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IFPRI

#### RESEARCH PROGRAM MISSION

The research program titled Rural Financial Policies for Food Security of the Poor seeks to identify policies and institutional arrangements that help the poor integrate themselves into sustainable savings and credit systems in order to increase capacity to invest, bear risk, and preserve livelihoods.

#### FOCUS COUNTRIES

- Bangladesh
- Cameroon
- China
- Egypt
- Ghana
- Madagascar
- Malawi
- Nepal
- Pakistan

#### ABOUT THE AUTHORS

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# RURAL FINANCIAL POLICIES for FOOD SECURITY of the POOR

POLICY BRIEF No. 9 • JULY 2000

## Factors Affecting Repayment Rates in Group-Based Lending: Findings From Bangladesh and Madagascar

MANOHAR SHARMA AND MANFRED ZELLER

Lending is a risky enterprise because repayment of loans can seldom be fully guaranteed. The failure of a large number of state-sponsored agricultural development banks in many developing countries was due, among other things, to their inability to ensure good repayment rates among their borrowers. In the context of providing credit to the rural asset-poor, what is being increasingly called for is institutional innovation that combines prudent banking principles with effective screening and monitoring strategies that are not based on physical collateral (such as land). One important innovation has been the formation of borrower groups and the use of group responsibility and peer monitoring as the core principles guiding financial transactions. The success story of Bangladesh's Grameen Bank's using small groups of borrowers in servicing the poor and achieving high rates of repayment is now well known. So are the experiences of SANSA in Sri Lanka and Credit Solidaire in Burkina Faso. In Thailand, the Bank for Agriculture and Agricultural Cooperatives achieved high repayment rates even though it sometimes uses groups consisting of as many as 30 members. However, repayment rates are not uniformly high for all institutions or across groups within an institution. In Nepal, the repayment performance of groups formed under the Small Farmers Development Program (SFDP) exhibits a very mixed result. Examples from other countries show how repayment rates of groups can fluctuate according to changing external circumstances.

What important factors affect group repayment rates within these new financial institutions? What are factors that managers of microfinance should consider when initiating group formation? These are important issues for emerging microfinance institutions since even small amounts of loan losses can weaken a microfinance institution very quickly. IFPRI studies in Bangladesh and Madagascar address these issues. The results of these studies are summarized below.

### Factors Affecting Repayment Rates

**Group size matters.** The bigger the group, the more imperfect are flows of information likely to be between members, and repayment can falter because of poorer screening and monitoring.

**Loan amount.** Generally the bigger the loan amount, the more difficult it is to meet repayment obligations in the event of project failure. Hence, unwilling default is likely to increase.

**Group's portfolio diversity.** The greater the diversity of asset portfolio within group members, the less covariant the incomes within the group. This makes it easier for one member to bail out another member who is experiencing repayment difficulties.

**Level of credit rationing.** The higher the level of credit rationing imposed on the group, the higher level of the group's unfulfilled credit demand. If this generates a greater concern for protecting future borrowing privileges, groups can be expected to increase efforts to lower delinquency rates. However, if the degree of rationing is too high, it is likely to render the loan amount more and more trivial (in comparison to the needs of the groups), so that the lender may not be anymore considered as a preferred long-term partner. Hence, too much of rationing is likely to decrease incentives to adhere to the contracted repayment schedule.

**Social interrelatedness within groups.** Since information flows are expected to be better within socially connected groups made up of friends and relatives, there would be less moral hazard associated with bailing out a relative who is unable to meet the repayment requirements. However, cultural factors may turn important as when it becomes socially difficult to impose sanctions on relatives, and in this way dilute the enforcement process. For precisely this reason, to also prevent possible collusion, some credit programs have rules against groups consisting of close relatives.

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**Demographic composition of group.** Frequently, households with a greater number of nonworking children and other dependents are perceived to be less creditworthy. Results indicate that this is not so: repayment rates in Bangladesh are better among groups made of households with more dependents. Indeed, it is likely that such households are more risk averse since the consequence of adverse shocks is likely to be more serious as it affects children and elders who are more vulnerable. Such risk-averse households would seek to avoid reduced borrowing privileges, or reduced access to special emergency funds in the future. Hence, they make special efforts to fulfill repayment obligations.

**Gender composition of groups.** Findings in Bangladesh show that repayment rates are higher for groups that have a higher percentage of women. Two factors may be at work. First, given that women have very limited experience in the market economy to begin with, they are extremely cautious in their business ventures and are likely to choose projects that are relatively less risky. Second, the cost of project failure is likely to be higher for females than for males, given pervasive gender inequities: project failure may lead to reprimand and significant negative sanctions against the woman within the household, and she takes account of this eventuality in her decisionmaking. Hence, women are not only likely to select less risky projects, they are also more careful about fulfilling repayment obligations.

**Group formation.** It is likely that screening and monitoring are more effective within groups that form on their own than within those groups that depend on the intervention of an outside agent. This leads to better repayment rates, except in cases when individuals collude to form groups with the express intent to default.

**Community characteristics.** The less remote and more buoyant the local economy, the better the market opportunities are for profitable enterprise. Hence repayment rates are better in such communities. However, IFPRI research indicates that this is not always so: in Bangladesh, remote communities had better repayment rates. The more remote the village, the greater the value placed on institutional credit services since other alternatives are less available (e.g., loans from traders, employers); delinquency rates therefore are low to avoid a loss of future borrowing privileges from this important, and sometimes only, source.

## Conclusions

Overall, results indicate that once the right institutional structures are in place, there need not be a major conflict between prudent financial management and lending to the asset poor. Repayment rates can be good even in relatively remote communities with higher than average rates of poverty. The secret seems to lie not just in innovations that reduce the cost of screening, monitoring, and enforcing loan contracts, but also in the successful demonstration to transactors in small rural communities that these innovations and

institutions are not transitory phenomena, that they address their financial concerns, and that it is worthwhile for them to invest in a profitable long-term association. In fact, it is precisely this type of realization among borrowers that has contributed to the building up of a critical mass of social capital that supports successful group-based institutions. Without this critical mass, joint liability would quickly flounder. Understanding the financial concerns of the poor is therefore indispensable; after all, there is little incentive for borrowers to build a lasting relationship with institutions that do not address their economic demand.

It is suggested that the process of group formation be made more endogenous to members themselves and less subject to external rules. IFPRI research indicates that factors such as asset and enterprise diversity within groups significantly affect repayment rates. A good mix of income activities, including agricultural production activities, is thus a desirable group characteristic. In general, potential members are in a better position to screen and select the best partners for group formation, giving due consideration to factors such as potential risk-pooling benefits by co-selecting members whose anticipated income and consumption shocks are negatively correlated.

Finally, the experience of group lending shows that the basic principles of prudential banking have to be adhered to at all times. Delivering finance to the poor should not be taken to mean that loan evaluation or rationing should be entirely dispensed. On the contrary, loan size has to take into consideration investment capacities and the risk-bearing abilities of the rural poor. In fact, our analysis indicated that delinquency rates do appear to increase with loan size. Hence, objective and realistic project evaluation is necessary prior to loan approval. In case graduated lending is considered, increases in credit lines should be granted only after a careful scrutiny of project risks and conditional upon satisfactory previous repayment performance. However, it is important to ensure that this evaluation of loan applications not be based on traditional forms of bias against gender, age or families with many children. As the results of our analysis indicate, these biases, however deep-rooted, are totally misplaced. ■

## Selected References

- Sharma, M., and M. Zeller. 1997. Repayment performance in group-based credit programs in Bangladesh: An empirical analysis. *World Development* 25 (10).
- Zeller, M. 1998. Determinants of repayment performance in credit groups: The role of program design, intragroup risk pooling, and social cohesion. *Economic Development and Cultural Change* 46 (3): 599-620.

## ABOUT IFPRI

IFPRI's mission is to identify and analyze strategies for meeting food needs of the developing world, with particular emphasis on low-income countries and the poor.

IFPRI is a member of the Consultative Group on International Agricultural Research (CGIAR).

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