

Making Irrigators' Organizations Creditworthy

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Abstract: Lack of credit limits the effectiveness of irrigators' organizations. Microfinance programs have proved that the poor are creditworthy. This paper outlines how principles of successful microfinance programs might be used to make irrigators' organizations creditworthy.

Irrigators' organizations in Southeast Asia and most other areas lack access to credit. Experience makes clear that lack of financial capacity threatens the sustainability of irrigation management transfer and other programs to promote greater local self-reliance in irrigation management. Without access to financing, irrigators' organizations ability to pay for repairs and improvements is usually limited to the money, labor and other resources they can mobilize during a single season or year. Beyond this, they usually have little choice but to depend on top-down, supply-driven projects, and may remain trapped in a cycle of deferred maintenance and declining performance. Developing the capacity to finance major repairs and improvements offers a major opportunity for making irrigators' organizations more effective.

Microfinance programs have proved that poor people are creditworthy. Organizations such as Grameen Bank, Accion International and Bank Rakyat Indonesia have succeeded in profitably making small loans, with high levels of repayment. However many rural credit projects have failed, with loans inefficiently and inequitably distributed, and not repaid.² Principles for developing effective financial services should be ap-

plied to making irrigators' organizations creditworthy.

Credit programs should include savings. Regularly collecting funds, such as irrigation fees, and depositing them in a bank account creates a relationship with a financial institution. It builds experience with transparent and accountable management of money. And it demonstrates the financial capacity to repay loans.³

Small loans build financial capacity. Borrowers can gain experience and lenders have a chance to see loans repaid, before extending further loans. Small loans, repaid over a few years, would be less risky and easier to manage for both borrower and lender, compared to very long-term loans.⁴ Most financial institutions are familiar with lending for a period of a few years. Successful repayment justifies further loans.

Incremental rehabilitation. Most repairs and improvements in existing irrigation schemes could be constructed separately, through a process of incremental repair and improvement.⁵ Leaky canals and broken structures are mostly problems which appear gradually, bit by bit. Even headworks rarely fail totally, but instead develop problems of various sizes and technical complexity. The current approach to periodic irrigation rehabilitation has more to do with the convenience of irrigation agencies and donor organizations than with the underlying character of maintenance needs. Adding lining, improving control structures and other forms of upgrading could be done using a process of continuing incremental improvement. Incremental decisions could focus on

Principles for making irrigators' organizations creditworthy:

- Combine savings activities with borrowing
- Start with small loans to build financial capacity
- Rely on borrowers' desire to maintain a good reputation and eligibility for future loans as the main incentives for repayment
- Utilize local knowledge and social solidarity
- Take a commercial approach to lending.

questions such as which sections of canal are in most urgent need of repair, would bring the most benefits, or are most necessary to avert larger problems later on. Using an incremental approach to irrigation repairs and improvement would make it possible to apply the principle of building financial capacity through a series of loans.⁶

Collateral is not a necessity.

The first objection often made to idea of credit for irrigators' organizations is that they lack collateral. One solution is to use farmers' irrigated land as collateral.⁷ However one of the key innovations in microfinance has been learning how to lend without relying on collateral, and it is worth exploring the implications of such approaches for financing irrigation.

Creditworthiness comes from a lender's confidence in the borrower's ability to repay from cash flow. Even when they have collateral, its main role is as a credible threat to enforce repayment. Creditors do not want to go through the hassles of foreclosure.

In most lending, including micro-finance, borrowers' desire to keep a good reputation and stay eligible for future loans provides the best incentive for repayment. If lending for irrigation is arranged through a series of loans, then this same incentive can apply.

Group credit is feasible. Local knowledge and social controls facilitate good investments and repayment. Working with groups allows lending more money, with lower transactions costs. Typically, group lending has involved small face-to-face groups. Similar approaches might build on the social relationships which link larger groups of farmers within irrigation

schemes. Irrigators' organizations might finance other enterprises, such as aquaculture. They might also provide a convenient channel for lenders to deal with farmers seeking credit.

Commercial lending is more sustainable. Financial institutions which risk their own funds lend more carefully and work harder to ensure repayment. They are less susceptible to political interference and can support a demand-driven process of development. One of the most important lessons of experience has been that real, unsubsidized interest rates are essential for sustainability. Programs with savings services, real interest rates,

and repayment can self-finance growth. These principles imply that credit should come through financial institutions, which have credit for irrigation infrastructure as part of a broader portfolio.⁸

Conclusions. Governments should work with banks and other financial institutions to enable irrigators' organizations to access credit. Approaches will need to be customized to local circumstances. Microfinance principles provide guidance on how to sustainably improve the financial capacity and effectiveness of irrigators' organizations..

¹ Presented at a brown bag seminar of the World Bank Water Resources Thematic Group, October 21, 1999. An earlier version was presented at a workshop on "Government Actions Towards Effective Irrigators' Organizations," sponsored by the German Foundation for International Agricultural Development (DSE), the Laotian Ministry of Agriculture and Forestry, and the Vietnamese Ministry of Agriculture and Rural Development, 1 – 6 March, 1999, Vientiane, Lao PDR. Views expressed in this paper are the responsibility of the author, and do not represent any organization with which he is or has been associated. Comments are invited to:

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In learning about principles of micro-finance and how they might apply to irrigation, I have benefited from many conversations with Robert Christen, and also discussion with Robert Varley, but retain responsibility for errors.

² Critiques of rural finance programs are presented in Dale W. Adams, Douglas H. Graham, and J. D. Von Pischke. *Undermining Rural Development with Cheap Credit*. Boulder, CO: Westview Press. 1984. For a recent overview of microfinance principles, see the Introduction in Robert

Christen, *Banking Services for the Poor: Managing for Financial Success*. Washington, D.C.: Accion International. 1997 (www.accion.org). For further sources on microfinance see: www.soc.titech.ac.jp/icm/ and www.enterweb.org/microcre.htm/

³ When an irrigators' organization puts money into a capital reserve fund, problems requiring major repairs may not wait until enough money has been saved. However, accumulating a capital reserve fund would clearly demonstrate ability to repay loans, and so strengthen creditworthiness.

⁴ This contrasts with long-term loans used for farmer financing of irrigation in the Philippines and elsewhere. For a review of irrigation financing mediated by public sector agencies see Leslie E. Small and Ian Carruthers *Farmer-financed Irrigation: The Economics of Reform*. Cambridge: Cambridge University Press. 1991.

⁵ Concepts concerning the separability of most irrigation infrastructure repairs and improvement works were presented in *Incremental Rehabilitation: Restructuring Incentives for Irrigation Maintenance*, at the International Seminar on Participatory Irrigation Management July 14-19, 1998, Bali, Indonesia. Some ideas

about the linkage between incremental rehabilitation and credit were developed while working as a consultant for the World Bank and presented in *Irrigation Reformation in Indonesia: A Concept Paper*.

⁶ Changing from a single interaction to multiple interaction is a key to solving "prisoner's dilemma" type problems where the parties would have a strong incentive to defect from an agreement if they only interact once. For a discussion see Robert Axelrod. 1984. *The Evolution of Cooperation*. New York: Basic Books..

Frequency of transactions is a key determinant of the feasibility of creating effective agreements in the new institutional economics framework in Oliver E. Williamson. 1996. *The Mechanisms of Governance*. New York: Oxford University Press.

⁷ If irrigators' associations hold tradable water rights then these might also be used as collateral.

⁸ A commercial approach to lending does not rule out government subsidies, such as matching funds or partial loan guarantees, as long as they reduce moral hazard by maintaining strong incentives for borrowers and lenders to choose good investments and ensure repayment.