

Executive summary

Background

1. In line with the decision of the IFAD Executive Board, in 2016/2017 the Independent Office of Evaluation of IFAD (IOE) carried out an impact evaluation of the IFAD-supported Agricultural Support Project (ASP) in Georgia. The overall rationale and terms of reference for this impact evaluation are set out in the associated approach paper.¹

The project

2. The overall goal of the project was to increase incomes among rural people engaged in agricultural activities in Georgia. The project's objectives were: (i) to increase assets and incomes among actually and potentially economically active poor rural women and men willing to move towards commercially viable agricultural and associated rural enterprises; and (ii) to remove infrastructure bottlenecks that inhibit increasing the participation of economically active rural poor in enhanced commercialization of the rural economy (EB 2009/98/R.41/Rev.1, para. 14).
3. **Target group.** Geographically, the project targeted regions with high incidences of poor rural people, combined with areas with high productive potential in agriculture. The target group was composed of agriculture-related producers and processors and rural women and men willing to move towards more commercial production. The rural leasing activities were aimed at commercially-oriented and economically active poor people. Infrastructure rehabilitation was targeted at smallholders with less than one hectare of land. The project had no direct approach to targeting women, but specified a minimum target of 30 per cent women in all categories of project investments.
4. **Project components.** The project had three components: (i) support for rural leasing; (ii) small-scale rural infrastructure (SSRI), consisting of one drinking water system and the rehabilitation of two bridges and six irrigation schemes; and (iii) support to project management and implementation. The first component supported recapitalization of poor smallholders and small and medium-sized agroenterprises. The second component dealt with investments in public infrastructure to enhance the rural population's on-farm and off-farm investments and business activities. The third component provided financial support for the project management unit for implementation activities.
5. **Implementation arrangements.** Under the initial financing agreement, the Agricultural Development Projects Coordination Centre (ADPCC) of the Ministry of Agriculture was expected to assume overall responsibility for day-to-day management of the ASP. However, in February 2011 the ADPCC was liquidated and responsibility for implementation of project activities passed to the Donor Projects Implementation and Monitoring Division within the External Relations Department of the Ministry of Agriculture. In order to ensure continuity, some ADPCC staff were contracted by the Ministry of Agriculture as consultants. The government agency in charge of irrigation – the Amelioration Company – was a partner in the operation and maintenance of the schemes rehabilitated by the project.

Evaluation objectives, methodology and process

6. **Objectives.** The overall goal of the impact evaluation was to assess whether the project was successful or not, and for what reasons, and in doing so to provide policy-relevant information for the design of future IFAD-supported projects. Its main objectives were: (i) to measure and in the process determine whether the interventions had a welfare effect on beneficiaries, and whether this effect could be

¹ See www.ifad.org/documents/10180/5c33014f-7f1e-47a6-aac5-f05fc26b2ede.

attributed to the interventions in question; (ii) to assess the innovative features of the project and provide the information needed to scale up successful project components; and (iii) to provide robust evidence and inputs for the Georgia country strategy and programme evaluation.

7. **Methodology.** The project was evaluated using the criteria provided in the second edition of the IOE Evaluation Manual (2015). These included the four impact domains under the rural poverty impact criterion: (i) household income and assets; (ii) human and social capital and empowerment; (iii) food security and agricultural productivity; and (iv) institutions and policies. In addition, the following criteria were used: relevance, effectiveness, efficiency, sustainability of benefits, gender equality and women's empowerment, innovation and scaling up, environment and natural resources management, adaptation to climate change, overall project achievement along with the performance of partners. The criteria were rated on a scale from 1 to 6, with 6 representing the best and 1 the worst score.
8. The intervention logic of the project (its theory of change) was the point of departure for this impact evaluation (see appendix - annex IV). The impact assessment used a quasi-experimental design in order to attribute the effects observed to the project's interventions. Identification of impact was achieved through a counterfactual – the use of a comparison group. Project effects were calculated principally by use of the difference-in-difference approach. Where it was not possible to use this approach, a single-order difference was calculated (difference between treatment and comparison group at end line only). The baseline values were recreated using recall questions since there were methodological issues with the baseline values collected by the project itself.
9. A mix of quantitative and qualitative tools was used. The core instrument was a household survey, used to collect primary quantitative data. Qualitative tools – such as focus group discussions, key informant interviews and in-depth interviews – provided an understanding of the causal mechanisms through which the project achieved its objectives or failed to do so. An effective sample size of 3,190 households was used to ensure sufficient statistical power.
10. Two approaches were used that were innovative in the context of impact evaluations carried out by IOE. The first was the matching of beneficiaries with comparison group observations, which was carried out using the genetic matching method, as opposed to propensity score matching, in order to obtain better matching. The second was that the use of geospatial analysis, with the Earth Observation methodology, with a focus on the impact of irrigation rehabilitation. The detailed methodology and a discussion of results and lessons learned are presented in appendix - annex VII.

Main evaluation findings

11. **Relevance.** The project's objectives were consistent with national policies, IFAD's strategies and the needs of the rural poor. Similarly, they were also fully compliant with IFAD's corporate Strategic Framework 2016-2025 and with the country strategic opportunities paper (2004).
12. The small-scale infrastructure component was relevant to the needs of the poor, with access to infrastructure considered a key issue faced for the overall development of the rural economy. At the time of project design, the country's irrigation system was in a state of disrepair, with no investments made and no maintenance operations conducted since 1991. Similarly, at the time of design, rural financial operations in the country were generally failing to reach poor rural people. The need for fresh rural financial incentives and greater outreach was to be met through financial leasing. However, the project subcomponents were a discrete set of activities with seemingly little – if any – synergy between them.

13. The project in general targeted those with the capacity to move towards commercialized agriculture. Thus the infrastructure rehabilitation intervention targeted smallholders with less than one hectare of land, as well as woman-headed households. However, it is unclear on what basis the 30 per cent target was set and how this was to be achieved, since no strategy was developed to mainstream gender in the project's targeting approach. The logical framework developed by the project unit lacked the necessary structure and content - no outcomes were listed and no targets were provided against which to monitor outputs and final outcomes. Overall, the impact evaluation rates relevance as moderately satisfactory (4).
14. **Effectiveness.** In terms of project outreach, the project completion report (PCR) reported the SSRI component as having reached a total of 15,790 rural households, out of which irrigation rehabilitation reached 14,450 households and a potential command area of 11,000 hectares. However, these are potential, not actual figures and are based on the assumption that all farms in the command area received irrigation water. In reality, in the 2015 season some 1,420 hectares (13 per cent of the potential command area) had been registered for water supply by the Amelioration Company. This area was brought under irrigated cultivation by approximately 3,390 households (24 per cent of expected beneficiaries). At appraisal, it was expected that approximately 470 direct and 14,200 indirect beneficiaries would be reached through the rural leasing component. At completion, only 15 enterprises had directly participated, together employing 1,152 persons, of which 612 represented an increase on the baseline. Of the estimated 2,645 beneficiaries of backward linkages, only 993 corresponded to an increase. In summary, overall outreach effectiveness was partial in the case of SSRI and fell short for rural leasing.
15. The first objective of the project was linked to the leasing component, which can be judged to have been effective in attracting new investments in rural enterprises. However, the scale was much lower than predicted, and these investments seem to have not created as many new linkages as envisaged, but rather strengthened existing ones. On the other hand, the project's aspiration of introducing rural leasing (group leasing) through microfinance institutions (MFIs) to stimulate investment activity by smallholders was not fulfilled. The project was unable to attract MFIs for several reasons, not least because financial leasing as a financial sector instrument is relatively unknown in Georgia. In addition, the legislation governing MFIs lacked clarity in terms of their role with respect to this instrument. Furthermore, MFIs were expected to pay value added tax (18 per cent) when purchasing equipment (to be refunded later by the Government), thus locking in their funds. Lastly, there were formidable sources of competing interventions, such as rental subsidies on farm equipment through government centres and through programmes of donor agencies that also provided subsidies for the purchase or lease of machinery. A proper business case analysis at project design would have brought these issues to the fore.
16. The two rehabilitated bridges improved access by animals to summer pastures, and the domestic water supply scheme brought piped water to beneficiaries' houses. For the irrigation subcomponent, at project completion less than 15 per cent of the total command area targeted by the project (para. 14) was being cultivated. Uptake of newly available irrigation was slow due to the state of disrepair of the on-farm irrigation schemes, among other reasons. This meant that not all intended beneficiaries would receive water, even if the primary schemes were rehabilitated. Additional factors impeding success were: a lack of access to financial services to fund cultivation and input costs for irrigated planting; an ageing rural population and lack of incentives for youth to return to sub-economic farm units; and migration and incomplete land registration, thereby constraining land consolidation. On the positive side, field visits confirmed improvement in production for some medium to large farms, and some farmers having switched to high-value-added

crops once the irrigation work was completed. However, since in the main the schemes were rehabilitated as late as 2015, it is not possible at this stage to measure the full extent and pace of the intervention. Given the overall performance in relation to the objectives, effectiveness is assessed as moderately unsatisfactory (3).

17. **Efficiency.** The economic and financial return from the project was overestimated in the PCR, given the lower numbers for outreach and the delayed materialization of the expected benefits of the infrastructure component. The economic analysis in the PCR reported an economic internal rate of return (EIRR) of 20 per cent, with a net present value of US\$164 million over a 20-year period. However, assessment of EIRR at project completion is unreliable, due to the absence of quality data on impacts and to unverified assumptions. Additionally, as stated earlier, given that the full irrigation command potential has not yet materialized, the anticipated accrual of benefits will be reduced and delayed. While it has not been possible to assess the impact that this will have on the EIRR, benefits will clearly be less than expected. In the case of the leasing component – which failed to reach certain target beneficiaries – the anticipated benefits have not materialized fully.
18. On the positive side, the cost of project management was just 6 per cent of total disbursements, which is lower than for comparable projects. An analysis of irrigation rehabilitation costs indicated that on average these were 1,980 Georgian lari (GEL) per hectare under the ASP. This is in line with the World Bank's estimated rehabilitation costs of GEL 2,150 per hectare. The period between loan signing and effectiveness was short. However, implementation was delayed by a year due to changes in project management within the Ministry of Agriculture, leading to staff reassignment and recruitment of new staff. Similarly, delays in completion of some irrigation schemes led to a need to extend the loan closing date by one year. Despite the extension, project funds were not fully disbursed, with the overall disbursement rate reaching some 76 per cent of funds committed at project appraisal. Overall efficiency is assessed as moderately unsatisfactory (3).
19. **Rural poverty impact.** The quantitative and qualitative methods deployed to assess the project's impact on rural poverty returned mixed results. They showed no statistically significant changes in agricultural incomes between target and comparison communities in relation to irrigation, bridge and drinking water interventions. However they did show increases in incomes for the farmers who benefited indirectly from the project's lease financing for agroenterprises.
20. Increases in incomes were expected for beneficiaries of the irrigation activities, through increased production and diversification. But a lack of adequate water supply in the main watering season, and the absence of on-farm irrigation (due to the project's main focus on primary and secondary canals) led to planting and production that were less than expected. Switching the crops to be produced, or diversifying the crops, might have led to increased incomes, but this was seen only marginally, if at all. There was an increase in calf numbers due to safer bridges (leading to lower animal mortality), but it was too marginal to have led to increases in incomes for the beneficiary livestock owners.
21. Statistical analysis suggests that the project did not have a significant impact on non-agricultural incomes, as was envisaged in the project logical framework. However, according to project monitoring and evaluation (M&E) data, some employment generation in agroprocessors occurred through leasing. Tests were done to assess whether beneficiary households in the lowest quartile of the income distribution at the start of the project were more likely to move out of poverty. The results showed that the poorest 25 per cent among indirect beneficiaries of the leasing component were likely to have improved their incomes. The same outcomes were observed in the case of physical assets: indirect beneficiaries of the leasing component had increased their assets, but the other beneficiaries had not.

22. The project had little effect on the food security situation of the beneficiaries. Dietary diversity and spending on food, which were used as indicators of food security, showed no statistically significant difference between the beneficiaries and the comparison group. The project showed no significant effect on crop productivity (changes in yields). Similarly, results suggest that in irrigation communities, no additional land was brought under cultivation by the beneficiary households. However, the average size of land under irrigation per household did increase by approximately 0.15 hectares. The geospatial analysis showed an improvement of just 1.24 per cent in vegetation development for treated as compared to control areas. In addition, diversifying from food crops (staples) to high-value-added crops to be grown primarily for markets would have been a sign of commercialization. In this regard, the amount of land dedicated to food crops and to high-value-added crops were tested, but the results showed no significant impact from project activities.
23. The ASP had limited goals in relation to human and social capital and empowerment. In terms of empowerment engendered through a participatory approach, the project consulted with some community members in the design of the project for the bridge intervention, and according to the project, also for the irrigation schemes, although the participants in focus group discussions indicated little if any awareness of consultations. The views of the beneficiaries interviewed were mixed as to whether the project helped reduce water-related conflicts related to drinking water. Some beneficiaries mentioned fewer conflicts, while others indicated no change as compared to before the project intervention. Although it was not an explicit goal of the project, the impact evaluation also checked whether the increase in an improved drinking water source had improved health outcomes. However, no change was observed in the incidence of waterborne diseases.
24. At the project design phase, three primary goals were set out for institutions and policies: (i) consolidation of the ADPCC of the Ministry of Agriculture in its role as the institutional focal point for agricultural development in Georgia; (ii) creation of a leasing sector to promote sustainable rural economic growth and poverty reduction; and (iii) formation of beneficiary groups/organizations. The first goal did not materialize, due to changes undertaken by the Government. The project was unsuccessful in achieving the impact that was meant to come about promoting a pro-poor orientation in private sector organizations, mainly through creation of the leasing sector. The third goal could have been achieved through formation or strengthening of water users' association. However, no increase was noted in membership in water users' associations, with only a few interview respondents reporting being members in 2016.
25. The impact evaluation concludes that the overall rural poverty impact of ASP is moderately unsatisfactory (3). While the project achieved positive outcomes through the leasing activity, no changes were observed for several important outcomes, or outcomes were less than desired. With regard to the irrigation schemes, which was the largest activity in terms of resources allocated, the unsatisfactory results were largely a reflection of late completion of the activity. In addition, the disparate nature of the project's interventions diluted the overall impact of the project.
26. **Sustainability of project benefits.** The infrastructure sustainability risks had been mitigated to some degree by the Amelioration Company and municipalities contributing 5 per cent of total infrastructure costs to a central fund, as an indication of their commitment to the works created under ASP. In that regard, the relevant municipalities had accepted responsibility for the care and maintenance of bridges and the water supply scheme, as had the Amelioration Company for care of the rehabilitated irrigation. The long-term sustainability of infrastructure will, however, depend to a large degree on a sense of common ownership, which has yet to be engendered. The sustained maintenance of irrigation schemes will also

depend on a fair and well organized distribution of water among users, and on efficient on-farm water management.

27. The Government, in collaboration with the World Bank, is introducing institutional reforms within the Amelioration Company to promote water users' participation, which would also improve the sustainability of completed ASP schemes. The success of this however remains to be seen. The sustainability of the leasing component is in a sense secure, as all funds invested were distributed to 15 existing and well-established medium-sized and large private enterprises. Their demand for labour and raw material supplies is also likely to grow, thus sustaining the modest backward linkages developed under ASP. On balance, sustainability is assessed as moderately satisfactory (4).

Other performance criteria

28. **Innovation.** The rural leasing proposal was the most innovative feature of the ASP, and a commendable idea. Carefully and flexibly managed leasing could have offered an option to foster greater inclusion of poorer clients – not least because it removed the collateral constraints of conventional credit. Unfortunately, insufficient business case analysis at the time of design of the MFI-related leasing product, culminated in failure of its implementation – although leasing to agroprocessors was more successful.
29. However, institutional innovations did not come about to promote participation by water users in irrigation scheme design and water management, and nor were measures introduced to improve recovery of water charges. There was virtually no discernible water user participation in the design or management of the scheme, nor a greater sense of system ownership among water users. This evaluation rates innovation as moderately unsatisfactory (3), taking into consideration that while the project's attempt to include innovation as part of its interventions is commendable, it did not work as planned.
30. **Scaling up.** Since only one leasing company and no MFIs were involved in ASP leasing activities, and since all beneficiary lessees were private agroenterprises, at this stage there are no prospects for significant scaling up of rural agricultural leasing. Interviews with TBC Leasing pointed to the likelihood of the company adding rural leasing to its product portfolio, although this cannot be confirmed as a certainty. Furthermore, current legal and regulatory frameworks and tax implications preclude the participation of MFIs – although reportedly some would be interested in adopting leasing instruments if these frameworks were suitably reformed. Since moves on the part of the Government to reform the leasing regulations – making them acceptable to MFIs – were not evident at the time of evaluation, there appears little potential to scale up this activity in Georgia.
31. In contrast, experience in the ASP with irrigation rehabilitation has benefited the design and development of the World Bank-financed Georgia Irrigation and Land Management Development project (GILMD) that was approved in 2015. Some of the institutional and management arrangements tested and implemented through the project's small-scale infrastructure implementation manual have helped establish the operational modalities for the design of the GILMD project. The project's performance with regard to scaling up is assessed as moderately satisfactory (4).
32. **Gender equality and women's empowerment.** Analysis of woman-headed households suggested no significant impact on any of the outcome variables of interest, such as income, food security, moving out of poverty and asset index. Similarly, the results suggested no significant changes in women's role in the decisions about buying assets, deciding which agricultural products are grown/harvested/produced, deciding which agricultural products will be sold or given away, or in how the land will be planted and taken care of.

33. The focus group discussions carried out with women indicated that neither they nor anyone they knew had been consulted regarding project design. The results of project interventions to ease women's work burden through the provision of piped in-house drinking water (thereby reducing their time to fetch water) indicated insignificant time savings. On the other hand, the interviews found that many women in the villages used the piped water for running their washing machines and for other cleaning tasks.
34. The results are a reflection of the fact that although the project adopted a target for the number of women beneficiaries, no modalities were set out for ensuring women's participation and representation in local groups and organizations. Similarly, gender was not considered in the definition of criteria for selecting infrastructure proposals, despite the fact that women in particular might have had an interest in improved infrastructure insofar as it leads to better access to social services and to saving time, thereby helping them reduce domestic and childcare responsibilities. None of the owners of the enterprises were women, although women were employed at some of them. Given the particular context of Georgia, where gender equality and women's empowerment require attention, the project failed to make a notable contribution. The project is rated as unsatisfactory (2) on this criterion.
35. **Environment and natural resources management.** The project's investments in infrastructure did not cause any environmental degradation. Financing of the agriculture sector through the project's rural leasing activities is unlikely to have any negative impact on the environment. However, project design per se appears to have paid little attention to environmental and natural resource management. The cooperation between IFAD and the Amelioration Company could have laid the groundwork for better use of natural resources, especially as related to watershed management. The Government's extension services could have been employed for this purpose. Given that little evidence suggests that this relationship was used to promote environmental and natural resource sustainability, it represents a missed opportunity. Further, the rehabilitation of canals likely reduced the wastage of water, but did not eliminate it: water leakage remained a problem. The project can be considered moderately unsatisfactory (3) in this impact domain. Insufficient focus on the domain represents a missed opportunity.
36. **Adaptation to climate change.** With the country experiencing warmer days and nights, more variable precipitation, and more frequent and intense climate events, there is clearly a need to reduce the risks to Georgian agriculture so as to make the sector more resilient. Adaptation to climate change was not explicitly part of the project design: it did not envision any climate mitigation or adaptation measures. The investments made by the project ensured the rehabilitation of irrigation canals in order to provide water to smallholders, although a more reliable water supply would have ensured better adaptation to the ill effects of climate change. On the other hand, given the variability in precipitation levels experienced by Georgia, one important aspect of adaptation to climate change should have been an emphasis on better management of irrigation water by the beneficiaries. This represents a missed opportunity, especially since an earlier IFAD project – the Rural Development Programme for Mountainous and Highland Areas – had taken adaptation to climate change into consideration in its design. This impact evaluation rates adaptation to climate change as moderately unsatisfactory (3).
37. **Performance of partners: Government.** The Ministry of Agriculture's decision to liquidate the ADPCC, which had responsibility for overall management and implementation of IFAD projects, led to virtual paralysis of project implementation and a difficult transition for the project management unit, due to loss of its earlier autonomy. A number of ADPCC/International Organisation's Projects Implementation Department staff of relevance to ASP management and implementation left the ADPCC. In addition, a considerable delay on the part of the

Government in approving the Rural Leasing Operations Manual further affected all activities planned for 2011. The M&E system was established two years after project start-up. As a result, progress and impact reports were initially not properly prepared, and the lack of a baseline at the start of the project meant that no targets were set within the project logical framework.

38. However, after 2012, with a new national government in place, the performance of the Government and the engagement of the Ministry of Agriculture with the ASP became more consistent. The external audit report to IFAD was submitted on time, and audit work complied with IFAD's Project Audit Guidelines. Similarly, the Ministry of Agriculture took responsibility for managing the M&E system. Consequently, the baseline survey was carried out in 2012 and an end-line survey was carried out at project completion.
39. **IFAD's performance.** IFAD made efforts to actively collaborate with other development partners such as the World Bank, the United States Agency for International Development and Swiss Development Cooperation, to learn from their investments in the agriculture sector in Georgia. On the other hand, the lack of active consultation with donors during the design and in the early stages of implementation meant that the cofinancing envisaged for the project did not materialize, and IFAD had to provide a supplementary loan of US\$5 million to make up the shortfall.
40. In terms of project design, IFAD took the initiative to ensure that responsibilities for infrastructure maintenance were established from the outset. However, the lack of assessment regarding some of the design assumptions may be questioned, in particular the apparently ambitious estimate of the level of participation of both commercial leasing companies and MFIs within the rural leasing component. In addition, the absence at project design of objective specifications of the selection criteria for the leasing proposals led initially to a delay in their approval. This was crucial, since at project design adherence to a strict timeline in processing financing applications from participating financial institutions (PFIs) had been considered to be a paramount for maintaining the interest of PFIs in the ASP.
41. IFAD regularly supervised the ASP, with the supervision reports generally being very informative. Supervision by IFAD facilitated project implementation, through changes in the financial allocations as well as modification of the implementation arrangements and improved specification of the criteria for leasing proposals. The disbursements were generally made on time, and approvals for the annual work plan and budget were given as soon as possible. The evaluation rates both IFAD and government performance as moderately satisfactory (4).

Conclusions

42. The project's premise was correct – that infrastructure bottlenecks were holding back the commercialization of agriculture in Georgia. The project has triggered revitalized interest in agriculture, encouraging other agencies such as the World Bank to scale up neglected irrigation schemes. Similarly, the project's attempt to be novel by introducing a financial product that was innovative within the Georgian context is commendable.
43. However, the project did not achieve the expected impact on its beneficiaries, especially in its biggest component – rehabilitation of the irrigation scheme. Impact analysis showed statistically insignificant results for several key variables of interest. A partially unrealistic design and late implementation in some areas were among the reasons for these results - most irrigation schemes were completed only towards the end of the project, and leasing through MFIs did not occur. However, the indirect beneficiaries of leasing showed an improvement in incomes and assets, and some employment was also generated in the agroenterprises that took up the leasing.

44. The project components were not integrated in a manner that would have produced the expected development results. The disparate nature of interventions, and a visible lack of synergy among them, affected the collective force required for achieving the desired development results.
45. The project's thrust of introducing innovative rural finance services was based on a limited business case analysis, especially for group leasing through MFIs. In addition, project preparation and appraisal failed to consult adequately with partners to determine the constraints and remedies involved in a proposed rural leasing component.
46. The project had a justified concern for backward linkages, but did not back it up with an adequate strategy. There was some mismatch between the targeting strategy for backward linkages and its implementation. For instance, some of the lessees used financing to lease the kind of equipment that had no effect on indirect beneficiaries in the form of increased employment or augmenting supplies from farmers.
47. A big gap in the project was in not synchronizing the rehabilitation of irrigation schemes with the strengthening of the capacity of institutions, improvement of on-farm water distribution, and training support to farmers and their mobilization and organization into informal water users' groups.
48. Women's empowerment was an important but unmet goal, which had been emphasized as a criterion for targeting. The project could have contributed positively towards improving the existing gender imbalance and low level of women's empowerment in Georgia, but was unable to do so because no gender strategy was formulated. However, the project had included the creation of employment for women as one of the terms for providing leasing to agroenterprises.

Recommendations

49. **Recommendation 1. Apply a holistic approach to infrastructure rehabilitation when attempting to achieve a measurable change in the lives of farmers.** At a minimum, providing appropriate support services in agricultural production and marketing should be built into the project design, especially if the aim is to move to commercialization. Similarly, it is recommended to assess the institutional gaps in the particular context when aiming for the long-term sustainability of infrastructure. The lack of harmonization of an infrastructure intervention with the mobilization and organization of beneficiaries into temporary or permanent users' groups can weaken the anticipated longer-term benefits, especially where government departments lack the necessary experience in participatory group formation.
50. **Recommendation 2. A longer-term programmatic approach is necessary for infrastructure-related interventions.** Some project start-up delays after loan effectiveness are inevitable. Within a normal five-year project time frame, substantial infrastructural construction will only be completed during the last two years of the project, leaving little time to identify effects and provide ongoing support services.
51. **Recommendation 3. Minimize the gap between the irrigation potential created and that utilized, by promoting environment and natural resource management.** Providing technical assistance, training and awareness-raising in watershed management to support the capacity needs of those charged with implementing and maintaining irrigation schemes, and those of the beneficiaries, can provide the impetus for a more sustainable use of water.

52. **Recommendation 4. When introducing innovative products in the rural financial space, undertake analysis of both the demand and the supply sides to ensure that new products meet the needs of all concerned.** The project could have acquired a more complete understanding of the requirements, restrictions and guidelines for leasing to MFIs, examining the extent to which they supported the project design. Similarly, for an innovative product, the design should evaluate the partners' risk appetite for taking up an innovative financial offering in rural areas (this being an environment that can be risky for financial products). Finally, estimation of demand for an innovative product should be based on rigorous ex ante analysis and adequate consultations with partners, and even with likely beneficiaries.