of rounding.

earn interest of 14.0 percent a year and short-term deposits, 8.5 percent. Very little staff time is needed for these financial transactions. In 1986 these deposits accounted for 48 percent of total property and assets—an increase from 39 percent in 1984. The interest earned on the deposits increased by nearly three times during 1984-86, while the interest earned on loans and advances to Grameen Bank members increased by 88 percent in this period. In 1984 the interest on these deposits accounted for about one-third of the income of the bank. By 1986 almost half of the bank's income came from this source.

In 1986 the incremental fund was Tk 354 million more than in 1985 (80 percent was obtained through additional borrowing, and 18 percent through additional deposits). Only 24 percent of the incremental fund was used for loans and advances, compared with 61 percent for additional investment in fixed- and short-term deposits and 14 percent for accumulation of assets (Table 44).

Cost of Administration

The extent and trends of operating expenses of Grameen Bank (excluding the cost of funds) are shown in Table 46. The major expenses are the salary and allowances of the staff (73 percent in 1986) and these have increased at a faster rate than other expenses. The bank makes very little provision for bad debt, which is based on an estimate of the actual amount of loans and advances remaining unrealized after a certain (unspecified) period of time. In 1986 the costs of operation stood at 6.7 percent of the total amount of funds. The incremental cost in 1986 over 1985 was 6.9 percent of the incremental fund handled by the bank.

Because the bank's activity centers around the mobilization of the poor and the administration of loans to them, the cost of its operation should be related to the amount of loans and advances rather than to total funds handled by the bank. This is shown in Table 46. In 1986 the costs of operation stood at 18.1 percent of the amount of loans and advances—a figure that must be regarded as very high. With the expansion of the bank, the costs of operation have increased rapidly (8.6 percent in 1984 and 14.5 percent in 1985), mostly because of increases in salary and allowances, which were only 5.3 percent of the amount of loans and advances in 1984, but nearly doubled to 10.4 percent in 1985 and further to 13.2 percent in 1986. The large increase in staff costs in 1985 was due to salary increases for government officials that were effective from June 1, 1985. The increase in staff costs continued in 1986 because the higher salaries were paid for only seven months in 1985, but for the full year in 1986. The magnitude of staff costs at the present level of salaries is thus reflected by the 1986 figures.

It should, however, be recognized that during this expansion phase the costs of operation are expected to be high because of the large number of new branches opening every year. In 1985 the bank opened

Table 47—Unit costs of operation of bank branches, by age of branch, 1984/85

Age of Branch	Salary and Allowances	Other Expenses	Total Expenses	Amount of Loans Outstanding with Borrowers[a]	Expenses as Share of Outstanding Loans
	(Tk thousand)				(percent)
Up to 6 months	30.8	9.6	40.4	165	24.5
6 months to 1.0 year	46.0	13.0	59.0	365	16.2
1.0–1.5 years	72.8	15.8	88.6	1,041	8.5
1.5–2.0 years	87.8	17.8	105.6	1,576	6.7
2.0–2.5 years	94.0	19.6	113.6	2,015	5.6
2.5–3.0 years	100.8	18.8	119.6	2,198	5.4
More than 3.0 years	107.6	20.8	128.4	2,259	5.7

Source: Compiled from unpublished information sent by the branches to the head office of Grameen Bank.
[a] The figures are averages for the beginning and the end of the year, except for the first two age categories, for which the figures refer to the end of the period.

74 new branches—nearly half of the number in operation at the end of 1984. In 1986 another 69 branches were added. The new branches take some time to reach full operation but have a fixed start-up cost. For older branches the costs of operation may be lower, as these branches should be able to expand their business without adding much to the fixed cost.

In order to see the extent to which the bank branches reap economies of scale with age, detailed information was obtained on costs of operation and amount of business for each branch for the six-month period from January to June 1985 and processed according to the age of the branches. The results are shown in Table 47. The six-month figures are multiplied by two in order to get an estimate for fiscal year 1984/85. The number of outstanding loans with borrowers increases rapidly with the age of the branch, but for branches more than two years old the increase in the amount lent is only marginal. The data indicate that a branch reaches maturity after about two years, when it handles, on average, outstanding loans of about Tk 2 million. The older branches may not have much underutilized capacity to increase business by expanding the coverage of members, although a vertical expansion is possible by increasing the average size of individual loans or increasing the number of loans for collective enterprises. At 1984/85 prices the operating costs of branches more than two years old were about 5.6 percent of the amount of outstanding loans, compared with more than 16.0 percent for branches from six months to one year old. Assuming a 100 percent salary increase effective June 1, 1985, and an unchanged amount of business, the costs of operation in 1986 for branches more than two years old would be roughly 9.3 percent, compared with 27 percent for branches from six months to one year old and 18.0 percent for all branches and higher-level supervisory offices. Thus nearly half of the existing cost of administration may be due to start-up costs.

Profitability and Implications for Subsidy

The profit-and-loss account of the Grameen Bank is summarized in Table 48. In 1984 the bank operated at a profit amounting to about 2.8 percent of the volume of loans and advances, but in 1985 and 1986 it just broke even.[70]

[70] The small negative profit for 1986 shown in Table 48 does not appear in the provisional profit-and-loss account of the bank in its 1986 *Annual Report*. This is because of the provision of Tk 1.1 million in loan losses (bad debt), which is taken out of the expenditure account and shown in the balance sheet, where the amount of loans and advances is the reported net of the bad debt.

Table 48—Profit-and-loss accounts, 1984-86

Item	Amount			As Share of Loans and Advances		
	1984	1985	1986	1984	1985	1986
	(Tk million)			(percent)		
Income	35.38	65.69	89.90	19.9	26.7	27.1
Loan operation	23.39	35.56	43.91	13.2	14.5	13.2
Other operations (investments in fixed- and short-term deposits)	11.99	30.13	45.99	6.8	12.2	13.9
Expenditures	31.13	65.27	90.99	17.5	26.5	27.4
Cost of funds for loan operation	8.10	14.19	11.94	4.6	5.7	3.6
Cost of funds for other operations	7.86	15.43	19.09	4.4	6.3	5.8
Cost of administration of loan operation	15.17	35.65	59.96	8.6	14.5	18.1
Profits	4.90	0.46	−0.75	2.8	0.2	−0.2
Loan operation	0.12	−14.28	−27.99	0.1	−5.8	−8.4
Other operations	4.13	14.70	26.90	2.3	6.0	8.1
Sundry income	0.65	0.05	0.34	0.4	. . .	0.1

Sources: Compiled from Grameen Bank, *Annual Report,* 1984, 1985, 1986 (Dhaka: Grameen Bank, 1985, 1986, 1987).

During 1985 and 1986 the margin of profit was eliminated because of the large increase in salary and allowances. However, the bank incurs substantial losses on account of loan operations that are made up by profits from the deposit of loanable funds in other banks.

In 1986 the average cost of funds was 3.6 percent, while the income from fixed- and short-term deposits was 10.6 percent of the amount deposited on these accounts (Tables 44 and 48) and 13.9 percent of the loans and advances. Thus the bank was able to make a profit on this financial transaction to the extent of about 7.0 percent of the amount used for this purpose. The profit on this account was about 10.3 percent of the amount of loans and advances made to bank members. The large profit was made possible by the bank's access to low-cost credit available from the IFAD loan at only 2.0-3.0 percent a year. But even if the Grameen Bank had drawn on the funds from the Bangladesh Bank and the deposits in the Group Fund and other funds, it could have made some profit on this financial transaction, since the cost of funds from those sources is 8.5 percent a year.

The cost of the Grameen Bank's loan operation is substantially higher than the 16.0 percent rate of interest it charges on the loans. In 1986 the cost of administration was 18.1 percent of the total amount of loans, which together with the 3.6 percent cost of funds puts the total costs of operation at 21.7 percent. If the low-cost IFAD loan had not been available, the funds would have cost 8.5 percent and the costs of operation would have been about 26.6 percent. Even if the bank could reduce its cost of administration to 9.3 percent a year, as shown by the experience of branches that are more than two years old, the 8.5 percent cost of funds and an assumed 2.5 percent for overhead expenses (for supervision by area, zone, and head offices) would make the operating costs about 20.3 percent.

The Grameen Bank thus needs a subsidy for its operations. In 1986 the cost of loan operations was Tk 71.9 million (Table 48) while the income from loans and advances was 43.9 million, implying a subsidy rate of about 39 percent. If the funds had to be borrowed at 8.5 percent a year, the costs of operation would come to Tk 89.8 million, and the subsidy to 51 percent. The bank has so far managed on its own by drawing on the IFAD loan in excess of its actual needs for loans and advances. If this situation were to change adversely for the bank, it would become difficult to break even, and the bank would have to seek a direct subsidy from the government or increase the rate of interest charged to the borrower.

9

CONCLUSIONS AND LESSONS OF EXPERIENCE

It is clear from this study that the Grameen Bank has made a positive contribution to the alleviation of poverty in the area of its operation. The bank has successfully reached its target group with credit, and has ensured both productive utilization of loans and their recovery in due time, thus helping to improve the living standard of more than 90 percent of the participants. But the bank has so far covered only about 13 percent of the target group in the districts under its operation and 4 percent of the target group throughout Bangladesh. The question remains as to whether the bank can be extended widely enough to have a significant effect on the alleviation of poverty nationally, and whether the model can be replicated in other countries.

Constraints to Expansion

An important factor in determining the successful expansion of the Grameen Bank from the supply side is institutionalization of management so that it no longer depends on the personal leadership of the bank's founder-managing director. Since 1983 the bank has made good progress toward that end. Initially, the managing director participated in the recruitment and training of all bank workers and directly supervised their activities. With the expansion of the bank, a decentralization of administration has taken place, with responsibilities and decisionmaking power vested in a dedicated cadre of midlevel officers who were developed during the 1976-82 period of experimentation with the project. Incentives for hard work have been maintained through quick promotions and transfers based on performance in the field. Borrowers' representatives, center managers, and bank officials meet frequently in regional workshops to discuss important issues pertaining to the operation of the bank and the lives of the borrowers. Senior management personnel attend these workshops to keep constantly in touch with problems in the field, and the lessons learned are often translated into policy changes. Mainly owing to the decentralization of administration and to flexible and responsive management, the Grameen Bank has been able to confine its services to its target group and ensure excellent recovery of loans in spite of the large expansion that has taken place since 1983.

Another factor on the supply side is whether the Grameen Bank can provide its intensive services without depending on subsidies from outside sources. In spite of opening a large number of new branches, the bank just broke even during 1985 and 1986 at the 16 percent rate of interest it charges on loans. This was possible, however, because of substantial profits earned by keeping part of its low-cost loanable funds (obtained from an IFAD loan) in fixed- and short-term deposits with other banks, which cannot be a long-term source of income. The actual loss on the credit operation in 1986 was 5.7 percent of the outstanding loans, and at the imputed cost of the loan funds at which other financial institutions borrow (8.5 percent a year), the loss would have been about 10.0 percent. The loss is largely due to the pressure of higher salaries and inflation on the cost, a situation that may continue. The increase in income would not be high enough to cover the rising cost because of the Tk 5,000 limit on individual loans. The amount of outstanding loans with the borrowers of an average branch reaches Tk 2 million within a period of two years but increases very little thereafter. Considering the Grameen Bank's effect on poverty alleviation, the government may decide to provide a direct subsidy to the bank, but with the bank's rapid expansion the subsidy might be a burden to the government budget.[71] It appears that the bank may have to consider some policy changes for rapid expansion of its operation.

First, the Grameen Bank might increase the 16 percent annual interest charged on loans. This could be done, without increasing the borrower's transaction cost, by reducing the proportion of the loan that has to be deposited in the Group Fund. The Group Fund is a sore point with borrowers, as they cannot reclaim the money when they leave the group. The fund imposes an additional effective rate of interest of about 10 percent of the principal outstanding with the borrower for a year. Also, only about one-sixth of the Group Fund is actually used for the purpose for which the fund was created. If the contribution to the fund were reduced from 5 percent of the loan to 2 percent, the rate of interest could be increased from 16 to 22 percent without increasing the effective transaction cost of the loan to the borrower. In this case, the increase in the nominal rate of interest should not reduce the demand for loans.

Another consideration should be an annual upward revision of the maximum limit for an individual loan, at least in line with the rate of inflation. This would increase the amount of business and the income of the older branches.

The bank might also require repeat borrowers to make repayment in monthly or even quarterly installments, which would reduce the paperwork and the cost of operation. Those who have increased their income sufficiently might be allowed to graduate and seek credit from other banks. Longtime borrowers do not pay weekly installments on a regular basis, in any case, but they do make repayment within one year.

To increase the amount of business per branch, the bank could extend its credit operations to small farmers to provide short- and medium-term agricultural loans. Such loans might be repaid in seasonal installments collected immediately after harvest. Economies of scale could also be realized by providing more loans for collective enterprises.

Finally, if the rate of interest on the loans were raised, the Grameen Bank could profitably move into savings mobilization by accepting deposits at rates of interest similar to those paid by other banks. Grameen Bank branches are generally located in more interior areas of Bangladesh than are branches of commercial banks and hence can attract more customers. The Grameen Bank could also promote deposits from its target group, who are shy about depositing the small amounts they save in commercial banks. These deposits could form an important source of loanable funds for future expansion of the bank.

From the demand side, a major constraint to expansion of the bank could be the small size of the market for nonfarm goods and services financed with Grameen Bank loans. It can be argued that Grameen Bank borrowers have not yet faced this problem because the bank is still operating within a small area, and hence the members can count on markets outside the locality. With expansion of Grameen Bank operations, the competition among nonfarm producers would increase and the members would need to count more and more on their own local markets, which might lead to lower prices and lower productivity of self-exploitation of labor. It is true that at the present low level of income, the market served by Grameen Bank borrowers is small. But from the dynamic point of view, the size of the market may not pose a serious problem for expansion (for further elaboration see the Appendix). As agricultural income increases through technological progress, the market for nonfarm goods and services increases more than proportionately.[72]

The Grameen Bank target group comprises about half of the national population,

[71] The deficit in 1986 was Tk 28 million, amounting to 2.5 percent of the allocation to rural development activities in the annual development program for 1985/86.

[72] Mellor and Lele, "Growth Linkages," pp. 35-55; and Hossain, "Agricultural Growth Linkages," pp. 1-30.

and as their income rises they will demand one another's products and services, thus mutually expanding the market. The demand for food induced by the growth in nonfarm income, unlike demand from growth in agricultural income, is met by production outside the family, thereby stimulating demand for trading and transport services. To the extent that excess production capacity exists in other sectors and capacity utilization is constrained by the lack of effective demand and by underdeveloped trading and transport services, the alleviation of poverty and the development of petty trade could stimulate the growth of production in other sectors, leading to a second round of expansion in the market for nonfarm goods and services. Also, many of the products that the Grameen Bank finances, such as livestock, handloom products, wood and bamboo furniture, and fixtures (carpentry), have strong markets both within the country and abroad.

The vertical expansion of the bank may be constrained by the low level of productivity in many activities that the bank's credit finances. This is known to be a particularly serious problem for the cottage industry sector, which receives about one-fourth of Grameen Bank loans.[73] It was observed in a previous study that with every repeat loan, the size of the loan increases, but the income increases at a much smaller rate because the rate of utilization of the loan for capital accumulation declines and the rate of return on capital also falls.[74] The same indication is obtained in the present study by the finding that longtime Grameen Bank members spend proportionately less on nonagricultural investment (relative to social investment) than do new members.

The bank management is aware of this problem, and to circumvent it the bank encourages members to take loans for collective enterprises so that they can reap economies of scale in business and can jointly own improved technology, thereby increasing labor productivity. But the success of the bank in this field has been limited. The collective enterprises have faced severe management problems, and widespread failures have put pressure on solidarity among members in many groups and centers. This has led Grameen Bank management to change its policy regarding the undertaking of collective enterprises. The bank now takes direct responsibility for initial management of the enterprises through joint ownership with the borrowers, and plans to hand over the management and full ownership after completion of a learning period by the borrowers. It is too early to evaluate the effect of this policy change. Another factor behind the widespread failure of collective enterprises may have been adherence to the same loan repayment procedure as that for individual loans (weekly repayment over a period of one year), which does not suit the financing of these relatively long-term fixed investments. To induce organization of collective enterprises, the bank may have to consider disbursing long-term credit and recovering it in seasonal (for agricultural investment) or annual installments.

Lessons of Experience

In 1984, in a study prepared for an IFAD midterm evaluation of the Grameen Bank, Dharam Ghai pointed out a number of lessons that can be learned from the bank's experience in planning and implementing development activities.[75] At that time the bank operated 89 branches and covered 70,000 members. It now operates more than 300 branches and has mobilized more than 250,000 households. But Ghai's observations are still valid today.

[73] For evidence of low productivity of a large number of cottage industries, see Mahabub Hossain, "Productivity and Profitability in Bangladesh Rural Industries," *The Bangladesh Development Studies* 12 (March-June 1984): 127-161; and Hossain, *Credit for the Rural Poor,* pp. 77-94.

[74] Hossain, *Credit for the Rural Poor,* pp. 90-92.

[75] Dharam Ghai, *An Evaluation of the Impact of the Grameen Bank Project* (Dhaka: Grameen Bank, 1984).

The Grameen Bank experience shows the vital importance of credit as an entry point for a program of social and economic development. If a program is to have an appeal for people living in abject poverty, it must offer them clear and immediate prospects for economic improvement. It is easy to sell other interventions for social development, however unconventional they may appear (as demonstrated by the acceptance of physical training and parades by traditional Muslim women), once improvements in standards of living are demonstrated. The bank has also shown that it is possible to devise projects that directly benefit the extreme poor.

The Grameen Bank experience also brings out the importance of appropriate training and orientation of the field staff for successful accomplishment of a project. The key to the success of the Grameen Bank is the orientation, approach, and human qualities inculcated in the bank workers through a training program based largely on "learning by doing," that is, through observation of and participation in the ongoing activities. Before they start work on their own, prospective staff are required to observe critically the workings of the rural economy and society and the plight of the rural poor. This helps them to understand the philosophy and approach of the bank and to develop qualities required for inspiring trust and confidence in the target group. The bank workers have demonstrated that under appropriate conditions, the idealism and energy of youth can be harnessed to combat poverty and underdevelopment.

The bank has clearly demonstrated that lack of collateral should not stand in the way of providing credit to the poor. The poor can utilize loans and repay them if effective procedures for bank transactions with them can be established. These procedures may differ according to the socioeconomic environment. In the Bangladesh context, formation of groups with a small number of like-minded people has worked well, and group solidarity and peer pressure have substituted for collateral. Other innovations of the bank are taking the bank to the people, rather than people to the bank; recovering loans in small weekly installments; and developing collective funds with compulsory savings from individuals for their mutual benefit.

The recent literature on rural financial markets emphasizes that the widespread failure of the rural credit program to achieve its objectives is attributable to following a low-interest-rate policy.[76] This policy led to rationing of credit, which benefited the upper-income groups and nonagricultural sectors because of their access to administrators, while it adversely affected mobilization of savings. The Grameen Bank experience shows that high-cost credit can keep the influential nontarget group away from a targeted credit program, but more importantly, it demonstrates the need to develop appropriate institutions for the delivery of loans.[77] Even a high-interest-rate credit program could fail because of corruption and mishandling of funds by bank staff, while an institution like the Grameen Bank is capable of successfully implementing a highly subsidized low-interest-rate credit program.

Replicability in Other Countries

The Grameen Bank is an innovative credit program and has attracted the attention of a large number of countries and international donors.[78] It has been visited by high-level government officials from Nepal, Malaysia, the Philippines, Indonesia, and the Solomon

[76] For a survey of the literature, see Adams and Vogel, "Rural Financial Markets"; and Avishay Braverman and J. Luis Guasch, "Rural Credit Markets and Institutions in Developing Countries: Lessons of Policy Analysis from Practice and Modern Theory," *World Development* 14 (No. 10/11, 1986): 1253-1267.

[77] The Grameen Bank experience supports the contention of Braverman and Guasch that a systematic and rigorous analysis of institutions and institutional environments is essential for understanding and implementing effective policy reforms of rural credit markets. Braverman and Guasch, "Rural Credit Markets," p. 1253.

[78] Mohammad Yunus, "The Grameen Bank: As I See It," International Labour Organisation, Geneva, November 1986 (mimeographed).

Islands, and by nongovernmental organizations and interested individuals from Kenya, Tanzania, and Rwanda. The Economic and Social Commission for Asia and the Pacific (ESCAP) organized a "Study Tour of Grameen Bank" for government representatives, bankers, and female program leaders of the region. IFAD is trying to launch a Grameen Bank-type credit program in Malawi. Malaysia has already formulated a project to experiment with such credit for the poor in Selangor State. Thus there is widespread interest in trying the Grameen Bank approach to credit in other countries. But will it work?

The Grameen Bank concept of generating self-employment through credit should work in countries with widespread poverty and underemployment. As long as there is surplus labor with little opportunity cost (under extreme poverty, leisure has little value), and labor can be transformed into salable commodities and services with a small amount of capital, there should be demand for Grameen Bank-type loans. And if the need for credit is genuine, and the transaction cost is such that it can be profitably used to increase household income, recovery of loans should not be a problem.

But it may not be possible to replicate universally the entire Grameen Bank approach to delivery of credit. Some elements of this approach, like formation of small homogeneous groups for group guarantee of loans and supervision of loan utilization, recovery of loans in small regular installments, and institutions for collective savings, could work well across different environments, but elements like taking the bank to the people and intensive interaction of bank staff with borrowers may not be appropriate and could become too costly for sparsely settled environments. The Grameen Bank approach has a fair chance of success in densely settled, poverty-stricken areas of Asia, but for Africa an appropriate delivery mechanism has to be worked out through trial and error. An approach or method cannot be replicated in a fixed, prescriptionary sense. Indeed, one of the important lessons of the Grameen Bank is that appropriate procedures can be developed only after considerable experimentation, through a thorough understanding of the physical and socioeconomic environment.

APPENDIX: EXPENDITURE PATTERNS AND THE MARKET FOR NONFARM GOODS AND SERVICES

The Grameen Bank finances mostly small, nonfarm enterprises conducted on a self-employment basis. One of the issues that affects successful expansion of the bank is the nature of the market for nonfarm goods and services.

In Bangladesh the per capita income is so low that after meeting the most basic food needs, people have very little to spend on commodities and services produced in the nonfarm sector. The rural processing and manufacturing sector (cottage industry) has a special problem. It is argued that this sector serves the extreme poor, who for obvious economic reasons look for inexpensive products even if they are of low quality. As income increases, people tend to reject some products of cottage industries (often called dying industries) in favor of the better-quality output of formal industries located in urban areas. Thus it is foreseeable that with the expansion of credit facilities the market will be saturated with nonfarm goods and services, leading to a downward pressure on prices and profitability, which might limit expansion of these industries.

In the specific context of the Grameen Bank, it can be argued that the members have not yet faced this problem because the bank is still operating within a small area. The services of the bank have been extended to only about 6 percent of the villages in the country, so members do not have to depend on the local market. If it is saturated they can count on the wider national market by selling products in other areas that are not yet served by the bank. With nationwide expansion of the Grameen Bank, the competition among nonfarm activities would increase and borrowers would have to count more and more on their local markets.

The above proposition, however, takes a static view of the problem. First, agricultural growth and increases in farm productivity may expand the market for nonfarm goods and services more than proportionately through linkage effects. For Bangladesh, a number of recent studies show very high expenditure elasticity of demand for nonfarm goods and services and the majority of rural industry products.[79] Second, the Grameen Bank target group is about half the total population of the country. As their income increases, they could expand the market by demanding each other's products and services.

This appendix analyzes the expenditure pattern of borrower households and compares it with that of nonparticipants in order to clarify the above issue. It cannot be claimed that the information used for this analysis is accurate. The information on expenditures for basic food items was collected for the week preceding the 1985 field surveys, and the figures have been multiplied by 52 to get expenditures for the year. Thus the information would suffer from seasonal variations in expenditures. The information on expenditures for nonfood items like clothing, housing, medical expenses, and personal household effects was collected for fiscal year 1984/85 through a one-time survey and so may contain errors on account of memory recall. The expenditure pattern has been studied by estimating an Engel function of the following type on the cross-section data:

$$E_i = \alpha_i + \beta_i E + \gamma_i E \cdot \log E + \mu_i F + \lambda_i E \cdot F, \qquad (1)$$

where E is the per capita expenditure of

[79] S. R. Osmani and N. C. Deb, "Demand for Products of Rural Industries," in *Bangladesh: Selected Issues in Employment and Development,* ed. R. Islam and M. Muqtada (New Delhi: International Labour Organisation, Asian Employment Program, 1986), pp. 151-167; and Hossain, "Agricultural Growth Linkages." pp. 1-30.

Table 49—Expenditure pattern for all sample households, 1984/85

Commodity Group	Average Budget Share	Marginal Budget Share	Expenditure Elasticity of Demand
	(percent)	(percent)	
Food	78.9	69.6	0.88
Cereals	51.3	36.1	0.70
Noncereal crops	9.5	11.5	1.21
Livestock and fisheries	9.6	11.1	1.15
Processed food	8.5	10.9	1.28
Manufactures	13.2	13.6	1.03
Cottage industry	7.7	8.5	1.10
Other industry	5.5	5.1	0.93
Services	8.0	16.8	2.10
Housing	4.0	10.8	2.68
Education	1.1	2.6	2.35
Health	2.1	3.1	1.48
Transport	0.8	0.5	0.56

Source: Estimated by fitting an Engel function on household data for 279 randomly selected households from five project villages and two control villages.

the household, E_i is the amount of expenditure on the ith commodity, and F is the number of persons in the household. This is a nonlinear function that allows for variation in the marginal budget share for the ith commodity, MBS_i, at different levels of income, which can be derived as follows:

$$MBS_i = \beta_i + \gamma_i(1 + \log E) + \lambda_i F. \quad (2)$$

To avoid the problem of heteroscedasticity, that the variability in E_i increases with the explanatory variable E, the function has been fitted in the following expenditure share form, which is obtained from (1):

$$S_i = \beta_i + \alpha_i/E + \gamma_i \log E + \mu_i \cdot F/E + \lambda_i F, \quad (3)$$

where $S_i = E_i/E$ is the share of the commodity in total expenditures.

The marginal budget shares and the expenditure elasticity of demand obtained from the estimated functions for all rural households are shown in Table 49. The results from separate estimates of the functions for different participant and nonparticipant groups are given in Table 50.

Cereal and noncereal crops are produced on farms that do not benefit from Grameen Bank loans. The average share of these commodities in the total household budget is nearly three-fifths, but as income increases, the budget share of these commodities (particularly of cereals) declines sharply. About 48 percent of the additional income is spent on these commodities and 52 percent on various nonfarm goods and services. The crops are produced mostly by the Grameen Bank nontarget group. They spent only 37 percent of their additional income on crop sector output and 63 percent on nonfarm goods and services. This shows that as agricultural income increases, the market for nonfarm goods and services expands more than proportionately. The commodities whose markets expand more than proportionately with the increase in farm household income are various rural services, cottage industry products, and processed agricultural goods.

The target-group nonparticipant households (those who own less than 0.5 acre of land but have not yet joined the bank) are the poorest among the three sample groups in Table 50. They spent 57 percent of their additional income on crop sector output and 43 percent on nonfarm goods and services. The corresponding estimates for Grameen Bank participants are 46 and 54 percent, respectively. Compared to nonparticipants the bank members spent proportionately

Table 50—Marginal budget shares and expenditure elasticity of demand for different groups of sample households, 1984/85

Commodity Group	Marginal Share of Budget: Target Group: Participant (N=69)	Marginal Share of Budget: Target Group: Non-participant (N=131)	Marginal Share of Budget: Nontarget Group (N=79)	Expenditure Elasticity of Demand: Target Group: Participant	Expenditure Elasticity of Demand: Target Group: Non-participant	Expenditure Elasticity of Demand: Nontarget Group
	(percent)	(percent)	(percent)			
Food	67.1	80.4	59.4	0.86	0.99	0.79
Cereals	36.2	44.6	25.5	0.69	0.83	0.56
Noncereal crops	9.9	12.5	11.4	1.11	1.34	0.90
Livestock and fisheries	10.4	10.5	12.2	1.15	1.15	1.14
Processed food	10.6	12.8	10.3	1.33	1.46	1.22
(Purchased)	(25.7)	(45.1)	(34.1)	(0.89)	(1.40)	(1.17)
Manufactures	14.9	10.8	13.7	1.10	0.86	1.00
Cottage industry	9.4	6.7	9.2	1.27	0.95	1.10
Other industry	5.5	4.1	4.5	0.90	0.74	0.84
Services	18.0	8.8	26.9	2.20	1.47	2.41
Housing	12.8	4.5	17.1	2.53	1.80	3.05
Education	2.1	2.3	3.6	2.56	3.30	1.84
Health	2.0	2.1	5.2	1.19	1.10	1.90
Transport	1.2	...	1.0	1.80	...	1.20
Total	100.0[a]	100.0[a]	100.0	1.00	1.00	1.00

Source: Estimated by fitting an Engel function on household data.
Note: N is the size of the sample.
[a] Parts do not add to total because of rounding.

more on housing and cottage industry products. For members the expenditure elasticity of demand is more than one for livestock and fisheries, processed agricultural products, and cottage industry products. Thus, with increases in income, the members themselves expand the market for goods and services financed by Grameen Bank loans.

It is noted that rural processing and manufacturing output has higher expenditure elasticity than have urban industrial products, and their share of the marginal budget is also higher. Further analysis at the disaggregate commodity level (not reported) shows that this is mainly due to very strong demand for wooden furniture and fixtures (carpentry), cane and bamboo products, and mats. For handloom products, the expenditure elasticity is found to be close to unity, while the output of potters and blacksmiths (household utensils) has very low expenditure elasticity.

BIBLIOGRAPHY

Adams, Dale W, and Graham, Douglas H. "A Critique of Traditional Agricultural Credit Projects and Policies." *Journal of Development Economics* 8 (June 1981): 347-366.

Adams, Dale W, and Vogel, Robert C. "Rural Financial Markets in Low-Income Countries: Recent Controversies and Lessons." *World Development* 14 (April 1986): 477-487.

Ahmad, Z. U. "Transaction Cost in Rural Financial Markets in Bangladesh: A Case Study of Rural Credit Markets." Ph.D. dissertation, University of Virginia, 1982 (mimeographed).

Ahmed, Momtaz U. "Financing Rural Industries in Bangladesh." *The Bangladesh Development Studies* 12 (March-June 1984): 59-79.

Ahmed, Raisuddin, and Hossain, Mahabub. "Infrastructure and Development of a Rural Economy." International Food Policy Research Institute, Washington, D.C., 1987 (mimeographed).

Alam, M. F. "Cost of Credit from Institutional Sources in Bangladesh." *The Bangladesh Journal of Agricultural Economics* 4 (December 1981): 51-61.

Antholt, Charles H., and Wennergren, E. B. "Agricultural Credit Reform in Bangladesh: Lessons Learned from a Pilot Project." *The Bangladesh Journal of Agricultural Economics* 8 (June 1985): 35-44.

Asaduzzaman, M., and Hossain, M. *Some Aspects of Agricultural Credit in Two Irrigated Areas in Bangladesh.* Research Report New Series 18. Dhaka: Bangladesh Institute of Development Studies, 1974.

Baker, C. B. "Credit in the Production Organization of the Firm." *The American Journal of Agricultural Economics* 50 (August 1968): 507-520.

______. "Role of Credit in the Economic Development of Small Farm Agriculture." In *Small Farmer Credit: Analytical Papers,* vol. 19, SR 119, pp. 41-70. Washington, D.C.: U.S. Agency for International Development, 1973.

Baker, C. B., and Hopkin, J. A. "Concepts of Finance Capital for a Capital-Using Agriculture." *The American Journal of Agricultural Economics* 51 (December 1969): 1055-1064.

Bangladesh, Bureau of Statistics. *The Bangladesh Census of Agriculture and Livestock: 1983-84,* vol. 1. Dhaka: Government Press, 1986.

______. *Final Report: Labor Force Survey, 1983-84.* Dhaka: Government Press, 1986.

______. *Final Report of Bangladesh Population Census, 1981: Analytical Findings and National Tables.* Dhaka: Government Press, 1984.

______. *Master Survey of Agriculture (Second Round).* Dhaka: Government Press, 1964.

______. *Monthly Economic Situation in Bangladesh.* Dhaka: Government Press, December 1985.

______. *1986 Statistical Yearbook of Bangladesh.* Dhaka: Government Press, 1986.

______. *Report of the Bangladesh Household Expenditure Survey, 1981-82.* Dhaka: Ministry of Planning, 1986.

______. *Statistical Pocket Book of Bangladesh, 1985.* Dhaka: Government Press, 1985.

Bangladesh, Planning Commission. "Intermodal Transport Study: Final Report." Quoted in *The Third Five-Year Plan, 1985-90.* Dhaka: Government Press, 1985.

Bangladesh Institute of Development Studies. *Rural Industries Study Project—Final Report.* Dhaka: BIDS, 1981.

Bangladesh Institute of Development Studies/International Food Policy Research Institute. *Development Impact of the Food for Work Program in Bangladesh.* A report prepared for the World Food Programme. Washington D.C.: BIDS/IFPRI, 1985.

Bangladesh/International Development Association. *Bangladesh Agricultural Credit Review.* Dhaka: Government of Bangladesh/IDA, 1983.

Bardhan, P. K., and Rudra, A. "Interlinkage of Land, Labor and Credit Relations: An Analysis of Village Survey Data in East India." *Economic and Political Weekly* 13 (February 1978): 367-384.

Bashar, M. A.; Elahi, M. Q. I.; and Alam, F. *An Investigation into the Tk 100 Crore Special Agricultural Credit Programme in Some Selected Areas in Mymensingh District.* Research Report 5. Mymensingh: Bureau of Socioeconomic Research and Training, Bangladesh Agricultural University, 1981.

Bhaduri, A. "On the Formation of Usurious Rates of Interest in Backward Agriculture." *Cambridge Journal of Economics* 1 (No. 3, 1977): 341-352.

Bottomley, Anthony. "The Cost of Administering Private Loans in Underdeveloped Rural Areas." *Oxford Economic Papers* 15 (No. 2, 1968): 275-288.

______. "Interest Rate Determination in Underdeveloped Rural Areas." *American Journal of Agricultural Economics* 57 (May 1975): 279-291.

______. "Monopoly Profits as a Determinant of Interest Rates in Underdeveloped Rural Areas." *Oxford Economic Papers* 16 (November 1964): 431-437.

______. "The Premium for Risk as a Determinant of Interest Rates in Underdeveloped Rural Areas." *The Quarterly Journal of Economics* 77 (No. 4, 1963): 637-647.

Braverman, Avishay, and Guasch, J. Luis. "Rural Credit Markets and Institutions in Developing Countries: Lessons of Policy Analysis from Practice and Modern Theory." *World Development* 14 (No. 10/11, 1986): 1253-1267.

Chowdhury, Omar H., and Hossain, Mahabub. "Roads and Development: A Case Study of Return on Investment in Rural Roads in Bangladesh." Dhaka, Bangladesh Unnayan Parishad, 1985 (mimeographed).

David, Cristina C., and Meyer, Richard L. "Measuring the Farm Level Impact of Agricultural Loans." In *Rural Financial Markets in Developing Countries,* pp. 84-95. Edited by J. D. Von Pischke, Dale W Adams, and Gordon Donald. Baltimore and London: Johns Hopkins University Press, 1983.

Fugelsang, Andreas, and Chandler, Dale. *Participation As Process—What We Can Learn from Grameen Bank, Bangladesh.* Oslo: Norwegian Ministry of International Development, 1987.

Ghai, Dharam. *An Evaluation of the Impact of the Grameen Bank Project.* Dhaka: Grameen Bank, 1984.

Ghatak, S. "Rural Interest Rates in the Indian Economy." *Journal of Development Studies* 11 (April 1975): 190-201.

Grameen Bank. "Annual Progress Report: 1986." Grameen Bank, Dhaka, May 1987 (mimeographed).

______. *Annual Report,* various issues. Dhaka: Grameen Bank, various years.

______. *Consolidated Cumulative Statement as of December 31, 1986.* Dhaka: Grameen Bank, 1987.

______. *Consolidated Cumulative Statement as of February 28, 1987.* Dhaka: Grameen Bank, 1987.

Hossain, Mahabub. "Agricultural Growth Linkages—The Bangladesh Case." *The Bangladesh Development Studies* 15 (March 1987): 1-30.

______. *Credit for the Rural Poor: The Grameen Bank in Bangladesh.* Research Monograph 4. Dhaka: Bangladesh Institute of Development Studies, 1984.

______. "Employment and Labour in Bangladesh Rural Industries." *The Bangladesh Development Studies* 12 (March-June 1984): 1-24.

______. "Institutional Credit for Rural Development: An Overview of the Bangladesh Case." *The Bangladesh Journal of Agricultural Economics* 8 (June 1985): 1-16.

______. *Nature and Impact of Modern Rice Technology in Bangladesh.* Research Report 68. Washington, D.C.: International Food Policy Research Institute, forthcoming.

______. "A Note on the Trend of Landlessness in Bangladesh." *The Bangladesh Development Studies* 14 (June 1986): 93-100.

______. "Productivity and Profitability in Bangladesh Rural Industries." *The Bangladesh Development Studies* 12 (March-June 1984): 127-161.

Hossain, Mosharaf; Rashid, A.; and Jahan, S. *Rural Poverty in Bangladesh: A Report to the Like-Minded Group.* Dhaka: Universities Research Center, 1986.

International Fertilizer Development Center. *Agricultural Production, Fertilizer Use and Equity Considerations: Results and Analysis of Farm Survey Data; 1980-82, Bangladesh.* Muscle Shoals, Ala.: IFDC, 1984.

Islam, I., and Khan, H. "Income Inequality, Poverty and Socio-Economic Development in Bangladesh." *The Bangladesh Development Studies* 14 (June 1986): 75-92.

Jones, Steve. "An Evaluation of Rural Development Programs in Bangladesh." *The Journal of Social Studies* (December 1979): 51-92.

Khan, A. R. "Poverty and Inequality in Rural Bangladesh." In *Poverty and Landlessness in Rural Asia,* pp. 137-160. Edited by International Labour Organisation. Geneva: ILO, 1977.

Long, Millard. "Interest Rates and the Structure of Agricultural Credit Markets." *Oxford Economic Papers* 20 (July 1968): 275-288.

______. "Why Peasant Farmers Borrow." *American Journal of Agricultural Economics* 50 (November 1968): 991-1008.

McKinnon, R. I. *Money and Capital in Economic Development.* Washington, D.C.: Brookings Institution, 1973.

Mellor, John W. "Agriculture on the Road to Industrialization." In *Development Strategies Reconsidered,* pp. 67-89. Edited by John P. Lewis and Valeriana Kallab. New Brunswick, N.J.: Transaction Books, 1986.

______. *The New Economics of Growth.* Ithaca, N.Y.: Cornell University Press, 1976.

Mellor, John W., and Lele, Uma. "Growth Linkages of the New Foodgrain Production Technologies." *Indian Journal of Agricultural Economics* 28 (January-March 1973): 35-55.

Meyer, Richard L. "Financing Rural Nonfarm Enterprises in Low-Income Countries." In *Rural Financial Markets in Developing Countries,* pp. 110-116. Edited by J. D. Von Pischke, Dale W Adams, and Gordon Donald. Baltimore and London: Johns Hopkins University Press, 1983.

Muqtada, M. "Determinants and Possibilities of Employment Expansion in the Crop Sector." In *Bangladesh: Selected Issues in Employment and Development,* pp. 61-88. Edited by R. Islam and M. Muqtada. New Delhi: International Labour Organisation, Asian Employment Program, 1986.

______. "Poverty and Inequality: Trends and Causes." In *Bangladesh: Selected Issues in Employment and Development,* pp. 41-60. Edited by R. Islam and M. Muqtada. New Delhi: International Labour Organisation, Asian Employment Program, 1986.

Nesbit, C. "Interest Rates and the Imperfect Competition in the Informal Credit Markets of Rural Chile." *Economic Development and Cultural Change* 16 (No. 1, 1967): 73-90.

______. "The Relationship Between Institutional and Informal Credit Markets in Rural Chile." *Land Economics* 45 (May 1969): 162-173.

Osmani, S. R., and Deb, N. C. "Demand for Products of Rural Industries." In *Bangladesh: Selected Issues in Employment and Development,* pp. 151-167. Edited by R. Islam and M. Muqtada. New Delhi: International Labour Organisation, Asian Employment Program, 1986.

Quasem, M. A., and Hossain, M. "Impact of Agricultural Policies and Programmes on Small Farmers in Bangladesh." Report prepared for the Food and Agriculture Organization of the United Nations, Rome, 1985 (mimeographed).

Rahim, A. M. A. "Agricultural Credit Institutions and Policies in Bangladesh." *The Bangladesh Journal of Agricultural Economics* 8 (June 1985): 17-34.

Rahman, Atiq. "Usury Capital and Credit Relations in Bangladesh Agriculture: Some Implications for Capital Formation and Capitalistic Growth." *The Bangladesh Development Studies* 12 (No. 2, 1979): 1-46.

Rahman, Atiur. *Impact of Grameen Bank Intervention on Rural Power Structure.* Grameen Bank Evaluation Project Working Paper 2. Dhaka: Bangladesh Institute of Development Studies, 1986.

Rahman, Rushidan Islam. *Impact of Grameen Bank on the Situation of Poor Rural Women.* Grameen Bank Evaluation Project Working Paper 1. Dhaka: Bangladesh Institute of Development Studies, 1986.

______. *The Wage Employment Market for Rural Women in Bangladesh.* Research Monograph 6. Dhaka: Bangladesh Institute of Development Studies, 1986.

Siddiqui, Kamal. *An Evaluation of the Grameen Bank Operation.* Dhaka: National Institute of Local Government, 1984.

U.S. Agency for International Development. *Small Farmer Credit: Analytical Papers,* vol. 19. Washington, D.C.: Department of State, 1973.

Von Pischke, J. D., and Adams, Dale W. "Fungibility and the Design and Evaluation of Agricultural Credit Projects." In *Rural Financial Markets in Developing Countries,* pp. 74-83. Edited by J. D. Von Pischke, Dale W Adams, and Gordon Donald. Baltimore and London: Johns Hopkins University Press, 1983.

Von Pischke, J. D.; Adams, Dale W; and Donald, Gordon, eds. *Rural Financial Markets in Developing Countries.* Baltimore and London: Johns Hopkins University Press, 1983.

Wharton, C. "Marketing, Merchandising and Moneylending: A Note on Middlemen Monopsony in Malaya." *Malayan Economic Review* 7 (October 1962): 24-44.

Yunus, Muhammad. "Experiences in Organising Grass Root Initiatives and Mobilising People's Participation: The Case of Grameen Bank Project in Bangladesh." Paper presented at the 25th World Conference of the Society for International Development, Baltimore, Md., 1982. Grameen Bank, Dhaka, 1982 (mimeographed).

______. *The First Decade of Grameen Bank,* 1976-86 (in Bengali). Dhaka: Grameen Bank, 1987.

______. "The Grameen Bank, As I See It." International Labour Organisation, Geneva, 1986 (mimeographed).

______. *Grameen Bank Project in Bangladesh: A Poverty Focussed Rural Development Program.* Dhaka: Grameen Bank, 1982.

RECENT IFPRI RESEARCH REPORTS (continued)

46 *THE EFFECTS ON INCOME DISTRIBUTION AND NUTRITION OF ALTERNATIVE RICE PRICE POLICIES IN THAILAND,* November 1984, by Prasarn Trairatvorakul

45 *THE EFFECTS OF THE EGYPTIAN FOOD RATION AND SUBSIDY SYSTEM ON INCOME DISTRIBUTION AND CONSUMPTION,* July 1984, by Harold Alderman and Joachim von Braun

44 *CONSTRAINTS ON KENYA'S FOOD AND BEVERAGE EXPORTS,* April 1984, by Michael Schluter

43 *CLOSING THE CEREALS GAP WITH TRADE AND FOOD AID,* January 1984, by Barbara Huddleston

42 *THE EFFECTS OF FOOD PRICE AND SUBSIDY POLICIES ON EGYPTIAN AGRICULTURE,* November 1983, by Joachim von Braun and Hartwig de Haen

41 *RURAL GROWTH LINKAGES: HOUSEHOLD EXPENDITURE PATTERNS IN MALAYSIA AND NIGERIA,* September 1983, by Peter B. R. Hazell and Ailsa Röell

40 *FOOD SUBSIDIES IN EGYPT: THEIR IMPACT ON FOREIGN EXCHANGE AND TRADE,* August 1983, by Grant M. Scobie

39 *THE WORLD RICE MARKET: STRUCTURE, CONDUCT, AND PERFORMANCE,* June 1983, by Ammar Siamwalla and Stephen Haykin

38 *POLICY MODELING OF A DUAL GRAIN MARKET: THE CASE OF WHEAT IN INDIA,* May 1983, by Raj Krishna and Ajay Chhibber

37 *SERVICE PROVISION AND RURAL DEVELOPMENT IN INDIA: A STUDY OF MIRYALGUDA TALUKA,* February 1983, by Sudhir Wanmali

36 *AGRICULTURE AND ECONOMIC GROWTH IN AN OPEN ECONOMY: THE CASE OF ARGENTINA,* December 1982, by Domingo Cavallo and Yair Mundlak

35 *POLICY OPTIONS FOR THE GRAIN ECONOMY OF THE EUROPEAN COMMUNITY: IMPLICATIONS FOR DEVELOPING COUNTRIES,* November 1982, by Ulrich Koester

34 *EGYPT'S FOOD SUBSIDY AND RATIONING SYSTEM: A DESCRIPTION,* October 1982, by Harold Alderman, Joachim von Braun, and Sakr Ahmed Sakr

33 *AGRICULTURAL GROWTH AND INDUSTRIAL PERFORMANCE IN INDIA,* October 1982, by C. Rangarajan

32 *FOOD CONSUMPTION PARAMETERS FOR BRAZIL AND THEIR APPLICATION TO FOOD POLICY,* September 1982, by Cheryl Williamson Gray

31 *SUSTAINING RAPID GROWTH IN INDIA'S FERTILIZER CONSUMPTION: A PERSPECTIVE BASED ON COMPOSITION OF USE,* August 1982, by Gunvant M. Desai

30 *INSTABILITY IN INDIAN FOODGRAIN PRODUCTION,* May 1982, by Peter B. R. Hazell

29 *GOVERNMENT POLICY AND FOOD IMPORTS: THE CASE OF WHEAT IN EGYPT,* December 1981, by Grant M. Scobie

28 *GROWTH AND EQUITY: POLICIES AND IMPLEMENTATION IN INDIAN AGRICULTURE,* November 1981, by J. S. Sarma

27 *AGRICULTURAL PRICE POLICIES UNDER COMPLEX SOCIOECONOMIC AND NATURAL CONSTRAINTS: THE CASE OF BANGLADESH,* October 1981, by Raisuddin Ahmed

Mahabub Hossain is a senior research economist at the Bangladesh Institute of Development Studies. He was a visiting research fellow at IFPRI from 1985 to 1987.

RECENT IFPRI RESEARCH REPORTS

64 *COOPERATIVE DAIRY DEVELOPMENT IN KARNATAKA, INDIA: AN ASSESSMENT,* December 1987, by Harold Alderman

63 *INCOME AND NUTRITIONAL EFFECTS OF THE COMMERCIALIZATION OF AGRICULTURE IN SOUTHWESTERN KENYA,* November 1987, by Eileen T. Kennedy and Bruce Cogill

62 *AGRICULTURAL RESEARCH IN NEPAL: RESOURCE ALLOCATION, STRUCTURE, AND INCENTIVES,* September 1987, by Ram P. Yadav

61 *THE PILOT FOOD PRICE SUBSIDY SCHEME IN THE PHILIPPINES: ITS IMPACT ON INCOME, FOOD CONSUMPTION, AND NUTRITIONAL STATUS,* August 1987, by Marito Garcia and Per Pinstrup-Andersen

60 *POPULATION POLICY AND INDIVIDUAL CHOICE: A THEORETICAL INVESTIGATION,* June 1987, by Marc Nerlove, Assaf Razin, and Efraim Sadka

59 *PRODUCTION INCENTIVES IN PHILIPPINE AGRICULTURE: EFFECTS OF TRADE AND EXCHANGE RATE POLICIES,* May 1987, by Romeo M. Bautista

58 *THE FOOD STAMP SCHEME IN SRI LANKA: COSTS, BENEFITS, AND OPTIONS FOR MODIFICATION,* March 1987, by Neville Edirisinghe

57 *CEREAL FEED USE IN THE THIRD WORLD: PAST TRENDS AND PROJECTIONS TO 2000,* December 1986, by J. S. Sarma

56 *THE EFFECTS OF TRADE AND EXCHANGE RATE POLICIES ON AGRICULTURE IN ZAIRE,* November 1986, by Tshikala B. Tshibaka

55 *THE EFFECTS OF TRADE AND EXCHANGE RATE POLICIES ON AGRICULTURE IN NIGERIA,* October 1986, by T. Ademola Oyejide

54 *WEATHER AND GRAIN YIELDS IN THE SOVIET UNION,* September 1986, by Padma Desai

53 *REGIONAL COOPERATION TO IMPROVE FOOD SECURITY IN SOUTHERN AND EASTERN AFRICAN COUNTRIES,* July 1986, by Ulrich Koester

52 *FOOD IN THE THIRD WORLD: PAST TRENDS AND PROJECTIONS TO 2000,* June 1986, by Leonardo A. Paulino

51 *DETERMINANTS OF AGRICULTURAL POLICIES IN THE UNITED STATES AND THE EUROPEAN COMMUNITY,* November 1985, by Michel Petit

50 *GOVERNMENT EXPENDITURES ON AGRICULTURE AND AGRICULTURAL GROWTH IN LATIN AMERICA,* October 1985, by Victor J. Elías

49 *LIVESTOCK PRODUCTS IN THE THIRD WORLD: PAST TRENDS AND PROJECTIONS TO 1990 AND 2000,* April 1985, by J. S. Sarma and Patrick Yeung

48 *RURAL HOUSEHOLD USE OF SERVICES: A STUDY OF MIRYALGUDA TALUKA, INDIA,* March 1985, by Sudhir Wanmali

47 *EVOLVING FOOD GAPS IN THE MIDDLE EAST/NORTH AFRICA: PROSPECTS AND POLICY IMPLICATIONS,* December 1984, by Nabil Khaldi

(continued on inside back cover)

International Food Policy Research Institute
1776 Massachusetts Avenue, N.W.
Washington, D.C. 20036 USA