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**Republic of Armenia
North West Agricultural Services Project**

Completion Evaluation Report

December 2001

Report No. 1226-AM

REPUBLIC OF ARMENIA

NORTH WEST AGRICULTURAL SERVICES PROJECT (NWASP)
(AM – 455)

COMPLETION EVALUATION

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ABBREVIATIONS AND ACRONYMS

ACBA	Agricultural Co-operative Bank of Armenia
ADC	Agribusiness Development Centre (supported by USAID)
ASP	Agricultural Services Project (new IFAD project following on from NWASP)
ASIF	Armenian Social Infrastructure Fund (funded by World Bank loan)
ATG	Armenian Technology Group
ATGF	Armenian Technology Group Foundation (a new organization based on ATG)
BCR	benefit: cost ratio
CAG	civic action group
CEM	Completion Evaluation Mission
CI	Co-operating Institutions
CLP	Core Learning Partnership (part of IFAD evaluation framework)
DSI	Direct supervision by IFAD
FET	Field evaluation team of farmers and implementing agency staff used in the participatory evaluation
FFW	Food For Work
GOA	Government of Armenia
IFAD	International Fund for Agricultural Development
IDP	Irrigation Development Project
IRP	Irrigation Rehabilitation Project
M&E	Monitoring and Evaluation
MIS	Management Information System
MOF	Ministry of Finance
MOFA	Ministry of Food and Agriculture
MTR	Mid-Term Review
NGO	Non governmental organization
NWASP	North-West Agricultural Services Project
O&M	operations and maintenance
PCC	Project Coordinating Committee
PCU	Project Co-ordination Unit
PIU	Project Implementation Unit
SAR	Social Assessment Report prepared as part of IDP
SME	small – medium enterprise
SPSA	Seed Producers Support Association
SSE	small scale enterprises
UNOPS	United Nations Office for Project Services
USD	United States dollar
UWUA	Union of water users' associations
VA	village association (for implementing credit activities)
VAC	village association committee
VCL	village council leader
WUA	water user's association

UNITS

kg	kilograms
ha	hectares
m³	cubic metres

FISCAL YEAR

1 January to 31 December

CURRENCY UNITS

Currency	=	dram (ARD)
USD 1	=	ARD 545

AGREEMENT AT COMPLETION POINT

REPUBLIC OF ARMENIA

NORTH WEST AGRICULTURAL SERVICES PROJECT (455-AM)

AGREEMENT AT COMPLETION POINT

The findings, recommendations and follow-up actions from the Completion Evaluation of the North West Agricultural Services Project that have been agreed by the members of the Core Learning Partnership created to guide the evaluation are described below¹.

IRRIGATION REHABILITATION

1. Only some farmers using water from schemes rehabilitated through NWASP are fully aware of the roles and responsibilities of the various parties involved in the delivery and use of water. As a result, there are misunderstandings that could undermine future relationships between water users, water supply companies and the Government of Armenia (GOA). These could block the potential gains for Government and for water users from decentralised irrigation management by water user associations.

Recommendation. Fully transparent information on the ways that water fees are set and allocated among concerned agencies should be made available to all water users through water user associations.

Follow-up

- GOA will support repeated widespread dissemination of clear information to water user associations on water user fees and the role and responsibilities of various parties in fee collection and use. The Center for Technical Assistance to Water Users Organisations (CTA, established within the ASP framework), on behalf of the Ministry of Agriculture (MOA) will propose and collaborate with the relevant agencies of the State Water Management Committee to implement this recommendation.

2. The long run sustainability of rehabilitated irrigation schemes will depend on the sustainability of arrangements for covering their operation and maintenance. To plan sustainable long-term arrangements the GOA needs to know the true cost to the Armenian economy and to the Armenian Government of the operation and maintenance of on-farm, secondary and main schemes.

Recommendation. A study of the cost of water delivery should be immediately undertaken, and the results of this study should be disseminated to all interested parties.

Recommendation. Appropriate amendments should then be made to the Water Code providing special conditions for water tariff definition with approval by Parliament on an annual basis.

¹ Members of the Core Learning Partnership are: Mr. Zaven Gevorgyan (Minister, MOFA); Mr. Gagik Matevosyan (Project Coordinator, NWASP); Mr. Samvel Ghazaryan (Head, WMS, IRP); Mr. Stepan Gishyan (Managing Director, ACBA); Mr. Haik Minassian (President, SHEN); Mr. Roger Benton (ATG); Mr. Arkadi Markarian (Director SPSA); Mr. Vardan Movsisyan (Chairman, WUAU of Ararat); Mr. Klemens van de Sand (Assistant President, IFAD); Mr. Pietro Turilli (CPM, IFAD); and Ms Chase Palmeri (SEO, IFAD).

ATG did not provide any comments on the draft evaluation report and neither did it participate workshop to finalise the Agreement at Completion Point.

Follow-up

- MOA should present a proposal to GOA to immediately undertake a study, by an independent organisation, of the cost of water delivery in a cross-section of irrigation schemes. This process should provide for the involvement of interested national stakeholders.
- Should GOA agree to this proposal, IFAD will seek to assist GOA in mobilising grant funds to finance such a study.

Recommendation. On the basis of the results of the study there should be a: (i) review of government policies on water fees and on the allocation of investment resources to irrigation infrastructure; (ii) review the capacity, on a regional basis, to cover costs of irrigation; and (iii) examine the abilities of individual farmers to pay water charges.

Follow-up

- MOA will present a proposal to GOA to review policies of water tariff definition and investment in irrigation infrastructure on the basis of the water study.
- IFAD will review ASP design and implementation in light of study findings.
- MOA will present a proposal to GOA for a transparent methodology of water tariff calculation.

3. Grassroots organisations have demonstrated the capacity to undertake civil works at acceptable technical standards at low cost and in short time periods.

Recommendation. Current policies regarding use of loan funds for civil works should be changed to allow water user associations to supervise and undertake rehabilitation of their own schemes with technical backstopping and monitoring by concerned agencies and ASP.

Recommendation. In order to enhance the development and sustainability of water users organisations, the rules and regulations governing irrigation water supply and use should be revised to provide for equal legal rights for both contractual parties (supplier and user).

Recommendation. The Ministry of Agriculture should review irrigation norms on a regional and crop-specific basis.

Follow-up

- ASP and concerned implementing agencies will consider more flexible arrangements for the implementation of civil works by grassroots organisations on irrigation schemes under their responsibility.
- MOA will present a proposal to GOA to prepare new rules for water supply and use involving all interested parties so as to ensure equal rights and responsibilities.
- MOA should review irrigation norms in a participatory manner and present revised norms for approval by GOA.

RURAL CREDIT

4. Conservative banking practices led to good performance by ACBA that provide it with a sound basis as a sustainable financial institution working in the rural sector. However, due to collateral requirements, needs for credit and other financial services among the rural poor are still largely unmet by ACBA.

Recommendation. New approaches to providing financial services (also including credit unions and clubs) to borrowers without collateral should be tested.

Follow-up

- GOA, with IFAD assistance, will review potential new approaches to financial services delivery in the ASP framework.

Recommendation. ACBA should consider the potential to use real estate to help meet collateral requirements.

Recommendation. ACBA should consider reviewing the loan timing process, taking into account the agricultural production cycle as well as giving more consideration to the individual needs and requirements of borrowers.

Follow-up

- ASP, in collaboration with ACBA, will review policies for the use of real estate to help meet collateral requirements, the loan timing process and increased attention to the requirements of individual borrowers.

SEEDS

5. There was disagreement about advantages and disadvantages of imported versus local seed varieties. This prevented farmers and others from having the possibility to select the most appropriate certified seed varieties.

Recommendation. Widespread easily understandable information about the benefits of using imported and locally produced certified seed should be made available to farmers and seed producers.

Recommendation. Seed producers should be involved in helping to select varieties for testing, eventual reproduction and certification.

Follow-up

- MOA extension and seed certification services will disseminate clear information about the uses, availability and benefits of certified seeds.

6. Some seed grower groups in Lori worked together to source new seed for trials and to produce second generation seed and to market it.

Recommendation. Grassroots seed producer organisations, based on the models of Vardablur and Amrakits, in Lori should be initiated at district level in each marz to allow growers to share technical and market information. Participants in these organisations should have access to the necessary land, technical skills and financial resources to be successfully involved in seed production activities.

Follow-up

- MOA will explore ways of supporting collaboration among farmers in seed production and marketing in the future. It will consider the possibility of working with Seed Producers Associations for this purpose.

COMMUNITY DEVELOPMENT

7. Community development activities such as the rehabilitation of drinking water systems were successful and well regarded by beneficiaries. Yet changes were made during the implementation of NWASP whereby lending to entrepreneurs was adopted to generate economic activity and employment as a means of achieving community development. This brings about an effective shift from creation of public goods (where access is not restricted and direct beneficiaries are numerous) to creation of private goods (where access is restricted and direct beneficiaries are relatively few). It not only narrowed the range of NWASP beneficiaries, but it also reduced project outreach to women that the component was designed to help.

Recommendation. The approach to the use of grant financing to reduce poverty through community development should be reviewed and broadened, with gender impact in mind. If communities wish to focus on employment generation, for example, a range of activities such as training and assistance to entrepreneurs in preparing business plans, accessing formal institutions, or investing remittances could be considered.

Follow-up

- Following one year of ASP implementation, IFAD will conduct a detailed review of the proposed approach for community economic projects to be implemented through Aniv Foundation. On the basis of these results, IFAD will decide whether to continue the approach.

8. Grassroots organisations such as the civic action groups, water user associations and village associations were very good mechanisms for widespread people's involvement and ownership of government investment activities in local communities. They offer a very promising means for ensuring sustainable benefit streams from investments and for communities to help themselves develop and take on other tasks in future.

Recommendation. The NWASP model of developing and supporting grassroots organisations to assess people's priorities, plan, and implement activities should be used wherever possible. Local NGOs could be assigned the responsibility for working with projects to develop these grassroots organisations.

Follow-up

- MOA will present a proposal to Government to support the development of grassroots organisations in implementation of future public sector investments for development of goods and services provided by the public sector.
- GOA and IFAD will consider the potential role for local NGO's in developing grassroots organisations.

INFORMATION

9. In many cases, farmers were not clear about project objectives, the relationship between various project activities and the connection between the project and normal government programmes.

Recommendation. All projects should include communications programmes to provide target groups with information they need to understand project objectives and activities. Widespread information campaigns should start during project design and continue throughout implementation.

Follow-up

- GOA and IFAD will conduct widespread information campaigns explaining project objectives, activities and institutional arrangements in simple terms that can be easily understood by the target population.

PROJECT CLOSURE & PHASING

10. The IFAD loan for the NWSAP project was disbursed ahead of schedule and most project targets have been fully achieved, if not surpassed. For this reason IFAD is considering closing this project. However, the evaluation found that the grassroots organisations needed to sustain the benefits from new services and newly rehabilitated infrastructure are not yet fully developed.

Recommendation. The impact and effectiveness of NWASP activities should be monitored up to the original planned completion date of December 2002. This should focus on the performance and sustainability of the grassroots organisations created through NWASP.

Follow-Up

- In the context of the ASP, GOA will also follow activities of grassroots organisations in NWASP communities, with a view to incorporate information and lessons learned about their performance in planning and implementation of ASP.
- In the context of ASP, IFAD and GOA will plan the phasing of physical works and services to more closely match the development of community organisations and institutions that will be expected to manage them.

IFAD DIRECT SUPERVISION OF LOANS

12. No system has been created within IFAD that responds to the concerns of IFAD governing bodies that IFAD monitor the costs of direct supervision.

Recommendation. There should be a monitoring system to analyse financial and human resource costs to IFAD of direct supervision.

Follow-up

- The IFAD Task Force on Direct Supervision will work with the IFAD Controller to set up a system for monitoring costs.

13. Knowledge acquired by IFAD staff and consultants during the direct supervision of NWASP was not captured or explicitly shared with others.

Recommendation. There should be explicit ways of sharing, within IFAD the knowledge that it acquires through direct supervision.

Follow-up

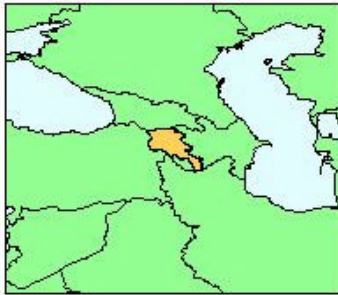
- The IFAD Task Force on Direct Supervision will devise a way for individuals who are involved in direct supervision to share the knowledge they acquire and exchange views with others.

14. Concentration of all effective decision-making power concerning the lending strategy, project designs, project supervision, project monitoring, approval of disbursements and approval of amendments in one person leads to time saving in information gathering, decision making and action. However, no single perspective is without some limitation.

Recommendation. A system of checks and balances should be created whereby responsibility for design, supervision, monitoring, and approval processes are shared rather than vested in a single staff member as at present.

Follow-up

- In the context of the general review of the project cycle, IFAD Management will consider the possible advantages of sharing responsibilities for design and implementation of directly supervised projects within IFAD.



ARMENIA

NORTH-WEST AGRICULTURAL SERVICES PROJECT (455-AM)

Project Area



NORTH WEST AGRICULTURAL SERVICES PROJECT (NWASP)

(AM – 455)

COMPLETION EVALUATION

PROJECT SUMMARY

Region:	Aragatsotn, Shirak and Lori marz
Type of Project:	Irrigation rehabilitation, rural credit, agriculture support services including seed multiplication and veterinary services
Planned number of beneficiaries:	9 500 households
Previous IFAD operations in area:	Irrigation Rehabilitation Project
Co-operating institutions:	None
Total project cost at appraisal:	USD 15. 91 million
IFAD loan (%):	81.1%
Co financier:	EU TACIS (withdrawn)
Contribution of borrower:	USD 500 000
IFAD loan disbursement:	USD 11. 79 million (to March 2001)
Evaluation (Completion)	April 2001
Project Identification:	1994
Preparation:	August 1996
Appraisal:	May 1997
Loan Approval:	December 1997
Loan Agreement:	December 1997
Project Start-up:	February 1998
Original closing:	December 2002 (Appraisal)
Present Situation:	Implementation
Other project interventions in area:	Irrigation Rehabilitation Project

**NORTH WEST AGRICULTURAL SERVICES PROJECT (NWASP)
(AM – 455)**

COMPLETION EVALUATION

Executive Summary

1. The IFAD Office of Evaluations and Studies carried out a Completion Evaluation (CE) of the IFAD-financed North West Agricultural Services Project (NWASP) in Armenia from February to June 2001. The IFAD loan to finance the Project was identified in 1994, approved in December 1997. The loan became effective in April 1998 and was scheduled to close in December 2002. However, due to rapid implementation, Project activities and disbursements were more than 90% complete at the time of the evaluation.
2. The Project was subject to a Completion Evaluation because it is part of an IFAD pilot programme for direct supervision. The Evaluation gave IFAD the first opportunity to analyse the experience of direct supervision. It also provided an opportunity to draw lessons in both water management and rural finance for reference in the design and implementation of other IFAD projects in Armenia and elsewhere in the region.

The Evaluation

3. The IFAD approach to evaluation included the creation of a Core Learning Partnership (CLP) of key project stakeholders that helped to set the objectives and key questions for the Evaluation.¹ The CLP reviewed the draft Evaluation Report and participated in a Workshop held in Tsakhkadzor in August 2001 where it concluded an Agreement at Completion Point that detailed those recommendations and follow-up for which there was a consensus.
4. The objectives set for the Completion Evaluation were to: (i) learn how, and to what the extent, the project achieved its overall objective to improve the living conditions of the target population; (ii) determine the impact that direct supervision of NWASP by IFAD has had on NWASP and on IFAD; and, (iii) provide feedback on NWASP project outcomes that can help partners associated with the future Agricultural Services Project successfully achieve their objectives. The key questions posed by the CLP were:
 - **How did the Project change the living conditions of the target population in terms of income, production and food security?**
 - **To what extent were the designs of the various components *relevant* to the needs of the target group?**
 - **How *effective* were implementing agencies in reaching their physical objectives?**
 - **How *efficient* were the implementing agencies in achieving the maximum level of benefits with the resources allocated to them?**
 - **To what extent can the benefits of the various components be *sustained* after project completion?**
 - **What were the costs and benefits of Direct Supervision of this project by IFAD?**

¹ Members of the Core Learning Partnership are: Mr. Zaven Gevorgyan (Minister, MOFA); Mr. Gagik Matevosyan (Project Coordinator, NWASP); Mr. Samvel Ghazaryan (Head, WMS, IRP); Mr. Stepan Gishyan (Managing Director, ACBA); Mr. Haik Minassian (President, SHEN); Mr Roger Benton (ATG); Mr Arkadi Markarian (Director SPSA); Mr. Vardan Movsisyan (Chairman, WUAU of Ararat); Mr. Klemens van de Sand (Assistant President, IFAD); Mr. Pietro Turilli (CPM, IFAD); and Ms Chase Palmeri (SEO, IFAD).

5. With respect to the dissemination of Evaluation findings and recommendations, the CLP placed a high priority on using the Evaluation to create a greater awareness of the project outcomes and lessons within higher levels of Government.
6. A participatory approach was used wherein stakeholders, including several project beneficiaries and implementing agency staff, served as the Evaluation Team working in the field under the guidance of a Team Leader. In addition, the evaluation included a Socio-Economic Survey that repeated interviews with the same 699 households interviewed for the Socio-Economic Baseline Survey in August 1998 and again in late 1999.
7. Altogether, the sources of information for the evaluation included: (i) more than 300 beneficiaries, leaders of communities, and grassroots organisations in 48 communities interviewed during evaluation fieldwork; (ii) the 699 households interviewed for the formal socio-economic survey; (iii) key informants from implementing agencies interviewed by the Team Leader; and, (iv) IFAD staff and consultants responsible for project supervision who responded to a questionnaire or were interviewed.
8. At the end of the fieldwork, participants in the evaluation and agency staff rated the effectiveness of the evaluation. In each *marz* work concluded with a briefing for officials and community and implementing agency leaders presented by beneficiary members of the Evaluation Team.¹ A debriefing / wrap-up seminar was held in Yerevan attended by high-level Ministry officials on 6 April 2001. At the seminar reports were presented on each project component by beneficiaries, and on overall preliminary conclusions by the Team Leader. Finally, the evaluation processes concluded with a Workshop held in Tsakhkadzor in August 2001 with the drafting of an Agreement at Completion Point that includes those recommendations and follow-up upon which there is a consensus.

The Project Design

9. The goal of NWASP was ‘to improve the living conditions of the target population in terms of higher levels of production, income and food security’. It operates in three *Marzer*: Aragatsotn, Lori and Shirak in the north-west. The Ministry of Food and Agriculture (MOFA) is the project executing agency. It established a Project Co-ordination Unit (PCU) based in Yerevan that implemented the project through six agencies: Water Management Services (WMS) section of the Irrigation Rehabilitation Programme (IRP), the Agricultural Cooperative Bank of Armenia (ACBA), an international NGO called the Armenian Technology Group (ATG), and an Armenian NGO, SHEN.
10. The estimated total project cost was USD 13.4 million of which USD 12.9 million was funded by IFAD and USD 0.5 million by the GOA. As at 1 March 2001, approximately USD 12 million had been disbursed. Project implementation activities were scheduled to end in June 2001, approximately 18 months ahead of schedule.
11. The target population numbered about 335 000. It was composed largely of small farm households with an average farm size of 1.3 ha. Many of these had been part of the commune/state farm system before the privatisation of farming land. Some were headed by individuals allocated plots of land after being dislocated from industrial enterprises that closed down when Armenia became a separate republic. Benefits were expected to reach some 9 500 households about 13% of the total. Activities in the community development component were to be directed to the poorer villages. In the Credit component the aim was to assist to women take up to 30% of loans.
12. The Project had four components:

Irrigation Rehabilitation: to rehabilitate irrigation water supply and control structures; and help improve management, operations and maintenance (O&M) of the irrigation systems through water user associations

¹ A *marz* is a government administrative unit comparable to a Province.

Rural Credit: to support ACBA in increasing its lending services to farmers in the three *marz*, including the provision of capital and on-lending resources, building and equipping branch offices and development of village associations (VAs) as shareholders in ACBA to organize borrowers at a village level

Agricultural and Livestock Development: to produce good quality seed and provide veterinary services for livestock production

Community Development: to assist the poorest villages to identify, plan and implement their own priority activities using participatory techniques.

The Key Questions

How did the Project change the living conditions of the target population in terms of income, production and food security?

13. Findings with respect to income and living standards from the survey were difficult to interpret. The Survey found little difference between beneficiaries and control group households in the increases in the value of their average total income (cash and own consumption) between August 1998 and March 2001. At the time of the survey, farmers were experiencing drought conditions and approximately 80% of beneficiary households reported incomes below the national poverty line. However, they fared somewhat better than control group farmers, 90% of whom reported to be below the poverty line. Both groups have experienced a sharp decline in living standards from the time of the repeater survey in October 1999 when only 6% of beneficiaries and 18% of control group members were below the poverty line.
14. The survey found significant changes in the agricultural production levels of households that participated in NWASP compared to those from the control group who did not participate in the project. For example, for a typical beneficiary household output in cereals and potatoes increased by more than 66%. Whereas, output for control group households stayed the same or fell with respect to those two crops. Outputs of vegetables, fruits and fodder were also higher for beneficiaries than for control households. Overall, the total value of their output was 30% higher than the value of agricultural output of the control group.
15. With respect to food security, the percentage of households with a three-month supply of food in storage fell for both the beneficiary and control groups. This was largely due to on-going drought conditions and seasonal difference in the period during which data was collected. However, the drop in beneficiary households with such stocks was only 3% while it was 20% for the control group. Food intake has also become more regular among beneficiaries. At the time of the baseline survey 19% of households reported skipping daily meals. That figure has now dropped to 10% among project beneficiaries, and it is 17% for the control group. The survey showed that 66% of women and children consumed three meals per day in the four months preceding the survey, while only 50% did so at the time of the baseline survey in August 1998.

To what extent were the designs of the various components relevant to the needs of the target group?

16. The Evaluation found that beneficiaries were largely satisfied with the designs of each component, subject to constraints imposed by funding. Communities indicated that inadequate irrigation resources were the major constraint to improved living conditions. Moreover, irrigation improvement had widespread relevance, providing benefits in a relatively equitable fashion to a cross-section of the

community. Because design and implementation was guided by community groups it provided a strong link to community needs.

17. The same held true for the community development component. The processes designed were relevant. Moreover these processes allowed communities to demand and effect a shift in the types of activities selected the project would support. Yet, the shift created by the new activities chosen by community Civil Action Groups was not entirely positive. It re-allocated project funding from public to private goods. The evaluation team observed that in these cases most of the direct benefits from the project went to a very small number of beneficiaries who owned agro-enterprises that received grants. The responsible NGO argued that the indirect benefits to the community from the new enterprise in terms of economic activity and employment offset this seeming imbalance.
18. The credit component was relevant to the needs of many members of the target group. However, it was implemented in such a way as to be accessible to very few. Limited funds were effectively rationed by relatively stringent collateral requirements. In this way the project helped build a sound financial institution that, in future, is likely to reach further down to smaller, higher risk farmers. However, during the project implementation period this group did not benefit from project-supported financial services.
19. The seed component was designed to meet the expected need for certified cereal and potato seed that would allow farmers to achieve higher crop productivity in rehabilitated irrigated fields. The relevance of this component is called into question by the fact that effective demand for these seeds was low. This was found to be due to: (i) farmer uncertainty over the suitability of imported cereal varieties for local growing conditions; (ii) local consumers' taste; and, (iii) low levels of farmer incomes that have prohibited purchase of higher cost improved seed.

How effective were the implementing agencies in reaching their physical objectives?

20. The Project was very effective in achieving most of the physical targets set in the logical framework. As shown below, implementing agencies even surpassed irrigation, credit and seed component targets.

Table 1 : Achievement indicators

Component/Sub-component	Indicator	Planned at Appiasal	Actual April '01	
Irrigation and Water Management <i>Water Management</i>	Field offices established/upgraded	3	3	
	WUAs formed (days)	50	58	
	WUA training	150	174	
	<i>Irrigation Rehabilitation</i>	Designs (scheme) carried out	50	54
		Schemes rehabilitated	50	50
		Schemes rehabilitated (ha)	6 975	17 361
Agricultural Credit	Village associations established	100	228	
	Branch offices established/upgraded	3	2	
	Loans extended (no.)	6 108	7 466	
	Loans extended (USD)	4 095 800	5 462 151	
	Loans repaid/recovered (no.)	6 108	4 924	
	Loans repaid/recovered(USD)	4 095 800	3 505 637	
	Loans extended to women (no.)	1 832	698	
	Loans extended to women(USD)	1 228 740	527 209	
Community Development	Contracts to participating communities	100	81	
	Community projects completed	100	61	
Crop & Livestock Development <i>Seed multiplication</i>	Farmers engaged in seed multiplication	800	367	
	Area planted for seed multiplication (ha)	1 200	1 820	
	Farmers repaid seed equivalent	n/a	284	
	<i>Regulatory services</i>	Certifications made	n/a	0
		Seed testing laboratories rehabilitated	4	4
<i>Animal health care</i>	Veterinary laboratories rehabilitated	3	3	
	Training courses held	4	1	
	Disease diagnostic tests undertaken	70	0	

How efficient were the implementing agencies in achieving the maximum level of benefits with the resources allocated to them?

21. Beneficiaries rated project efficiency as high. Quantitative data also shows that the level of efficiency of the implementing agencies was quite high in terms of transforming financial inputs into physical outputs. This was especially true of WMS and IRP in irrigation, but also of ACBA in credit and to some extent ATG in seed supply. As noted above, funds made available in the Project were managed in such a way as to realize output levels that were higher than forecast at appraisal, in less time. The number of hectares covered in irrigation rehabilitation was, for example, 250% of what was planned. Likewise, the value of funds lent was 133% of planned levels. The Project was able to undertake more training days with allocated funds, establish more village associations for credit, and plant more hectares for seed multiplication.
22. However, these results need to be interpreted with caution. While at least partly attributable to good management, other factors came into play. They can be partly attributed to over-estimation of costs at appraisal, exchange rate fluctuations, and contributions in-kind from beneficiaries that exceeded expectations. In the case of lending, the good management that led to high repayment levels and the resultant possibility of increase the number of loans was the result of very conservative loan screening

criteria. This had the undesired consequence of excluding beneficiaries the Project was designed to reach in the project area.

To what extent can the benefits of the various components be sustained after project completion?

23. The Evaluation found that the rapidity of project implementation which clearly contributed to its effectiveness and efficiency could potentially have a negative effect on the sustainability of its benefits: early project closure could cut short support for village level organizations created by the project. Many organizations, after only three years of project implementation, may not have had sufficient time to develop into mature institutions able to function on a sustained basis.
24. Irrigation Component Without a strong commitment from GOA to work with and support the WUAs, and translation of commitment into action, the benefits from irrigation rehabilitation investments will not be sustainable. Due to the dry seasons and problems in dealing with the water supply companies, WUAs currently face difficulties raising the funds from water charges to both pay for bulk water supply and fund O&M operations. Commercial farmers will be able to fund water charges. However, smaller non-commercial/subsistence farmers – potentially half the farmers in the project area - are unlikely to have acquired surpluses to pay the full costs. Inability to pay could well undermine the current model of irrigation water supply and management of irrigation O&M in Armenia.
25. Agricultural Credit Using Village Associations, ACBA has developed processes and procedures for managing a rural credit programme providing a range of credit from small seasonal loans of USD 100–200 through to longer term loans of up to USD 5 000. ACBA itself is providing agricultural loans for up to USD 40 000. Thanks to sound financial management and successful on-lending practices, there is every reason to expect that current levels of lending in Lori and Aragatzotn will continue. However, expansion in lending will be constrained by the ACBA levels of capital and access to additional credit lines. In future, savings mobilization from rural communities through the banking network created by the Project will be important for sustaining and expanding banking services.
26. Community Development Ongoing benefits from social development activities will depend on the energy and enthusiasm of the Civic Action Groups to mobilize resources for further projects to assist their communities. SHEN monitoring reports indicate that half of the groups created have taken steps to achieve this. Yet, without continuing interest and support from SHEN or a similar agency, this energy is likely to dissipate. The sustainability of the new economic development projects funded by loans from SHEN will depend on the entrepreneurship of the individuals who own the businesses that received them.

What were the costs and benefits of Direct Supervision of this project to IFAD?

27. Actual expenditures on IFAD direct supervision and follow-up of this project were approximately USD 65 000 per year. About USD 45 000 was covered by the IFAD regular budget and USD 20 000 came from extra-budgetary resources in the form of supplementary funds. The Country Portfolio Manager and Programme Assistant estimate that roughly 40% of their time was allocated to direct supervision of the project. Other IFAD colleagues indicated that this might be an underestimation of actual CPM and PA time dedicated. If this cost - normally covered in payments to Cooperating Institutions - is accounted for, then overall costs increase to USD 139 000. These costs, in terms of staff time, were borne by the CPM and Programme Assistant. They were incurred at the expense of other projects and IFAD duties that received less of their attention and at their own personal expense. The assignment of an Associate Professional Officer to assist the CPM added human resources (and costs), attenuating the burden on the CPM and PA for part of the project implementation period.

28. Comparison with other projects directly supervised by IFAD from among the current pilot programme and eventual “second generation” IFAD supervised projects will be needed in order to determine the extent to which staff time costs were high because of the first time or path-breaking nature of direct supervision in the NWASP case. However, while costs incurred in the recruitment of consultants for implementation support (in this case about two thirds of the USD 65 000) could be treated as variable, the basic cost to IFAD of direct supervision in terms of staff time is fixed. And, experience from this project would indicate that it is likely to remain higher than originally expected, even after experience is gained in the related processes. This will be due to the numerous time consuming tasks in loan administration, loan supervision and implementation support and because of the nature of the close working relationship that develops between the project management and the IFAD staff.
29. The most apparent benefits of direct supervision to the project were derived from the responsiveness of IFAD to project needs. This was manifest in rapid replies to queries from the PCU related interpretation of the Appraisal Report and IFAD procedures with respect to procurement, recruitment and other disbursement issues. It was a significant contributing factor to the quick pace of project implementation and full disbursement before the expected closing date.
30. Project implementing agency staff were generally appreciative of the quality of technical support provided by IFAD in project implementation. This is attributable, at least in part, to IFAD direct supervision as it heightened IFAD’s understanding of project needs for support as well as its commitment to efficient provision of support. The project also appreciated the continuity of working with one interlocutor from design through implementation. Regrettably, the expected learning benefits to improve performance were not shared with IFAD generally, but rather confined to the staff directly concerned. Moreover, for the IFAD portfolio, the learning was limited as a result of the fact that many of the same individuals – both staff and consultants – were responsible for both project design and implementation. There was an advantage to this in that the individuals involved could learn, through direct observation, the outcomes resulting from their own decisions made in project design. That is, they could see for themselves what worked and what didn’t. However, the main disadvantage was that no constructive critical review or questioning of decisions took place outside of a very small circle of individuals. Hence, there was a lost opportunity for them to learn from the perspectives of other professionals within IFAD who have different skills and experiences to draw on or who were not as closely caught up in the everyday project matters.

Project Performance by Component

31. *Irrigation Rehabilitation and Water Management* A total of 322 km of canals, pipes and associated control structures were installed bringing 19,688 ha of previously irrigated land back into full production. The Government adopted the WUA model developed by the Project for replication throughout Armenia. However, without the training courses and support services provided by NWASP, it has been considerably less successful outside the project area. Three federations/unions of WUAs have been formed in the project area to provide a link between users of common supply channels and to bring a united voice to work with government and water supply companies. Despite recent very low rainfall some systems were still able to achieve higher yields, even with limited water supplies. WUAs have had some success in collecting water charges where irrigation water has been available. However subsistence farmers may not be able to generate enough cash income to pay water charges which will compromise the whole WUA / O&M funding model. Communities are still confusing WUA charges with government tax collection.
32. *Rural Credit*. The formal credit component of the Project has been implemented through ACBA using collateral-based lending. In 2000, 2314 loans totaling USD 1 635 637 were disbursed to clients in project communities. ACBA successfully established branch offices in the three project *marzer*. IFAD loan funds provided to ACBA as a grant allowed it to increase its capital base and expand lending to more farmers and small business clients. While ACBA business suffered from serious mismanagement in Shirak, the contrary was true in Lori and Aragatsotn where loan repayments were close to 100%.

This too allowed for expanded lending beyond levels forecast in the Appraisal Report. Village Associations were created in 186 project villages with 5225 members to identify borrowers, screen applications and provide joint security for loans. Credit was short term and initially targeted at crop inputs, but is now being used to purchase large livestock. A significant weakness in design, related to the prevailing financial sector environment in Armenia, was the absence of a companion programme to mobilize savings in communities. In addition, ACBA proved unwilling to reach out to borrowers without collateral, despite IFAD Supervision Mission pressure to do so through group lending.

33. *Community Development* Villages in each *marz* based on poverty criteria were selected and provided with assistance to identify and undertake social and economic development projects. CAGs were encouraged to identify other social development projects that could be proposed to other organizations for funding. Sixty-one social development projects were completed. The majority were water supply projects, as these were achievable within the project-defined funding limit of USD 10 000. Half the CAGs have initiated further activities in their villages. At the request of communities, emphasis shifted from social development to group economic development projects, such as rehabilitation of machinery stations. It shifted again, in late 2000, to the provision of loans by SHEN to individual farmers to provide employment opportunities in their communities. Nineteen such activities were funded.
34. *Seed Production Services* ATG efforts have been directed to increasing the supply of certified and graded cereal seed with some support to potato and alfalfa seed production. More than 900 t of elite and first generation seed has been produced on over 400 ha but has been limited by the dry seasons. Informal arrangements to distribute this seed to poorer farmers have been very successful using seed swapping and buybacks to overcome their inability to pay for the seed. ATG has also purchased large quantities of seed for distribution in other parts of Armenia to the benefit of USAID food security programmes. Yet, the seed production programme has been clouded by disagreements over consumer acceptance of US wheat varieties and the need to use higher seeding rates for Armenian and Russian seeds. Performance is declining in the seed and input credit programmes operated by ATG. Seed testing equipment provided to MOFA cannot be fully utilised because funds were not allocated to training.
35. *Animal Health.* Inputs were financed by the IFAD loan to upgrade the *marz* veterinary laboratories. These have not been accompanied by the government regulation required to support private veterinarians. Therefore the project could not provide the planned equipment and training to the private sector. Nonetheless, private veterinarians are ensuring essential vaccination and animal health programmes in the project area.
36. *Project Coordination.* The performance of the PCU and project coordination in general has been exceptionally good. Excessive audit and checking on PCU activities by various government authorities had high costs in terms of staff time and would appear unjustifiable. Good management combined with the use of the SOF provided before the loan signature and good support from the IFAD Country Portfolio Manager (CPM) led to not only meeting but also exceeding targets in virtually all components, even ahead of schedule. The Project Coordinating Council (PCC) met regularly. However, project design did not include a formal coordination or planning group at the level of individual *marzer*, which would have permitted better decentralized bottom-up planning. In implementation, the inputs of the *marz* M&E coordinators, who all had very close relationships with the *marz* governments compensated for this.

Project Impact

37. Each of the project components led to successful outcomes. As noted above in paragraphs 13.-15., there have been improvements for beneficiaries in terms of production and food security, even in the face of declining per capita income levels for beneficiary and control groups. However, it is very difficult to draw definitive conclusions about the project impact at the household level due to: (i) the short time that has elapsed between surveys; (ii) differences in timing, within the agricultural calendar, of the surveys (August 1998, October 1999 and March 2001); and, (iii) incidence of drought between the first repeater survey and the survey done for the Evaluation.

38. More than 36 000 households directly benefited from some or all project activities - roughly 250% of the 9 500 households the project was expected to reach. More than 20 000 families have benefited from the irrigation rehabilitation activities servicing 18 700 ha. A further 18 000 benefited from the 78 social and economic development projects facilitated by SHEN. ACBA credit activities included 7 466 loans. In the year 2000, for example, it reached 2 400 households with credit for farming crop inputs and livestock to improve their businesses and take better advantage of upgraded irrigation facilities.
39. Apart from household level impact with respect to food security and production levels, project impact on households and communities is detectable, in terms of social, economic and technical practices. Cropping patterns, cropping practices, areas planted and yields have changed because of the project, for example, cultivation is intensifying and land parcels are becoming larger. Economic activities, such as marketing have changed - a lower proportion of food crops are being marketed and credit is being used to purchase inputs. Social behavioral patterns are changing, as a result of the project people are forging new village-level working relationships in community organisations that replace old politically oriented ones. However, the project has been operating for only three years and it is one of many new forces of change in the project area, not all changes observed can be fully attributable to the project.
40. Based on Evaluation observations the greatest long term impact on the communities served by NWASP are likely to come from the development and support inputs provided to grass roots organizations. The 186 ACBA village associations, 58 water user associations, and 55 civic action groups created in the project area have begun to develop the capacity to sustain current benefit levels and undertake further activities. However, they have not yet had time to take root and are not fully prepared to assume their responsibilities for physical outputs. From this point of view, project phasing was sub-optimal and future benefit streams will be in jeopardy if the project is closed prematurely because funds are fully disbursed.
41. To consider the beneficiary point of view, the Evaluation team compiled responses obtained at the village level whereby the beneficiaries rated the impact of project activities by component, based on their own subjective definitions of impact. These ratings, shown below, were combined with beneficiary ratings of project according to criteria set by the CLP and specified in the key questions of the evaluation.

Evaluation Teams Synthesis of 32 Community Assessments of Project Activities

<i>Marz</i>	Assessment of village activities					Assessment of Grassroots Organizations		
	Impact	Relevance	Efficiency	Effective.	Sustain.	Relevance	Effective.	Sustain.
Community Dev.								
Shirak	2.7	2.7	2.7	2.5	2.7	3.0	2.7	2.7
Lori	2.9	2.3	2.9	2.9	3.0	2.6	2.1	2.0
Credit								
Shirak	1.7	2.4	1.9	2.0	1.9	2.1	1.5	1.7
Lori	2.6	1.8	2.1	2.6	2.0	2.4	2.0	2.1
Seed								
Shirak	2.0	3.0	2.5	2.1	2.1	n.o.	n.o.	n.o.
Lori	2.4	1.9	2.5	2.4	2.2	n.o.	n.o.	n.o.
Irrigation								
Shirak	2.6	2.6	2.6	2.5	2.7	2.8	2.3	2.6
Lori	2.9	2.6	3	2.8	2.6	2.9	2.3	2.8

(Ratings levels 0 = none, 1 = low, 2 = medium, 3 = high)

Recommendations

Project Closure

- The impact and effectiveness of NWASP activities should be monitored up to the original planned completion date of December 2002. This should focus on the performance and sustainability of the grassroots organisations created through NWASP.

Irrigation

- Fully transparent information on the ways that water fees are set, the ways that fees collected are allocated among concerned agencies, and the ways that fees are used by those agencies should be made available to all water users through water user associations.
- An independent study of the cost of water delivery should be immediately undertaken.
- On the basis of the results of study there should be a: (i) review of government policies on the allocation of investment resources to irrigation infrastructure; and, (ii) re-examination of the viability of subsistence and small-scale farms given the costs of water that they may have to bear.
- Current policies regarding use of loan funds for civil works should be changed to allow water user associations to supervise and undertake rehabilitation of schemes with technical backstopping by concerned government agency and monitoring by the project.

Credit and Finance

- New approaches to providing financial services to borrowers without collateral should be tested.
- Involvement of non-financial institutions should be limited to: (i) support borrowers in accessing and using finance; and, (ii) support banks in loan screening, disbursement and repayment monitoring.
- Financial services in rural areas should be expanded to include savings and establish links between savings and lending practices.

Seeds

- Testing of new cereal varieties should be done by GOA research stations, with links to producers.
- Grassroots seed producer organisations, based on the models of Vardablur and Gulagarak, in Lori should be initiated at district level in each *marz* to allow growers to share technical and market information.

Community Development

- Community development agencies should not be directly involved in lending activities as such, especially for loan-sizes already handled by existing financial institutions.
- Community development agency involvement in financial service delivery should be limited to support microfinance activities not normally handled by banks.
- The approach to the use of grant financing to reduce poverty through community development should be broadened. If communities wish to focus on employment generation, for example, a range of activities such as training and assistance to entrepreneurs in preparing business plans, accessing formal institutions, or investing remittances could be considered.

- The NWASP model of developing and supporting grassroots organisations such as the community action groups, water user associations and village associations, to assess people's priorities, plan, and implement activities should be used wherever possible.
- Assigning local NGOs the responsibility for working with projects to develop these grassroots organisations should be considered.

Information

- All projects should include communications programmes to provide target groups with information they need to understand project objectives and activities. Widespread information campaigns should start during project design and continue throughout implementation.

IFAD Supervision of IFAD loans

- There should be a monitoring system to analyse financial and human resource costs to IFAD of direct supervision.
- There should be explicit ways of sharing, within IFAD, the knowledge that it acquires through direct supervision.
- A system of checks and balances should be created whereby responsibility for design, supervision, monitoring, and approval processes are shared rather than vested in a single staff member as at present.

MAIN REPORT

I. INTRODUCTION

A. Context for the Evaluation

1. A Mission to undertake a Completion Evaluation (CE) of NWASP took place in March and April 2001¹ using the IFAD approach to evaluation as outlined in the approach paper in Appendix 1, this uses a Core Learning Partnership² (CLP) of stakeholders to set objectives and key questions for the CE and finalize the recommendations.

2. The **rationale** for undertaking a CE of NWASP is twofold. Firstly, the Programme Management Department of IFAD would like to analyze the experience of implementing this project as an experiment with direct supervision. Secondly, the project appears to offer potentially important lessons with respect to both water management and rural finance that could be useful for the design and implementation of other projects of IFAD and other donors in Armenia and other parts of the region.

3. Consequently, the CE focused on two levels: (i) the household one and (ii) the level of the institutions where arrangements and relationships were created between IFAD and the Government of Armenia for supervision and implementation follow/up. To guide the evaluation, a series of key questions were framed considering: (i) the relevance, efficiency, effectiveness and sustainability of the project activities; (ii) the impact of the project on the target population; and, (iii) the costs and benefits of **Direct Supervision** of this project by IFAD.

4. The **Objective** of the Completion Evaluation was to: (i) learn how and to what the extent the project achieved its overall objective to improve the living conditions of the target population; (ii) determine how direct supervision of NWASP by IFAD made an impact on NWASP and on IFAD; and, (iii) provide feedback on NWASP project outcomes that can help partners associated with the future ASP project to successfully achieve their objectives.

5. The CEM collected data using:

- (a) a participatory field evaluation by project beneficiaries and implementing agency staff in each of the project *marz* where 48 communities and more than 300 clients were interviewed along with leaders of grassroots organizations developed by the project and community leaders (a report on this activity is provided in Annex 1);
- (b) a repeat socio-economic survey of farmers interviewed in the baseline survey;
- (c) detailed interviews with key informants from the implementing agencies; and
- (d) a survey of participants in Supervision Missions. Participants in the evaluation and agency staff quantitatively assessed the effectiveness of the CEM³.

¹ The Completion Evaluation Mission (CEM) from 20 March to 10 April 2001 was led by Mr Ian Teese (Mission Leader/Evaluation Facilitator) working with PCU and IRP staff, and project beneficiaries, for full list of participant/evaluators see Annex 1. Ms Chase Palmeri, Senior Evaluation Officer, IFAD led the Start Up Mission from 26 February to 6 March 2000 and the mission to reach the Agreement at Completion. The assistance of Mr Alexander Kalantazian and Ms Izzabella Hovhannisian as interpreters was invaluable.

² Members of the Core Learning Partnership are: Mr. Zaven Gevorgyan - Minister, MOFA; Mr. Gagik Matevosyan (Project Coordinator, NWASP); Mr. Samvel Ghazaryan (Head, WMS, IRP); Mr. Stepan Gishyan (Managing Director, ACBA); Mr. Haik Minassian (President, SHEN); Mr Roger Benton (ATG); Mr Arkadi Markarian (Director SPSA); Mr. Vardan Movsisyan (Chairman, WUAU of Ararat); Mr. Klemens van de Sand (Assistant President, IFAD); Mr. Pietro Turilli (CPM, IFAD); and Ms Chase Palmeri (SEO, IFAD).

³ A summary of the responses is provided in Appendix 2 of the main report.

6. A Debriefing/Wrap-up seminar in Yerevan attended by high level Ministry officials¹ on 6 April presented reports on each component from farmer members of the Field Evaluation Teams (FET) and preliminary conclusions by the Mission Leader. The field evaluation in each *marz* concluded with a briefing for *marz* officials and, community and implementing agency leaders presented by farmers from the Evaluation Team.²

B. The Project Plan

7. The project was identified in 1994, approved in December 1997 (Loan Agreement AM - 455) and became effective in April 1998. It operates in three *marzer*, Aragatsotn, Lori and Shirak in the Northwest. Lori and Shirak were badly affected by a severe earthquake in 1988 and many project villages still show damage from the earthquake, which badly damaged buildings and irrigation structures. The project area runs from low plains adjoining the Ararat Valley through the extensive fertile plains of Shirak to high mountain areas with limited opportunities for irrigation and a greater emphasis on livestock production. The Project was designed to add necessary credit, WUA development and seed production and veterinary services to complement the irrigation rehabilitation activities of IRP.

Veterinary worker These were to be supported by a participatory community development component targeted at the poorest villages.

8. The total cost of the project was estimated to be USD 13.4 million of which USD 12.9 million are funded by IFAD and USD 0.5 million by the GOA. Co-financing of proposed technical assistance by other agencies (EU TACIS) did not materialise. As at 1 March 2001, approximately USD 12 million have been disbursed. Project implementation activities are expected to end in June 2001, approximately 18 months ahead of schedule. The project is one of 15 projects that were chosen by IFAD to be part of its pilot programme for direct supervision.

9. The Ministry of Food and Agriculture (MOFA) is the project executing agency and a Project Co-ordination Unit (PCU) based in Yerevan implements the project through six implementing agencies: 1) Water Management Services (WMS), section of IRP, 2) the Agricultural Cooperative Bank of Armenia (ACBA), 3) seed multiplication through the Armenian Technology Group (ATG), 4) seed testing and veterinary services through appropriate departments of MOFA and 5) SHEN, and 6) an Armenian community development non governmental organization (NGO).

C. Target Group

10. The target population is about 335 000, comprised largely of small farm households with an average farm size of 1.3 ha. Many of these households were part of the commune/state farm system before the privatisation of farming land. However, a number were allocated plots of land when displaced from industrial enterprises that closed down after Armenia became a separate republic. Benefits were expected to reach a total of about 9 500 households or about 13% of the total. Activities in the community development component were to be directed to the poorer villages. Regarding the Credit component, the target was to assist women to take up to 30% of loans.

D. Project Objectives

11. The goal of NAWASP is 'to improve the living conditions of the target population in terms of higher levels of production, income and food security'.

12. The implementation strategy was based on: (i) promoting the establishment of grassroots representative organizations (WUA, VA, civic action groups (CAG) and seed farmer associations as pre-

¹ Attendees are listed in the report of the Yerevan seminar, 6 April 2001, presented in Appendix 2 of the main report .

² A list of attendees is provided in the report of the field evaluation – Annex 1.

conditions for project support; (ii) using existing competent government and NGO agencies to implement the activities; (iii) coordinating activities between components and with other national programmes such as IRP; (iv) selecting participating villages on the basis of specific criteria; and, (v) completing the activities in a short period.

13. To achieve these objectives, the project has four components:

- (i) *Irrigation Rehabilitation*, which includes: rehabilitation of irrigation water supply and control structures from the main supply channels to the supply channels in the irrigated land by the Project Implementation Unit (PIU) of the IRP; support to the development and implementation of WUAs to improve the management; and operations and maintenance (O&M) of the irrigation systems below the secondary channels with transfer of responsibility for the tertiary channels to the WUAs. This activity is supported by the WMS of IRP.
- (ii) *Rural Credit*, which was designed to support ACBA increase its lending services to farmers in the three *marz*. Funding was provided to assist ACBA develop VAs as shareholders in ACBA and to provide group guarantees for borrowers at village level, provide loan funds for on-lending, provide funds for ACBA to build and equip branch offices in the three *marz*. Initially the loans to farmers were to be short term for purchase of necessary operating inputs required for improving enterprise operations such as seed, fertilizer, livestock inputs, etc. The loans were to be made on a commercial basis.
- (iii) *Agricultural and Livestock Development*, to address two main constraints to on-farm productivity: sourcing good quality seed and providing veterinary services for livestock production. Seed production has been assisted through upgrading the facilities of the central and *marz* level seed testing laboratories operated by the Department of Agricultural Development of MOFA, and supporting ATG in its work to sustain the production and distribution of winter wheat and alfalfa seed by small private farmers through procuring and multiplying elite seed, evaluating seed varieties, providing an inputs and seed credit package, monitor seed production fields and help organize cleaning, bagging and seed treatment. ATG should also



A veterinary lab serves veterinarians who bring livestock samples to be tested

assist in development of a Seed Producer's Association and National Seed Council to promote the use of quality seed. Veterinary laboratories in Yerevan and the *marz* operated by the State Veterinary Inspection Agency of MOFA have been refurbished. The activities to assist 70 private veterinarians develop practices has not been achieved because of delays in finalizing bylaws controlling them.

- (iv) *Community Development*, to assist the poorest villages strengthen their capacities to identify, plan and implement their own priority activities using participatory techniques. SHEN facilitated the implementation of micro-activities identified by the community.

14. During the project, some changes were made to project activities including:
- (i) *Economic Development Projects.* Following requests from communities for employment creating activities, funds were reallocated from social development projects to group and individual economic development projects to create employment and other social benefits. SHEN also employed specialist business advisory staff to assist their clients with their businesses.
 - (ii) *Providing Additional Capital for ACBA.* Some IFAD loan funds were converted into a grant to increase ACBA's capital base.
 - (iii) *Changing Loan Conditions.* As ACBA has developed its lending systems, it has increased the amounts and repayment periods for its loans.
 - (iv) *Private Veterinarians.* This activity could not be implemented due to GOA delays in implementing regulations controlling their activities.

E. Expected Effects and Assumptions

Benefits

15. An estimated 1 270 farms on light soils, 3 076 farms on chernozem soils and 1 760 farms with rehabilitated irrigation supply systems would also use the recommended improved techniques, use inputs and finance part of their production costs through credit at full development. A further 3 400 farms would benefit from irrigation improvements but were not expected to use credit.

16. Incremental production increases from 50% to 100% were expected in most of the major agricultural activities with incremental production of 4 657 t of wheat, 3 713 t of potatoes, 6 271 t of milk and 550 t of stock liveweight. Part of this additional production was expected to be home consumed with the balance sold in the market.

17. Incremental benefit. Cost ratios were expected to range from 1.97 for light soil farms to 2.86 for irrigation farms. Net incomes were expected to increase to USD 680 per household for the light soil farms to USD1 865 for irrigated farms.

18. Women. The Project was designed to benefit women in their roles as producers and community members. 30% of ACBA borrowers were to be women and Community Development activities specifically would provide women with the possibility to identify priorities through the use of PRA techniques; activities would be mainly focused on constraints of particular importance to women, such as drinking water supply, health, education and income generation.

19. Environmental Impact. The Project was expected to have minimal impact on the environment as the irrigation rehabilitation work was to be directed to the water supply system so that it could deliver its design capacity without development of new irrigation areas. Increased cropping intensities would be offset by planting of leguminous crops and increased crop residuals would be incorporated into the soil. Fertilizer applications would increase from the very low current levels, helping to maintain soil fertility and would not be excessive. A small increase in the use of crop protection chemicals would be expected. Applications are likely to use backpack sprayers or tractor-drawn sprayers. The use of seed of improved varieties would not lead to substantially higher input requirements than for existing varieties. Increases in sheep and cattle numbers were not expected to have a negative impact. The Project was classified in Category C in an Environmental Screening and Scoping note.

20. Assumptions made to establish the project goal were: (i) Legislation would establish a legal base for the WUA development; (ii) No abrupt macro-economic and/or political changes; (iii) Continued market economy framework; and, (iv) Continued access to imports and maintenance of informal trade corridors across Armenia and its neighbours. Legislation for WUA is still not in place. But the other assumptions have largely held. An underlying assumption was that the implementing agencies had, or could quickly

develop, the capability to undertake their work. Another underlying assumption was that marketing would not be an issue. This proved incorrect, yet in the implementation of this project and the design of the new Agricultural Services Project focus continues to be put on production rather than marketing. Little attention has been given to fundamental issues of whether the producers they are designed to support can be cost competitive (in the light of the need to pay for water at current rates) or to actual consumer demand levels that affect marketing of increased output.

II. IMPLEMENTATION CONTEXT

21. The population of Armenia is estimated at 3.5 million¹. There has been significant emigration as well as movements within Armenia as families have attempted to minimize the impacts of the readjustments since the founding of the independent ROA. Population growth rates have slowed from 1.4% to 0.25% per year, largely due to emigration which is probably greater than official records show. An estimated 5 million Armenians live outside Armenia and provide substantial support to the country through direct transfers and trade links.

22. The Armenian economy shrank by more than 70% after the disintegration of the Soviet Union in the early 1990's. A move to world parity pricing and loss of preferential markets within the Soviet Union created a drastic economic decline in 1990-93. Since 1994, GOA has implemented a programme of macroeconomic stabilization and structural reforms. These allowed hyperinflation to be brought under control. Growth in GDP has been restricted by 1998 Russian crisis and droughts in 1998 and 2000. Projected economic growth for 1999-2001 was 7%, following a slackening to 3.3% in 1998.

23. Current account deficits have been declining over the 1990's driven by substantial increases in private transfers and workers' remittances. Increased bilateral funding has offset reduced financing from multilateral financing institutions. Foreign investment has been increasing. In 1997, exports were reduced to 20% of GDP while imports were 59% of GDP.

24. Inflation has been reduced from hyperinflation levels in the mid 1990's to 2% in 1999 with the objective of GOA to maintain inflation below 5%. Interest rates have declined since inflation has been reduced, but are still relatively high (18% for ACBA USD loans, 30% for ARD loans). Exchange rates have remained in the ARD 500-545:USD 1 range for the past three years. These parameters are better than projected at appraisal.

25. The main focus of GOA strategies is on economic growth, but GOA is aware that economic growth may not reduce extreme poverty. The PRSP process now underway is expected to provide a clear picture of GOA policy with respect to poverty reduction in future. Up to now, because of agriculture's present dominant role in the economy, agricultural development and growth are the main instruments of rural poverty alleviation. This is supplemented by the promotion of wage employment and self-employment through the development of micro-enterprises and small/medium enterprises (SME) supported by credit facilities. The revised NWASP community development approach that includes economic development activities reflects these objectives and attempts to service these needs.

26. The current FAO funded agriculture sector strategy study, which should provide a strategic framework for development of future GOA agricultural policy in the short and long terms, should address at least partially, the apparent uncertainty of Armenian agriculture's future direction. A key issue will be the balance between food security, particularly in the grain sector, and the production of crops and products, such as grapes and dried stone fruit, where Armenia has a demonstrated comparative advantage.

¹ A census is scheduled for 2001.

III. PROJECT PERFORMANCE AND IMPACT

27. The following analysis of the four components and the PCU activities takes into account activities up to 30 March 2001 as presented in project reports and assessed by the field evaluation teams (FETS). For this, discussions were held with a range of informants in 48 villages across the project area during the field evaluation in late March. Some additional data has been collated from project records. As part of this assessment, the FETs made subjective assessments of the key elements of project activities and the grassroots organisations set up to support them. A summary is provided in Table 1 where a higher ranking (0 = lowest, 3= highest) indicates a more successful outcome and highlights different levels of impact between the components and their relationship with the performance of the grassroots organisations developed and supported by the Project. The reasons for these differences are discussed in the next sections.

Table 1: Summary of Evaluation Team Assessments of Project Activities in 32 Project Communities

<i>Marz</i>	Assessment of Village Activities					Assessment of Grassroots Organizations		
	Impact	Relevance	Efficiency.	Effective.	Sustain.	Relevance	Effective.	Sustain.
Community Dev.								
Shirak	2.7	2.7	2.7	2.5	2.7	3.0	2.7	2.7
Lori	2.9	2.3	2.9	2.9	3.0	2.6	2.1	2.0
Credit								
Shirak	1.7	2.4	1.9	2.0	1.9	2.1	1.5	1.7
Lori	2.6	1.8	2.1	2.6	2.0	2.4	2.0	2.1
Seed								
Shirak	2.0	3.0	2.5	2.1	2.1	n.o.	n.o.	n.o.
Lori	2.4	1.9	2.5	2.4	2.2	n.o.	n.o.	n.o.
Irrigation								
Shirak	2.6	2.6	2.6	2.5	2.7	2.8	2.3	2.6
Lori	2.9	2.6	3	2.8	2.6	2.9	2.3	2.8

- Note:
1. Rankings based on 0 = no benefit, 1 = some benefit, 2= good benefit, 3 = very good benefit.
 2. Activities were assessed for Impact on project beneficiaries, relevance of the activities to the communities, efficiency of implementation, effectiveness in achieving project targets and sustainability of the activity after the Project is completed. Grassroots organizations were assessed for relevance, efficiency and sustainability.
 3. No organization, shown by n.o., highlights lack of involvement by SPSA at farmer level.

28. As the evaluation took place well before the planned completion date, there may not have been enough time for activities to reach their planned objectives and targets. These are not in physical construction or loan disbursement but rather in development of the grassroots organizations put in place to support project implementation and to strengthen community capacity. The repeat of the baseline survey undertaken in April 2001 is unlikely to show the full impact of the project activities. IFAD staff have suggested that NWASP could be used as a case study monitoring project impact after planned activities are completed, as there will be 18 months before the original planned closing date of the Project. Monitoring and evaluation activities could be funded through the new ASP.

A. Community Development

29. SHEN has implemented this component. The initial programme was to: identify the poorest villages in each *marz* using agreed criteria; facilitate the development of CAG in the selected villages; through the CAGs identify the priority social development activities which could be undertaken within a USD 10 000 project contribution; assist in supervising construction activities and providing workers paid by the construction contractor; arrange ongoing operations and maintenance (O&M) activities and necessary funds and supervise operations. The CAGs were encouraged to also identify other social development projects, which could be put forward to other funding organizations. Table 2 summarizes the activities.

30. SHEN, with supervision mission consultants, developed a set of five indicators: irrigated area per person; % arable land not cultivated; % of population benefiting from Paros (ROA social security), being single mothers or pensioners; drinking water situation; school conditions; status of roads. These were applied in varying ways and with additional indicators across the three *marz*.

Table 2: SHEN Activities by Marz (to end of March 2001)

	Aragatsotn	Lori	Shirak	Total
Social Development Projects				
Water supply rehabilitation	15	15	10	40
Rehabilitation of schools	1	1	6	8
Rehabilitation of road	1	1		2
Rehabilitation of clinic		1	1	2
Rehabilitation of irrigation/ drainage systems	1		2	3
All Social Development Projects	18	18	19	55
Grants for Economic Development Projects	2*	2**	2***	6
Economic Development Loans				
Flour milling		1	1	2
Fish production		1		1
Cattle breeding, milk production	3	1	1	5
Pig breeding		1	1	2
Sheep/goat breeding	2		1	3
Beekeeping		2	1	3
Cheese making	1			3
Stone cutting factory			1	
Total	6	6	7	19
Project Total	24	24	26	74

* In Aragatsotn, machinery station rehabilitation project and wool production.

** In Lori, a solar fruit drier and wool production.

*** In Shirak, repairs to a cattle farm and wool production.

(1) Implementation Experience

31. Social Development Projects. Most of the activities were to rehabilitate or provide piped drinking water systems to the villages. Other activities included rehabilitating village schools, health centres and roads, and funding the repairs for equipment in a village machinery station to provide improved machinery services to village farmers. Sixty-one social development projects have been completed. In some villages, funding was also secured from other activities such as World Food Programme (WFP), Food For Work (FFW) and also from NGOs associated with SHEN.



32. Darpas community in Lori had undertaken an ambitious programme to rehabilitate a floodway to protect 40% of the community from flooding but which could be used also for irrigation water supply. The CAG responsibilities had been taken over by WUA (both organizations had the same leader) to ensure that the structure was maintained.

One of the seven pumps installed by SHEN

33. Economic Development Projects. During the community consultation process, some villages identified as a high priority job creation through the support to economic development activities. After consideration by Supervision Missions, SHEN was asked to assist villages in identifying and developing suitable employment that would generate projects. The initial three projects with groups of farmers were identified by the villages and funded by grants. However it became evident that grants were not appropriate or large enough for projects to provide 5-6 extra jobs within a village.

34. The Project then introduced a loan scheme to support economic development projects with funding for larger amounts, an extended repayment period and reduced requirements for collateral. The decision making process did not include the existing VAs responsible for undertaking the first assessment of loan applications to ACBA. The conditions for participating economic development projects included: (i) owners could draw no more than three times the expenditure on labour; (ii) the business should be registered and have an accountant; (iii) the business entities have to pay their tax obligations to GOA; and, (iv) employees had to earn at least USD 25 per month. In addition, activities are being targeted so that may have longer term benefits such as introducing carpet wool sheep into a village which has surplus labour that could convert the wool into carpets suitable for the export market. SHEN has appointed business development support staff to each *marz* to assist potential borrowers to develop business plans and monitor them on an ongoing basis. Table 1 summarises the types of projects by *marz*.

(2) Performance

35. The FETs found that the social and economic development projects had been well implemented. Villagers appreciated the opportunity to improve some of their rundown social infrastructure. There were some complaints that the USD 10 000 limit had prevented higher priority activities from being undertaken, but this was not a major constraint. Based on the SHEN monitoring reports, most activities were successfully implemented, although a small number required additional inputs from SHEN monitoring staff to ensure that work was completed satisfactorily.

36. The selection process for communities to receive assistance was reported to have worked well. In one community, Mets Parni in Lori, senior community members were unclear as to why they had not been invited to participate, the community members thought it was because a community meeting had not been able to decide on the need for an (expensive) extended irrigation system or rehabilitate the drinking water supply. SHEN officials in Lori indicated that the community had not been included in the list of poorest

villages. The FET believed that, by the standards they were using to assess community conditions, it appeared to be a poor community.

37. Civic Action Groups. Table 3 sets out the numbers of CAGs, which have undertaken further activities. This shows that about half the CAGs have continued to seek funding for further activities. SHEN records do not specifically indicate the level or proportions of water fees recovered but the FETs found that many villages had water fees schemes in place and were recovering a proportion of ongoing O&M costs. A more difficult area is with school buildings where it was not clear if all CAGs had been able to arrange ongoing funding for maintenance. In some cases, senior members of the community had taken it as their own responsibility to arrange this funding.

Table 3: Further Activities of CAGs by Marz (to end of 03/2001)

	Aragatsotn	Lori	Shirak	Total
Villages with CAG social development activities	18	18	19	55
Villages with further CAG activities	9	7	12	28

Source: SHEN monitoring records

(3) Impact of Activities

38. SHEN has effectively implemented the community development component using a combination of community sensitization, motivation and provision of resources to allow community to meet their objectives. SHEN and the Project have responded to community (and government) requests to modify the project inputs and planned activities to meet changing objectives.

39. Social Development Projects. The field evaluation indicated that the activities had generally assisted a cross-section of the village community. Priority projects were addressed in the target villages. However in Maralik, Shirak, a rehabilitated kindergarten is not being fully utilized because families cannot afford the monthly attendance fees. In Karmraven, Shirak, the civil action group rehabilitated the school building which has enabled the school to increase from four to eight classes, attract new teachers and the number of 'good' students has increased from 4 to 12.



A worker rebuilds a school as part of a community development project

40. About half of the CAGs had initiated further activities. This implies that the communities must have seen the activities as beneficial. The FETs reported that communities believed that the most successful outcomes were achieved where social development activities were combined with other project activities.

41. Economic Development Projects. Some communities see these projects as important as they provide jobs and may generate profits that can be used for social development projects later. Only one of the first three projects was found financially viable (the fruit drier). SHEN has strengthened its capabilities to assess projects by employing three business counsellors, two of whom have experience running their own businesses.

42. An area of concern is what exactly is the role of the implementing agency in supporting the development of micro/small enterprises. SHEN is effectively acting as: financier/banker, business adviser

and monitoring agency. The Project has put much effort into developing a sound commercial credit programme using group responsibility through the ACBA activities. It is disconcerting to see an activity that does not follow the basic project credit objectives (sustainable self-funding lending programmes) and the economic development activities which provide mixed messages to other people in the communities who wish to borrow individually but cannot gain approval for their business plan from the VAC and/or do not have enough collateral.

43. SHEN has provided funding (both grant and loan) to group economic development activities. These include fruit drying activities both within and outside NWASP and also supporting the rehabilitation and development of machinery hire centres in project communities. Because of difficulties with arranging/combining shared collateral and facilitating group operations, the inputs of an outside organization such as SHEN could be appropriate where there will be direct flow on benefits to the community from improved services. There is little justification for SHEN to support individual farmers so that they may develop large livestock enterprises where there are not economies of scale. Possible social or economic advantages that could be obtained from these activities should be offset by clearly identified grants, provided in conjunction with the CAG.

44. Civic Action Groups. The formation of CAGs stimulated the communities to have more interest in improving their social conditions. The motivation and management developments achieved by SHEN are skills which will enhance future activities in the communities. FETs reported that CAGs and community development activities were stronger in communities where other project activities also occurred. The community development activities have provided an excellent model for implementation of activities of the Armenian Social Infrastructure Fund (ASIF), funded by the World Bank. While the ASIF can fund much larger community projects, the principle of community involvement in the planning, implementation and ongoing responsibility for operations of the infrastructure will be critical for sustainability.

B. Irrigation Rehabilitation and Water Management

(4) Implementation Experience

45. Irrigation Rehabilitation. This component was built on the experience of the initial Irrigation Rehabilitation Project (IRP), co-funded by IFAD. In addition to providing funds to rehabilitate gravity fed irrigation schemes, funding and staff were provided to support development of the WUAs. 322 km of canals, pipes and associated control structures have been installed allowing 19,688 ha of previously irrigated land to be brought back into full production. Implementation of this component has proceeded much faster than originally envisaged.

46. Local contractors selected through competitive tendering have implemented design and construction work in all but one village. In this case, Chochkan in Lori, the village council gained approval from IFAD and the Project to undertake the construction of a 27 km pipeline under force account conditions using unpaid village labour and equipment for much of the work. In the earlier IRP, two other communities also undertook construction activities but did not achieve satisfactory standards.



Workers building a water supply channel

47. Water User Associations. 58 WUAs have been formed in villages as irrigation development work has proceeded. Training courses have been developed and implemented in group activities, accounting,

water management and other skill areas needed for the successful operation of irrigation schemes. Three federations/unions of WUAs have been formed to provide a link between users of common supply channels and also a more united voice to work with government and also to negotiate with water supply companies, that control water supplies and require payment.

48. There has been under-expenditure on training of WUAs and study tours to create awareness of the principles and practice of the WUAs. Based on the latest budget data, expenditure has been half of what was originally planned.

(5) Performance

49. Irrigation Rehabilitation. To date the project has rehabilitated supply channels and structures to service 19,668 ha of irrigated land in 59 villages compared to a target in the Appraisal document of 6,000 ha in 50 villages. Expenditure to date (01/04/2001) has been USD5 174 000 compared to a planned USD6 279 529. The differences suggests that the appraisal greatly overestimated the unit costs for rehabilitation making performance to date appear much better. Unit costs of imported materials such as pipes have increased, particularly in the past two years.

50. The FETs found that most communities were satisfied with the work undertaken which reflects the strong inputs by the IRP and PCU advisers in supervising contracted design and construction activities. Because rehabilitation was directed to supply and control structures, there is no indication that poorer farmers were disadvantaged as land had been allocated in the early 1990's and there has not been time for a free land market to develop allowing commercial farmers to purchase land with better irrigation potential.

51. FETs made several comments about areas of land, which had been provided with improved water supplies from the rehabilitated systems being under-documented. One example was in Avershokh in Lori, where the FET reported that the irrigated areas had increased from 30 ha to 90 ha but project records indicate an irrigated area of 189 ha. FETs reported no situations where the communities were dissatisfied with the implementation or construction process.

52. The construction by the Chochkan (Lori) community of a 27-km water supply system to bring water into their community has been a valuable example for the Project. The design cost to build the system by contractor was USD 1 million to supply 400 ha of irrigated lands, which meant it was impractical and not cost-effective compared to alternative rehabilitation projects. Because of the enthusiasm of the community, particularly the community head, IFAD and the Project agreed to construction of the scheme under force account conditions with the project funding pipes, fuel and other essential items while the community provided the equipment and labour for construction. Project staff closely supervised construction. Other GOA agencies also closely monitored construction¹ creating a large workload for project staff to ensure construction documentation was adequate. The leader of the WUA in Ardjt in Lori was also very positive about the prospect of undertaking irrigation rehabilitation/development work.

53. The dry season in 2000 greatly reduced the volumes of water available for irrigation and subsequently the effectiveness of the rehabilitated irrigation systems in increasing the productivity of crops. Several communities reported that, even though the water supply was less, they were still able to irrigate crops up to four times rather than the normal two in a typical irrigation season. IRP staff indicated that some communities did not make full use of their limited water resources, as they did not start irrigating early enough when water was still available. This highlights the need to change technical and cultural practices as much as to improve the irrigation system. This was reinforced by feedback from the FETs meeting with farmers who had achieved above average yields in a drought year through good management practices.

¹ Monitoring included placing time lapse cameras along the pipeline route to photograph construction activities.

54. The dry 2000 season highlighted problems of water allocation between communities by the water supply companies. The first communities on the supply system were allowing limited amounts of water to communities further down the supply systems. The FETs indicated that this shortage had highlighted the need for water measurement out of the main supply canals and at different points through the water distribution system.¹ Water measurement is a fundamental activity in increasing the level of water charge recoveries and also in providing an economic reason for communities to continue their O&M activities.

55. Water User Associations. WUAs have started operations in all project communities with irrigation rehabilitation activities. Following the early successes of WUAs, GOA stipulated that WUAs should be formed in all irrigation areas in addition to those serviced by IRP and NWASP. The FETs observed that all WUAs were operating to varying extents collecting up to 100% of water charges. Because of the difficult season, some WUAs were taking payment in labour.

56. An issue raised in several communities was confusion in the role and responsibilities of the WUA. Some farmers indicated they did not differentiate between the WUA and the village council or leader². As these farmers saw these groups as an extension of the central government they were less likely to support WUA activities and pay water charges.

(6) Impact of Activities

57. Irrigation Rehabilitation. The FETs provided anecdotal information that crop growing patterns and yields were changing with the (2000 excepted) more reliable water supplies. Caution needs to be taken in interpreting changes in cropping patterns as they may reflect changing government policy on grain self-sufficiency and market prices as much as changes induced by improved water supplies. Data collated by the SAR³ indicates that the area for irrigated grain production increased by 50% from 1988 to 1998. The SAR also indicated that less than 25% of farmers were major cash crop producers with most production being used for subsistence. This greatly restricts the funds available for paying water charges.

58. The SAR indicated that in the areas studied, there had been an increase of 8 % in the zones that could be irrigated. A substantial impact of the project has been to increase the value of irrigated land for leasing. This provides an alternative land use with increasing returns to the landowner. It also allows commercial farmers to obtain more irrigated land with a reliable water supply that can be used to increase the scale of their business⁴.

59. A major impact of this component should be to decrease the amount of water drawn from the main supply channels to irrigate a given area of land as water losses should be reduced (FETs estimate by up to 40%). This will allow a larger area to be irrigated and lower the amount spent on water charges. The SAR provides an example in Mkchian in the Ararat Valley where rehabilitation of the system reduced the amount of water charged for from 15 000 cubic metres (m³) to 4 500 m³ on the same crops. With a price of ARD3.9/m³, this provided a saving of ARD40 950/ha. 46% of WUA members paid their water charges in the rehabilitated area while only 11% paid in the unrehabilitated area.

¹ The Water Management Service (WMS) of IRP is planning to install Armenian made electronic water measuring devices across all of the NWASP system during the year 2001. This is a major step as only simple depth type measuring systems are used at present.

² Under GOA regulations, the village council has no official roles or responsibilities. WUAs have defined roles and responsibilities.

³ The 1999 study³ on WUAs – the Social Assessment Report (SAR) prepared for the new Irrigation Development Project (IDP) highlighted several areas where effectiveness of the WUA activities were assessed.

⁴ A fundamental issue in Armenian crop production is how innovative commercial farmers can gain economies of scale in the use of their equipment and skills. For example, a potato and wheat seed producer in Hatsik, Georg Georvanin and his family, indicated that they could grow up to 100 ha of potatoes and wheat if there were suitable markets. Unlike many other developing countries, Armenian farmers already have access to machinery to allow them to manage much larger areas of crop. This machinery resource is steadily depreciating.

60. Based on the experience of Chochkan and other communities, communities that have a close involvement in the planning and implementation of their water supply system through their WUA will have a greater commitment to O&M activities and ensuring the system continues to meet their needs.

61. Water User Associations. WUAs have started operations in all project communities with irrigation rehabilitation activities. Following the early successes of the WUA, GOA stipulated that WUA should be formed in all irrigation areas in addition to those serviced by IRP and NWASP. These new WUAs were not provided with any training or technical support. A 1998 study¹ of WUAs formed under IRP (using the same methodologies as NWASP) noted that those WUAs developed under the projects were: smaller and more manageable in organizational terms; (b) more participatory; (c) have a greater organizational capacity; (d) display more transparency; and, (e) are more motivated to engage in O&M activities.

62. FETs and other project reports have indicated that water users are not sure if their water charges are being used for paying for water supplies and system O&M.

C. Rural Credit

(1) Implementation Experience

63. ACBA. The formal credit component of the Project has been implemented through ACBA, the only operating co-operative bank in Armenia. The ACBA has been supported through a number of international agencies² to develop its capital base and capacity to lend to the rural sector. ACBA is a collateral lender, initially using cars, machinery, gold and jewellery as security, but now accepts livestock and, where land has been passportised (titles issued), land. However, ACBA also considers the business plans of the borrowers.

64. Loan periods started as seasonal finance for 8-10 months and now have been extended to 24 months for livestock loans. ACBA plans to extend loan terms further to suit the needs of borrowers but takes the view that loan terms need to be tailored to suit the loan use. This means that the loan period is not necessarily the same for each borrower. Early in the Project interest rates were over 35% for loans in drams, but loans in USD are now priced under 20% with a 4% interest rate reduction, if the VAC ensures all loans are up to date. Penalty interest rates apply to overdue loans.



65. Loans start from USD 100 and the upper limit has increased steadily to be now USD 5 000. Outside of project activities, agricultural loans of up to USD 40 000 have been provided. Clients can increase the size of the loans as required. Most initial borrowing was for seasonal credit to purchase crop inputs of seed, and fertilizer but now some farmers are borrowing for livestock and equipment purchases and major purchases of imported certified potato seed.

Farmer spreading ammonium nitrate, a fertiliser, on his beets, potatoes, corn, cabbage and grain

¹ Social Assessment Report, 1999 by E. Kajoyan and H. Perret, as part of the preparation of the Irrigation Development Project. This report used data from the Social Assessment Surveys carried out in 1998 by the Armenian Independent Sociological Centre (Sociometr) and a further study in 1998 – Armenia's Private Agriculture, 1998, undertaken as part of the poverty and agricultural situation in Armenia.

² ACBA co-operates closely and/or has credit lines with Credit Agricole, the World Bank, IFAD and KfW of Germany.

66. In 2000, 2 314 loans totalling USD1 635 637 were disbursed to clients in project communities. ACBA activities during the Project are set out in Table 4. Previous to the project ACBA did not operate in the three project *marzer*. Loan repayment performance has been excellent in two *marzer* with close to 100% repayment of loans.

Table 4: ACBA loans disbursements 1998 - 2000

	Villages	Loans	Loan Performance ¹		Loans Disbursed (USD)
			Repaid	Outstanding	
1998	93	2 276	495	1 781	1 877 966
1999	140	1 926	2 112	1 595	1 344 204
2000	186	2 314	1 661	2 248	1 635 637

1. Loan performance is based on loan accounts at the end of the financial year. Outstanding loans include loans that were not due for repayment until the following year.

Source: ACBA/PCU records

67. During the Project, ACBA has been given support to establish branch offices in the three-project *marz*. In Shirak, a full banking licence has not been issued so that loan arrangements currently have to be completed in Yerevan with borrowers often having to visit Yerevan to complete their documentation.

68. Part of the IFAD loan was also used as a grant to ACBA to increase the capital of the bank. This increased its capabilities to provide loans to farmer and small business clients. Due to the excellent repayment record, ACBA did not require all the funds allocated by the Project to support farmer loans. It was agreed that funds from NWASP could be used to start lending operations in Tavush and Kotayk, which will be included in the following ASP starting in mid 2001. To date, loans for about USD 156 000 have been made to more than 200 farmers in these regions.

69. ACBA is also working with other agencies to deliver credit to rural areas. It has a loan facility from KfW, the German technical co-operation agency to implement the Micro and Small Business Financing Programme to support development of agro-processing and other forms of small, medium enterprises (SME).

70. Village Associations. Agricultural Co-operative Village Associations (VA) own ACBA with more than 12 000 farmer – members organized into VAs. Out of 97 561 farmers, there are 5 225 VA members in Project villages (6%). At *marz* level, these VAs combine to form a regional union which elects representatives for the general assembly of ACBA. All potential borrowers must belong to a VA, which then selects a committee of seven – the village association committee (VAC). VAs can range from 5-6 members up to more than 60, depending on the demand for loans in the village and the period the loan programme has been active in the village. The VA takes joint responsibility for all loans made through ACBA that have been approved by the VAC. If one borrower does not repay a loan, no further loans will be made to the community until the loan has been repaid. ACBA staff-run introductory and training courses for the VA and VACs to prepare them for these assessment and monitoring activities.

71. The VAC assesses loan applications by an agreed scoring system. If a proposal is rated successful, it is then passed on to ACBA lending officers for assessment. Approvals can be made at *marz* level up to a certain amount but larger loans are referred to Yerevan head office for approval. In more than 97% of cases, rejection of a loan proposal by the VAC ends the application process. Occasionally, ACBA may consider a proposal rejected by the VAC but ACBA, not the VAC, takes the repayment risk.

(2) Performance

72. ACBA. ACBA was awarded an international award for its banking practices and has obtained unsecured credit lines from Credit Agricole in France to support its lending programme.

73. As shown in Table 5, ACBA has increased the number of farmers being supported but the loan portfolio has not grown. This is due to 1) problems with loan recoveries in Shirak and 2) limits placed on lending by collateral requirements and ceilings on individual loan amounts. Loan recovery performance has been good despite the difficult seasonal conditions of 2000, with close to 100% recovery in two *marz*. The FETs reported some problems with loan repayments, mostly in villages in Shirak (see para 79). Many of the problems were being managed within the VACs with VA members loaning short term funds to the member with problems, so that the ACBA credit could be repaid and lending to the village continued at lower interest rates. The defaulting member then pays the VAC over an agreed period, mostly without paying additional interest.

74. The FETs reported complaints from ACBA clients on the terms of their loans: interest rates, length of loans and collateral required. These complaints are common in any credit programme. ACBA has taken steps to increase the terms of loans, where appropriate for, say, livestock purchases. Average loan terms have been extended from 7-8 months in 1996 to 13-14 months in 2000 with loans for livestock extended to 24 months. Interest rates should be taken in the context of the costs and loan periods for alternative sources of funds with Lombard type loans secured by gold costing 2% per month.

75. Collateral has become the major issue with ACBA focusing on using readily available (and liquidated) items such as cars and machinery. There were a range of responses from clients on the values placed on their collateral with some complaining that ACBA was placing lower values on the same collateral each year while others were pleased that ACBA had accepted the same collateral for succeeding loans without changing the collateral values or requiring notarization. Lending using livestock for collateral commenced in 2000 with complaints from some clients that ACBA was placing a low value on the livestock. This conservative approach from ACBA is understandable given the volatility of stock values due to seasonal variation and market conditions.

76. Land has been used for security where titles were available. Again the issue of the value of the land, given that there is little experience in land transactions. However the well-developed market for leased land indicates that farmers are quickly developing skills in valuing land, particularly where it can be irrigated and has a good water supply. Once all farmers have titles for their land and as administrative procedures will be simplified and less costly, availability of suitable collateral should not be a major issue. Several FET members and also villages queried the reluctance of ACBA to repossess items given as collateral when there were defaults in payment.

77. Several communities advised FETs that the costs of notarizing documents for collateral were significant. ACBA has already taken steps to reduce these costs, but for small loans, they are still relatively high.

78. Loan repayment performance is illustrated by the overdue loan summary presented in Table 5. Most of the outstanding debts are in Shirak, highlighting the problems experienced there in 1999 (see next par. 79). 17 were in Lori and one in Aragatsotn. A concerning feature of these overdue loans is that they are not being reduced to any significant degree. Another below average production year in Shirak will accentuate the problem.

Table 5: Overdue Loans – ACBA Lending Programme

Month	Number of overdue loan ¹	Value of overdue loans (USD)
December 1998	0	0
June 1999	3	3 756
December 1999	164	139 905
June 2000	232	249 293
December 2000	231	245 493
March 2001	232	256 413

Source: ACBA/PCU records

79. Performance of the Credit component has been severely affected in Shirak by irregularities of (now former) ACBA staff and the drought in 2000, which made it more difficult for farmers to repay outstanding loans¹. Loans there fell from 1 185 in 1998 to only 389 in 2000 with 17 out of 49 participating villages not being loaned funds due to loans remaining outstanding. FETs met with some farmers who claimed to have had difficulties created by ACBA staff². ACBA moved firmly to replace the staff in Shirak, change VAC membership and their leaders where appropriate, and upgrade ACBA's credit management systems. However the incidents have created a loss of faith in the VAC system as whole villages are being penalized for these actions, largely outside of the VAC's control. ACBA has attempted to restart lending in several of the villages affected by the issues without success (possibly due to seasonal conditions).

80. Other issues raised with the FETs included the size of the VAs and the impact of non-payment by one member on a large number of VA members. Some communities suggested that there should be subgroups of the VA, which would take responsibility for debts up to a certain level. Other informants proposed that loan periods should be extended when extreme climatic conditions reduced crop production.³ Some communities requested more flexibility in the timing of ACBA lending as the current programme could force some farmers to buy more expensive inputs in spring, rather than in winter, and also to sell off stock in autumn before they were ready or market prices had peaked.

81. A significant weakness in the Credit programme could be that it does not undertake specific activities to mobilize savings deposits in ACBA^{4/5}. This has made savings deposits more difficult for villagers as deposits can only be made at *marz* level ACBA branches. Given that VACs have shown that villages can mobilize funds to cover defaulting borrowers, the Project may have missed an opportunity to mobilize funds through the VAs, which would increase ACBA's capability to provide more loans.

82. The project now has three credit activities: ACBA loans, economic development loans through SHEN and, seed and fertilizer credits through ATG for seed multiplication. In addition there are other credit activities through USAID agricultural programmes in the same *marz* including seed and input credits and

¹ In some villages in Shirak, farmers have routinely gone to Russia to earn additional income for part or all of the year. Some of the problem debtors have gone to Russia for uncertain reasons.

² Two farmers in Shirak claim to have been induced by ACBA staff to take short-term loans to repay ACBA loans, which were then increased to cover the additional funds required to repay the short term loan. In another case, a farmer who could not repay a loan (after two earlier successful loans) for seasonal and family reasons was approached by bank officials to buy his collateral land at a small percentage of its collateral value.

³ Crop insurance has been suggested as a way to manage varying seasonal condition. This can be difficult to implement unless all farmers participate. It also creates moral issues in asking poor farmers with inadequate incomes to contribute.

⁴ Bank saving in Armenia has an unfortunate record from the early 1990's when many banks collapsed and also savings were devalued significantly through hyperinflation. Many Armenians prefer to keep their savings at home. However it is planned to use a microcredit organisation in the ASP to develop microcredit groups to start to mobilize savings.

⁵ ACBA has been able to attract some deposits with USD 3.3 million being held on time deposit in 1999. These deposits are largely for more than 12 months and comprise 39 % of total bank liabilities.

also credit clubs. These programmes have different objectives and guidelines, which create confusion amongst borrowers.

83. In the early years of the Project, the division of responsibility for credit delivery was appropriate. Now, given the emphasis on developing a commercial rural bank and the major role ACBA has in financing seed and fertilizers, the opportunity has been missed to integrate seed and fertilizer credit activities to allow ATG and ACBA to concentrate on their core competencies. A similar situation applies to finance for micro and small enterprises. ACBA is lending money to these enterprises for other projects but has not been invited (or declined when first asked) to provide the credit services for economic development projects. Having credit provided from three sources is reducing the impact of ACBA activities in developing strong ongoing relationships with their clients who can see that ACBA will support their businesses as they develop.

84. Village Associations. Given that the VAs and associated VAC were only created in 1996, the system of co-responsibility and grassroots assessment of loans has worked very well in the short time it has had to develop. ACBA data indicates that the number of proposals acceptable to VACs but rejected by ACBA have fallen from 60%-70% in 1996 to less than 5% in 2000. There were no indications that the VACs were not doing their work as this is being driven by the demand for loans.

85. FETs were told that some VACs felt that ACBA was using them to undertake preliminary screening without 'payment'. The 'payment' may be access to ACBA credit. The more substantial issue is what is the future role for VACs as loans are rolled over and credit is limited to those with adequate collateral. Little thought seems to have been given to the future role of VACs. Several VACs indicated that they wanted to provide group guarantees to farmers who did not have sufficient collateral for loans. It was felt that this would include a further 10% - 20% of farmers in the VAC and the ACBA lending programme.

(3) Impact of Activities

86. ACBA. ACBA has given loans to about 2 426 individual borrowers (3%) from an estimated 82 753 farmers in the project communities. In addition, these borrowers are the wealthier farmers who have mobile assets suitable for collateral. The total amount for lending was not increased even though there was an excellent repayment record (close to 100%), which is very good by the standards of any rural credit programme. It could be argued that the project has penalised the communities and VACs who have achieved these repayment rates by not giving them access to the funds saved by having a high repayment rate. Instead, some of the funds were used to start lending in the new project *marz*.

87. There is a clear trend for borrowers to tailor loan requests to needs and borrowers are becoming more sophisticated in their credit planning and use. Seed producers are becoming major borrowers to purchase elite potato seed (a grower in Gulagarak, Lori, borrowed USD 10 000 to buy imported certified seed potatoes). Another farmer in the same village reported that he had generated USD 6 000 from a USD 600 loan.

88. The Credit component is well under its targets for lending to women with the number of loans and amounts loaned at about 40% of targets set at appraisal (and less than 10% of loans made). Anecdotal information suggests that the targets set at Appraisal may not have been realistic and not taken account of social and cultural norms which would limit the access of women to collateral needed for loans and also the uses for these loans. A more targeted approach taking into account the social norms is needed in future rural credit



A harvester displaying his yield of potatoes

programmes. FETs did not find women had a large involvement in VAC activities in assessing loans.

89. The FETs reported that communities believed that the most successful outcomes were achieved where credit activities were combined with other project activities.

90. The pleasing part of the component is that ACBA has developed the capability and a clear commercial banking philosophy for lending to rural communities. Expansion of lending with additional innovative programmes to allow farmers not included in the first credit programmes should be a priority. This will require both continued support from international banking agencies but also mobilization of savings through the development of a savings culture.

91. The issue of shared responsibility for individual loans needs further consideration, as VAC members are correctly concerned about their role in helping the whole community. Several SMs had made recommendations that ACBA should consider group lending to farmers with inadequate collateral. FETs noted that several VACs had indicated that they wanted to lend to other farmers under a group guarantee but ACBA still would not consider the proposal. ACBA is prepared to (and does) make loans down to USD 100 so loan values are not an impediment to ACBA participating in smaller scale lending.

92. Village Associations. The VACs have developed skills in screening business plans and loan proposals. These acquired skills are used to the benefit of individuals but can also be perceived as unpaid services for ACBA. The VAs are aware they are being used by ACBA to provide group responsibility to loans given to individuals. ACBA is perceived as being halfway between a commercial bank providing risk funding based on collateral but also wanting to use group responsibility to increase loan repayment performance without a trade-off or compensation for the VAC's commitment.

D. Agricultural and Livestock Development - Seed Production Services

(1) Implementation Experience

93. Private Seed Production and Distribution. This component was implemented by ATG¹ and included production of super elite seed (mostly from imported US varieties) on leased land, provision of seed, fertilizer and chemicals as credit for elite and first generation cereal seed production. Some variety testing for yield (not other characteristics such as milling yield or bread taste) was carried out. Table 6 sets out production of the three main types of cereal seed and potatoes since 1997. An area of 27 ha has been leased for super elite and experimental plantings in the 2000/01 season. In addition, 310 farmers in six farmer groups plus 62 individual farmers have planted 357 ha of winter wheat and barley for first reproduction seed production.

Table 6: Production of Cereal Seed and Potato Tubers

	1998		1999		2000	
	Ha	Tonnes	Ha	Tonnes	Ha	Tonnes
Super elite: wheat, barley	3.1	12.9 12 varieties	8.4	35.9 10 varieties	14.5	12.9 12 varieties
Elite seed: Wheat, barley	19.5	25.8	72.2	175	178	328
Potatoes			4.5	133		
1st generation: Wheat, barley	418	917	273	579	248	341
Potatoes			31	913	28	295
Total Cereal Seed Production		946	354	790	441	982

Source: ATG records

¹ ATG now operates as Armenian Technology Group Foundation (ATGF) because of problems arising from not meeting GOA requirements.

94. ATG has also had some inputs into seed potato and alfalfa seed production but these have been at a much lower level. Seed potato production in Armenia is being driven by imports of certified potato seed from Holland with ATG supporting some multiplication, with 36 ha of potato seed being multiplied in 1999.

95. Individual seed potato growers are also borrowing funds from ACBA to import certified seed for multiplication.

96. ATG has also run a seed and crop production inputs credit programmes. Seed growers who are provided with seed have to return an agreed amount of seed to ATG for cleaning and resale or a package of fertilizer and chemicals are provided at an interest rate less than ACBA lending rates. Other seed and input credit programmes are also offered by USAID funded projects in NWASP *marz*. Table 7 indicates the number of loans and the repayment performance.

Table 7: ATG Input Credit Programme

	Crop Production Year							
	1998		1999		2000		2001	
	Seed	Fertilizer	Seed	Fertilizer	Seed	Fertilizer	Seed	Fertilizer
Farmers given input credits	21	31	48	61	80	44	43	-
Farmers who repaid after harvest	17	12	X	32	46	8	-	-
Farmers who did not repay during the next 12 months	4	5	X	17	3	36	-	-

Note: X = records not available
Source: ATG records

97. A Seed Producers Support Association (SPSA) has been founded with its own offices in Yerevan and has branches at the *marz* level. The SPSA worked with other projects in seed supply. However FETs found that some seed growers, although aware of SPSA, did not know of its activities or how to join.

98. Seed Testing and Certification. The seed testing laboratories in Yerevan and the three *marz* were upgraded with new equipment as planned. Due to the withdrawal of technical assistance from the project, no specialist advice was given on how to fully use the laboratories. FETS reported that seed producers were having seed tested by the seed testing stations.

(2) Performance

99. Private Seed Production and Distribution. The project has exceeded its 2000 target of 300 ha planted for cereal seed multiplication as 426 ha were planted for seed multiplication in 2000. Production of seed has been limited by the poor season in 2000 and by the fact that some farmers have not repaid their seed loans, therefore reducing the recorded production. The number of farmers multiplying seed is also more than planned (372 as opposed to 200). Evidence was noted by the FETs that seed production was becoming a specialized activity with skilled producers leasing larger areas of land so that they could make better use of their expertise and equipment on irrigated land.

100. A major constraint to the seed multiplication activities has been the ongoing differences in opinion on the suitability of the US wheat varieties for making *lavash*¹ and the emphasis in the seed selection programme on cultivars sourced from the US. This has diverted attention from a key element of the seed multiplication programme which is that certified seed will produce better yields that can more than offset the cost of the certified seed. Seed growers are having difficulty selling improved seed in their villages and to other buyers at a suitable premium above milling² wheat prices. In the past six months, purchases of

¹ Armenian flat bread

² Milling wheat is converted to flour for making bread

grain and seed by aid agencies for drought relief and food security purposes by ATG for USAID have created a non-commercial floor in the market.

101. The possibility to reduce seeding rates from the traditional 300 kg/ha for Armenian or Russian varieties down to the 130 kg/ha recommended (and proven technically sound) for the US varieties should also be considered. If seeding rates can be reduced for certified Armenian or Russian seed, it will lead to a 150 kg/ha increase in production in seed saved and will also reduce farmer's growing costs that are at risk in a dry season. In this aspect, the project activity has not assisted in improving grain production.

102. FETs have reported that some good growers have been able to obtain above average yields (4 t/ha) in the dry 2000 season using dryland production systems. This suggests gains can be made in commercial grain production by using better production technology. Crop production technology transfer issues are being addressed through other projects and programmes, largely funded by USAID.

(3) Impact of Activities

103. Private Seed Production and Distribution. Most seed growers have made special efforts to assist other farmers in their villages obtain improved seed. This has been achieved by selling improved seed at lower prices within the village and also taking payment in kind for seed.

104. FETs also reported examples of seed growers groups in Vardablur and Giverkarak (Lori) cooperating at village and district level in marketing and also in sourcing new seed for trial and development. These groups have set up farmers groups to produce second generation seed that the groups then market. These activities could provide a valuable model for development of grassroots organizations, which develop skills in marketing and distribution.

105. Seed production has not met its targets due to seasonal conditions and also difficulties in managing the seed credit programmes. During 2000, ATG purchased 1 740 t of US wheat varieties as part of USAID drought assistance to Armenia. This created a cash market for seed that was not available within the local seed market due to low crop yields.

106. As shown in Table 7, the seed and input credit programmes implemented by ATG have declining loan recovery rates. This is partially due to seasonal conditions deteriorating. The higher default rates are concentrated in Shirak, which is the main seed growing area. As much of ACBA's lending programme is for seed and crop production inputs, future projects could consider including seed/input credit programmes in the main ACBA credit programme. This would allow the technical agency to concentrate on technical issues while the credit activities are managed through the credit programme. This would also allow lending guidelines to be made consistent between components.

107. ATG has created the SPSA, which has taken a top down approach in developing links with seed growers through forming *marz* level organizations. Seed producers contacted by FETs indicated that they did not have strong links to the SPSA and saw it mainly as a way to link into seed and input credit packages provided by ATG and other funding groups.

Seed Testing and Certification

108. There has been limited impact from the seed testing and certification processes as most farmers cannot afford to purchase certified and also do not see a need to purchase it. The 1999 Progress Report reported from the Impact Survey that none of the 180 farmers included had used seed testing services.

109. The high seeding rates used for local seed varieties are greatly reducing the potential benefits from using certified seed and act as a strong commercial disincentive to the use of certified seed.

E. Agricultural and Livestock Development – Animal Health

110. The veterinary laboratories in each *marz* were upgraded as planned by the Project. Legislation to allow private veterinarians to practice has been passed but regulations to allow them to operate have not been finalized. Despite the lack of government inputs to veterinary services, private veterinary services have developed to fill the gap. FETs reported that private veterinarians were operating in many villages.

111. This was confirmed by the Impact Survey in the 1999 Progress Report. Only 10% of farmers reported using veterinary services, while all farmers with livestock reported that their stock had received necessary vaccinations. This was also reported to FETs: e.g. one community visited reported the private veterinarian was ensuring that all animals received their necessary vaccinations.

112. Clients strongly expressed that livestock development (credit and support services) was needed to balance the uncertainty of crop and seed production.

F. Project Coordination

(1) Implementation Experience

113. Planning of project activities commenced under a SOF in October 1997, five months before the loan agreement was signed. The Project Coordinator (Gagik Matevossian), moved from the World Bank funded IRP and started planning activities at this time. The *marz* coordinators, who had senior positions in the *marz* agriculture departments, started work unofficially in January 1998. Thus there was an excellent understanding of the needs and capabilities of the project *marz* and implementing agencies when the project loan became effective in April 1998. Irrigation rehabilitation activities continued on using the resources and experience developed during the first stage of the IRP.

114. The Project Coordinating Council (PCC) has met consistently over the period of the Project. *Marzpet* inputs have provided a strong link back to *marz* level which has been strengthened by the inputs of the *marz* level monitoring offices with close links to the *marzpeteran*¹. There has not been a formal coordination or planning group at *marz* level.

115. PCU staff and *marz* monitoring officers (MMO) have remained in place over the period of the Project developing their experience and knowledge of the project. To assist with monitoring of project implementation and impact, the M&E staff established and implemented a Project M&E survey to provide feedback on implementation of each project component and also the impact on farm income and expenditure of the project activities.

(2) Performance

116. The infrastructure aspects of the Project have been completed more than 18 months ahead of schedule due to: (i) the planning period leading into implementation; (ii) the faster response to issues and problems provided by DS; (iii) the experience of the PCU staff in the *marz*; and, (iv) the existing capabilities of the implementing agencies. The combination of planning and preparation before loan effectiveness and shorter response times reduced implementation times by up to 8 months. The original targets set for implementation were low, relative to the capabilities of the implementing agencies. Table 8 highlights the high rate of disbursement for the components².

¹ *Marzpets* are the head of the *marz*, *marzpeteran* are the provincial governments. All three *marzpets* have taken a close interest in project activities.

² Credit disbursements are above those planned because of the high loan repayment rates (outside Shirak). The funds saved were used to start ACBA operations in two new *marz*er which are included in the new ASP.

117. Many of the PCU and implementing agency staff had a role in planning the follow up ASP project incorporating their implementation experience.

118. The FETs has feedback from a number of villages that there was confusion about the role of the project and its components. For example at the Shirak wrap up meeting, the head of Benenian Community indicated that some community members were unclear of what were project activities or direct government activities. This had led some community members thinking the WUAs were a government organization designed to collect charges as taxes, thus restricting community involvement. There was also a lack of information on the role of ATG and elite seed production, particularly where ATG had been encouraging the use of US cereal seed.

Table 8: Planned and Actual Project Expenditure to end of March 2001

Component	Plan for Project (USD)	Actual To 30 March 2001	
		Total (USD)	Proportion Achieved by Project
Crop and Livestock Development			
1. Animal health care	183 263	183 263	100%
2. Seed multiplication	374 959	369 415	99%
3. Seed testing	137 392	137 392	100%
Total Crop and Livestock Development	695 614	690 070	99%
Irrigation Rehabilitation & Water Management			
	6 279 529	5 593 016	89%
Rural Credit	4 519 495	6 342 416	140%
Community Development	1 325 000	1 033 603	78%
Project Coordination	619 741	581 767	94%
Total Project Cost	13 439 379	14 240 872	106%

(3) Monitoring

119. The project has been under intense scrutiny with monthly reporting requirements to GOA plus IFAD reporting requirements. In addition to IFAD direct supervision missions and audits, GOA supervision departments from three ministries have audited project activities. This level of checking, supervision and report preparation (monthly for GOA and quarterly for IFAD) has generated a heavy workload and has had a high cost for project management.

120. The M&E office has developed systems for collating information from the implementing agencies and also to measure the impact of project activities and the consequent benefits to project beneficiaries.

(4) Impact of Activities

121. One of the main reasons the Project has been implemented efficiently and quickly is that the Project Coordinator, PCU staff and implementation agency management staff have worked together very well and have been very well led. The support from IFAD staff and the direct supervision consultants has reinforced the energy and enthusiasm of the PCU and implementing agencies.

122. The inputs and integration of the PCU and implementing agencies have led to the Project being implemented ahead of time and with greater than planned outcomes. The PCU and *marz* coordinators have provided strong informal links to the local activities but the Project has not included a formal coordination or activity review and planning structure at *marz* level. Without strong inputs from an experienced *marz* coordinator, this may be an area of weakness in a new project.

123. The rapid infrastructure development has led to grassroots organizations not being given time to develop their capabilities and maximize their inputs into activity planning and implementation.

124. The impact monitoring surveys put in place for the project: the baseline survey and follow up repeater surveys with more than 500 participating households and the PCU M&E impact survey with 180

participating households, are resource intensive but have not been used in a participative way to include project clients in the review and improvement process¹.

125. The Project has been operating in an unsettling environment of changing ministers (MOFA has had four ministers over the life of the Project) and a lack of strategic guidance from Government. This has restricted the ability of the Project to influence policy formulation and institutionalise key aspects of project interventions in further activities. For example, when GOA introduced WUAs across Armenia, project resources and approaches were not used to sensitise and introduce the concepts and experience of NWASP to the new WUAs.

G. Financial and Economic Analysis

126. The potential benefits identified in the Appraisal were based around improved farming systems through improved inputs and credit on farms on three soil types with some areas benefiting from irrigation infrastructure rehabilitation². A total of 9 506 farms/households were projected to benefit with 5 140 benefiting from improved water supplies. Project M&E databases indicate that more than 20 000 farms should benefit from improved irrigation supply systems with a further 1 930 benefiting only from improved access to credit and/or cereal seed. Therefore benefits from improved irrigation water supply systems are potentially four times those projected in the Appraisal document.

127. Benefits from credit being limited to farmers who received loans (less than 3% of the farmers in the project area) and/or received seed. Anecdotal comments from the FETs indicate that improved seed has been distributed to many poorer farmers in other villages around the seed production areas. Uptake of this improved seed is restricted by a lack of financial resources to purchase seed and also issues of taste relative to that from bread produced from local wheat varieties.

128. The estimated incremental increases in grain (83%) and potato (44%) production will be exceeded through the increased area of irrigated land. The estimated increases in milk (71%) and stock production (54%) will take longer to achieve because of the need to build up stock numbers which has been restricted by the dry seasons leading to high supplementary feed costs and unstable stock prices.

129. A more detailed analysis will be collated from data collected in the second repeater survey now underway. The difficult seasonal conditions in 2000 may limit the benefits highlighted through the survey analysis. The data from the repeater survey may allow the actual Incremental Benefit/Costs ratios for the Project to be compared with the estimates of 1.97 – 2.86 estimated in the Appraisal Report. The ratios should be improved because the capital costs of the Project have been spread over a much larger group of beneficiaries.

H. Impact of Assumptions on Project Implementation and Outcomes

130. Economic Conditions. Macroeconomic conditions in Armenia have improved over the period of the project with falling inflation rates, a relatively stable exchange rate and falling nominal (but increasing real) interest rates.

131. Government Policy. The political situation has remained stable and the main influence on the project has been a lack of strategic direction and consistent policy development relating to food self-sufficiency. Slow development of legislation and regulation plus lack of Government commitment to support the formation and operations of WUAs and the development of a private veterinarian system has also been observed.

132. Government policies on full recovery of water supply costs by water supply companies are placing unreasonable pressure on the WUAs and users in the short term as they develop the capability to manage

¹ One of the areas to be emphasized in projects directly supervised by IFAD was participant inclusion in monitoring and evaluation of activities and impact.

² Appraisal Report, Pages 39-40

their own water distribution systems and pay the full cost of O&M. The GOA is attempting to recover the full costs of water supply from both 'commercial' farms and from the large number of subsistence farmers who are struggling to produce enough food for subsistence and do not generate a cash surplus to pay for outside inputs. This applies particularly in more remote and border areas where settlements have been placed for reasons not related to productivity.

133. Market Conditions. Market prices for seed and grain from the project are being affected by competition from imported products and also subsidized product being supplied under assistance programmes. Use of fertilizer and chemical inputs are being limited by low farm incomes.

134. Climatic Conditions. The major factor influencing outcomes of the project have been difficult climatic conditions over the past two seasons. The dry conditions have reduced water supplies for irrigation and have caused much lower crop yields for dryland cropping. The dry seasons have been compounded by severe hailstorms in many of the project areas although these, with the dry seasons, could be seen as a normal climatic occurrence. The difficult seasonal conditions have led to discussions regarding crop insurance as a way of reducing the risk of crop production. An effective crop insurance system requires the participation of as many farmers as possible to spread the risk. Given the difficult financial situation of most farm families, it will be difficult to start an insurance programme without creating further short-term hardship.

IV. DIRECT SUPERVISION

A. Background

135. In 1996, the Executive Board of IFAD commissioned a review of supervision issues in IFAD-financed projects¹. This report identified four main functions in project supervision: (i) supervising the procurement, disbursement and end uses of funds; (ii) monitoring compliance with loan/grant contracts; (iii) facilitating implementation by helping borrowers interpret and respond to the lender's requirements; and, (iv) providing substantive implementation support to borrowers.² The review highlighted a view of CI (Cooperating Institutions) representatives that IFAD was disadvantaged by 'its inability to learn, even to a limited extent, from direct supervision experience'. This made IFAD a 'lesser partner' to the CIs.

136. The IFAD Governing Council broadly accepted the recommendations of the review that: (i) all CIs be held to certain minimum supervision requirements; (ii) current procedures for coordination between IFAD and CIs be improved; (iii) a more efficient portfolio management system be implemented; (iv) the emerging IFAD priority of getting results on the ground be strengthened; and, (v) IFAD should begin selective experimental direct project supervision on a small representative sample of IFAD initiated projects subject to several other conditions³.

137. An internal IFAD task force prepared the Direct Supervision Guidelines, May 1999, which indicated the process was to go beyond auditing of project performance and should build partnerships between IFAD, the Borrower, the intended project participants and other stakeholders.⁴ The loan administration function for IFAD direct supervision projects was contracted to UNOPS. NWASP was selected as one of the trial direct supervision projects.

B. Experience of Direct Supervision on NWASP

138. Consultative meetings within IFAD during the planning phase for implementing direct supervision identified a draft set of indicators for measurement of the impact of Direct Supervision⁵. Where appropriate, NWASP experience has been compared with these indicators in Table 9.

¹ Supervision Issues for IFAD Financed Projects, October 1996, Hans Wyss and John Malone.

² These were derived from a report of the World Bank's Portfolio Management Taskforce, 'Effective Implementation: Key to Development Impact', 1992.

³ These were: (i) Procurement and financing administration may be subcontracted to any reputable organisation; (ii) There would be no cost increase, as funds currently used for supervision by CIs would be reallocated; (iii) No additional staff would be required; (iv) There would be up to 15 test projects, with three projects from each region; (v) The test period would be five years; (vi) the direct supervision operation would be separate from the ongoing supervision system using CIs.; and, (vii) Separate accounting systems would be established.

⁴ Through Participatory planning, sensitive execution in favour of the poor and analytical monitoring and impact assessment with active participation of the rural poor, particularly women

⁵ These were set out on page 17 of the Progress Report on the Project Portfolio, Executive Board – Sixty Sixth Session, April 1999

Table 9: Performance of Direct Supervision on NWASP against IFAD Indicators

Indicator	NWASP Experience	Control Group
1. Period between Executive Board approval and loan effectiveness	<p>Five months. This is the responsibility of CPM regardless of supervision model, therefore should be independent of that model.</p>	11.6 months
2. Disbursement performance	<p>Disbursement lag of - 253% compared to 'IFAD model' of actual trends, (using methodology adopted in IFAD Periodic Loan Portfolio Review). See Attachment 2. Due to very effective PCU, implementing agencies and CPM responsiveness</p>	Lag of -19.6%
3. Cost of supervision per project/year	<p>Expenditures equalled USD 65 500 per year, for supervision and implementation follow up. Of this, USD 44 750 was spent from the IFAD regular budget and USD 20 750 from supplementary funds. Total costs equal USD 134 000 per year including staff time, but not IFAD overheads.</p>	USD 49 859 for supervision and implementation follow-up.
4. Timely identification of actual and potential problems and innovative nature of addressing issues	<p>Implementation time was 18 months less than SAR estimates. Project "time-overrun" of - 22%, (using methodology adopted in IFAD Periodic Loan Portfolio Review). Strong view by partners that direct supervision has led to very effective addressing of issues, innovation in finding practical solutions, e.g. conversion of part of IFAD loan into grant to increase ACBA capital base.</p>	Control group projects still within original implementation period. No basis of comparison with respect to innovation.
5. Timely follow up action during country visits and from headquarters	<p>See above. High level of enthusiasm and commitment of PCU staff and CPM. Comparable timeliness in follow up action during country visits and from headquarters in other IFAD project in country supervised by CI. Hence, not fully attributable to direct supervision process but rather individuals responsible.</p>	Control group still within original implementation period.
6. Accumulation of first hand knowledge and identification of cross cutting issues to positively influence IFAD's entire portfolio and strategy in a given country.	<p>Knowledge has been accumulated by CPM and consultants working on supervision, no clear evidence of change in IFAD strategy in Armenia as result of direct supervision experiences. Cross-cutting project level operational issues addressed. Larger policy implications of experiences in NWASP project with respect to institutions, resource allocations and the role of agriculture in poverty reduction and rural economic growth not addressed at policy level or design of subsequent project.</p>	No information available for control group.

7. Identification of new project concepts for inclusion in the pipeline	No new project concepts for inclusion in pipeline. Replication of NWASP concept. No recorded review of implications of follow-up project with respect to policy choices that NWASP-type investments embody in irrigation and financial services sectors.	No information available for control group.
8. Period between field mission, receipt of aide memoire, preparation of supervision report and despatch of management letter.	August 1998 Supervision Mission, no record of Management Letter. April 1999 Supervision Mission, no record of Management Letter. October 1999 Supervision Mission, 38 days between completion of supervision field mission and dispatch of Management Letter and Supervision Report. April 2000 Supervision Mission, 101 days between completion of supervision filed mission and dispatch of Management Letter and Supervision Report. Management letters issued for only two of four supervision missions. Mid-Term Review, scheduled for October 1999, was never undertaken. Supervision missions scheduled for October 2000 and April 2001 were not undertaken.	Not currently monitored for control group.
9. Periodicity and timeliness in the receipt of project reports, e.g. Progress reports, etc.	By and large performance was assessed as good. However, some difficulties with the comprehensiveness and periodicity of reports. The Progress Report for 2000 had not been received in April 2001 at the time of the evaluation. No information was available from PN on the date of receipt of other progress reports.	Not currently monitored for control group.
10. Timely processing of key documents, withdrawal applications, request for 'no objection', etc	The PCU reported that IFAD performance was very good in this area.	Not currently monitored for control group.
11. Assessment by implementing agencies	Implementing agencies are very positive about the benefits of direct supervision compared to supervision of this and other projects by CIs or other funding agencies. Comment from implementing agency – 'IFAD supervision missions want to see output targets set and then achieved'.	Not currently monitored for control group.

139. Examination of this project has illustrated two general points about the praiseworthy intentions to measure the impact of direct supervision according to specific indicators. The first is that if mechanisms are not set up *a priori* to monitor the data on the selected indicators for the main set of projects being studied and for the control group, then that information is very difficult and time consuming to “fish out” from correspondence and other document files when one eventually chooses to consider the issues. The second is that it is not realistic to monitor such a large control group - 57 projects - especially on qualitative performance questions such as “timely identification of actual and potential problems and innovative nature of addressing them”.

140. In addition to these indicators, the Direct Supervision guidelines had emphasized the following aspects of IFAD’s charter.

141. Participatory planning. As implementation and disbursement was being pushed, pressures to speed up construction possibly led to grassroots organizations not being given time to establish and become cohesive organizations which could manage the planning and implementation phases. No formal processes are in place to use PP as a driver for preparation of annual work plans. It is understood that a course in participatory planning was provided to the PCU by IFAD consultants, early in project implementation.

142. Sensitive execution in favour of the poor being undertaken well in all components except Credit, which specifically excludes the poor because of its collateral requirements. Requests by VACs and direct supervision missions for ACBA to provide some funds for village association guaranteed loans to village association members without collateral have been ignored.

143. Analytical monitoring and impact assessment with active participation of the rural poor, particularly women. The PCU has developed monitoring and impact assessment systems implemented by PCU staff but has not specifically included the rural poor and women into impact assessment process, although data is disaggregated by gender. SHEN has been working through the CAGs as representatives of the community. The systems do not specifically address the target groups.

C. Costs

144. DS and CI supervision costs for NWASP, the other 14 direct supervision projects and a further 57 projects that became effective since late 1997, were extracted from the IFAD accounting system. Estimates of the costs of the different supervision approaches are summarized in Table 10, costing details are provided in Annex 5, Attachment 3.

Table 10: Average Total Supervision Costs per project, per year

	No. of Projects	Supervision & Implementation Follow-Up Expenditures IFAD Budget	Implementation Follow-Up Supplementary Funds	TOTAL IFAD budget & Supplementary Funds	IFAD Staff Costs	GRAND TOTAL
NWASP	1	44755	20 751	65 506	74 120	139 120
Other IFAD Supervised	14	50704	n/a	n/a		
Control Projects	57	49859	n/a	n/a		

Source: IFAD Controller (except for PN use of supplementary funds for NWASP)

V. SUMMARY FINDINGS TO KEY QUESTIONS

How did the Project change the living conditions of the target population in terms of income, production and food security?

145. 36 800 households with more than 120 000 members have (or will, when development activities are completed) benefited from some or all of the project activities. This is much higher than the target population of 9 500 families projected in the Appraisal document. Table 11 summarises the data on probable project beneficiaries.

Table 11: Communities and Clients Benefiting from NWASP

<i>Marz</i>	Households impacted by Project Component ¹				Total Households	Total Population
	Irrigation	Community Development	Credit	Seed Production ³		
Lori	10,039	5 901	1 194	30	17 164	55 917
Shirak	10100	6 585	1 025	186	17 896	65 179
Aragatsotn	5 393	5 568	1 544	2	12 507	35 226
Total	25 532	18 054	3 763	218	47 567	156 322
Adjustment factor ²	0.8	0.8	0.46	1		
Estimated beneficiary households	20 426	14 443	1 731	218	36 818	120 997
Appraisal target population					79 882	335 600
Population for Appraisal benefit Estimates					9 506	

42. Calculated using PCU records on participating communities and adjusting for where more than one activity has been implemented in a community.
43. Based on experience from FETs. In some communities, not all farming households had land with rehabilitated irrigation infrastructure or received direct benefits from social development projects.
44. The number of farmers benefiting from improved cereal seed production is an underestimate as the FETS found that most seed producers were making good efforts to distribute improved seed to other farmers in their community.

146. Although beneficiary capital assets, in particular land, have increased in value, Survey data with respect to income and living standards from the Survey were difficult to interpret and sometimes ambiguous. The Survey found that beneficiaries and control group households experienced comparable increases in the value of average total income (cash and own consumption) between July 1998 and March 2001. However, at the time of the survey approximately 80% of beneficiary households and 90% of control group households fell below the national poverty line. These figures reflect a sharp decline in living standards from those reported at the time of the repeater survey in October 1999 when only 6% of beneficiaries and 18% of control group members had per capita income figures that fell below the poverty line.

147. The current drought may partially explain these figures. One, or in many cases two, 'normal' seasons are needed for farmers to realize the potential of the rehabilitated irrigation schemes and associated support services, and to generate significant cash surpluses. Until then it will not be clear whether they will be able to consolidate their own financial positions and provide the cash flows required by the WUAs, seed producer associations and CAGs to operate sustainably. For these reasons, monitoring and impact evaluation of NWASP should continue.

148. The Socio-economic Repeater Survey did find significant changes in the agricultural production levels of households that participated in NWASP compared to those from the control group who did not participate in the project, even in the face of water shortages caused by drought. For example, for a typical beneficiary household output in cereals and potatoes increased by more than 66%, whereas output for control group households stayed the same or fell with respect to those two crops. Beneficiaries achieved

higher levels of outputs than control households did in vegetables, fruits and fodder. Overall, the total value of their output was 30% higher than the value of agricultural output of the control group.

149. With respect to food security, at present, the percentage of households with a three-month supply of food in storage fell for both the beneficiary and control groups. This was largely due to on-going drought conditions and seasonal difference in the period during which data was collected. However, the drop in beneficiary households with such stocks was 3% but 20% for the control group. Food intake has also become more regular among beneficiaries. At the time of the baseline survey 19% of households reported skipping daily meals. That figure has now dropped to 10% among project beneficiaries, and it is 17% for the control group. The survey showed that 66% of women and children consumed three meals per day in the four months preceding the survey, while only 50% did so at the time of the baseline survey in August 1998.

To what extent were the designs of the various components relevant to the needs of the target group?

150. The Evaluation found that beneficiaries were largely satisfied with the designs of each component, subject to constraints imposed by funding. Communities indicated that inadequate irrigation resources were the major constraint to improved living conditions. Moreover, irrigation improvement had widespread relevance, providing benefits in a relatively equitable fashion to a cross-section of the community. Because design and implementation was guided by community groups it provided a strong link to community needs.

151. The same held true for the community development component. However, the processes designed to select communities and identify activities were perhaps more relevant than types of activities envisaged originally. The established processes allowed communities to demand and effect a shift in the types of activities selected for community development support. Yet, the shifts that communities themselves sought made them relevant for narrower target groups.

152. The credit and seed components were relevant only to the needs of some members of the target group, due to constraints of accessibility to and suitability of products offered. Funds available for the credit component were limited and were rationed through collateral requirements. The credit component, oriented towards supporting development of a sustainable rural credit institution, was relevant as a necessary condition for sustainable delivery of financial services. However, it was not relevant for a wide cross-section of clients.

153. The design of the Seed component was relevant to an apparent need for certified cereal and potato seed to achieve higher crop productivity in the rehabilitated irrigated areas. However, in implementation that need did not translate into demand as foreseen at project design. This was largely due to: (i) farmer uncertainty over the suitability of imported cereal varieties for local growing conditions; (ii) local consumers' taste; and, (iii) low levels of farmer incomes that have prohibited purchase of higher cost improved seed.

154. An area of concern is that the project was designed so that social development activities should specifically address the priorities of women. This, plus the target of having 30% of ACBA loans directed to women, were the main areas of direct support for women. This objective has been undermined with the replacement of the social development programmes with the economic development projects and the fact that only 2/3 of the planned number of communities completing social programmes. The proportion of ACBA loans taken up by women at less than 10% is well below the target of 30%.

How effective were the implementing agencies in reaching their physical objectives?

155. The Project was unquestionably effective in achieving most of the physical targets specified in the logical framework, as shown in Table 12 below:

Table 12: Achievement indicators

Component/Sub-component	Indicator	Planned at Appraisal	Actual April '01	
Irrigation and Water Management <i>Water Management</i>	Field offices established/upgraded	3	3	
	WUAs formed (days)	50	58	
	WUA training	150	174	
	<i>Irrigation Rehabilitation</i>	Designs (scheme) carried out	50	54
		Schemes rehabilitated	50	50
		Schemes rehabilitated (ha)	6 975	17 361
Agricultural Credit	Village associations established	100	228	
	Branch offices established/upgraded	3	2	
	Loans extended (no.)	6 108	7 466	
	Loans extended (USD)	4 095 800	5 462 151	
	Loans repaid/recovered (no.)	6 108	4 924	
	Loans repaid/recovered(USD)	4 095 800	3 505 637	
	Loans extended to women (no.)	1 832	698	
	Loans extended to women(USD)	1 228 740	527 209	
Community Development	Contracts to participating communities	100	81	
	Community projects completed	100	61	
Crop & Livestock Development <i>Seed multiplication</i>	Farmers engaged in seed multiplication	800	367	
	Area planted for seed multiplication (ha)	1 200	1 820	
	<i>Regulatory services</i>	Farmers repaid seed equivalent	n/a	284
		Certifications made	n/a	0
		Seed testing laboratories rehabilitated	4	4
<i>Animal health care</i>	Veterinary laboratories rehabilitated	3	3	
	Training courses held	4	1	
	Disease diagnostic tests undertaken	70	0	

156. The table shows that the Irrigation Component has achieved all its physical objectives and exceeded the area planned for rehabilitation by 250%. The Credit component has achieved its loan and client targets but has not achieved its targets for loans for women. Loan repayment targets will not be achieved in Shirak because of problems, largely created by ACBA staff, now being compounded by the difficult seasons, which will prevent many farmers with problem loans from reducing the outstanding amounts. Due to the change in emphasis from social to economic development projects, the Community Development component has not achieved its physical targets but implementation activities are underway to ensure that the targets are achieved by the end of June 2001. The Seed component has achieved its target of area of seed produced. The number of growers is lower than planned because seed growers have increased the area used by their operations.

How efficient were the implementing agencies in achieving the maximum level of benefits with the resources allocated to them?

157. Beneficiaries rated Project efficiency as high. Quantitative data also shows that the level of efficiency of the implementing agencies - especially WMS and IRP in irrigation, ACBA in credit and to some extent ATG in seed supply - was quite high in terms of transforming financial inputs into physical outputs. As noted above, funds made available in the Project were managed in such a way as to realize output levels that were higher than forecast at Appraisal, in less time. The number of hectares covered in irrigation rehabilitation was, for example, 250% of what was planned. Likewise, the value of funds lent was 133% of planned levels. The Project was able to undertake more training days with allocated funds, establish more village associations for credit, and plant more hectares for seed multiplication.

158. However, some care needs to be taken in the interpretation of such results. There is a possibility that in some cases, such as irrigation, results may be attributable to over-estimation of costs at Appraisal. Low spending per unit of output could have other implications. For example, in some civil works activities, in-kind beneficiary contributions exceeded expectations. Whereas, in the case of lending, good credit management that resulted in high repayment levels is likely to have been indicative of very conservative loan screening criteria that excluded beneficiaries the Project was designed to reach.

To what extent can the benefits of the various components be sustained after project completion?

159. The Evaluation found that the rapidity of project implementation which clearly contributed to its effectiveness and efficiency could potentially have a negative effect on the sustainability of its benefits: early project closure could cut short of support for village level organizations created by the project. Many organizations, after only three years of project implementation, may not have had sufficient time to develop into mature institutions able to function on a sustained basis.

160. Irrigation Component WUAs in some project villages are collecting up to 100% of water charges levied by the WUAs, most are collecting at least 50% of charges levied in a difficult season with low crop yields and farmer incomes. Some WUAs are accepting work in kind for outstanding water charges but this option cannot cover all the cash costs of employing staff to run a water supply system. This recovery rate will be difficult to sustain if water supply companies do not provide water supplies contracted with the WUAs and continue to have first access to water charges paid through post offices.

161. Without a strong commitment from GOA to work with and support the WUAs, benefits from irrigation rehabilitation investments will not be sustainable. Due to the dry seasons and problems in dealing with the water supply companies, WUAs currently face difficulties raising the funds from water charges to both pay for bulk water supply and fund O&M operations. Commercial farmers will be able to fund water charges. However, smaller non-commercial/subsistence farmers – potentially half the farmers in the project area - are unlikely to have acquired surpluses to pay the full costs¹. Inability to pay could well undermine the current model of irrigation water supply and management of irrigation O&M in Armenia.

162. A major threat to substantially improving long term crop production will be the inability of subsistence farmers² to pay the ‘full’ cost of irrigation water provided by water supply companies through their WUA. The inability of a large group of farmers to pay for irrigation water will threaten the current model of irrigation water supply and management of irrigation O&M in Armenia using the model developed by IRP and NWASP and will require GOA to revise its strategies for the irrigation sector. Potentially more than half the farmers in project areas may not be able to pay the water costs. The problem

¹ There are very few places in the world where farmers are paying the full costs of irrigation water. In most cases, proposals to introduce full recovery of water costs are introduced over a long period. It is unclear in Armenia how the full costs of bulk water from the water supply companies have been calculated.

² Subsistence farmers are those farmers without enough suitable land and/or management skills to produce more than their own food requirements.

is accentuated if farmers wish to turn to tree crops or vines in which Armenia has a comparative advantage as they will need to fund irrigation water supplies for a longer period before earning income and need irrigation to secure the large investment in developing these crops.

163. Agricultural Credit Using Village Associations, ACBA has developed processes and procedures for managing a rural credit programme providing a range of credit from small seasonal loans of USD 100–200 through to longer term loans of up to USD 5 000. ACBA itself is providing agricultural loans for up to USD 40 000. Thanks to basically sound financial management and successful on-lending practices, there is every reason to expect that current levels of lending in Lori and Aragatzotn will continue. However, expansion in lending will be constrained by the ACBA levels of capital and access to additional credit lines. In future, savings mobilization from rural communities through the banking network created by the Project will be important for sustaining and expanding banking services.

164. Community Development Ongoing benefits from social development activities will depend on the energy and enthusiasm of the Civic Action Groups to maintain the projects they have undertaken and to mobilize resources for further projects to assist their communities. SHEN monitoring reports indicate that half of the groups created have taken steps to achieve this. Yet, without continuing interest and support from SHEN or a similar agency, this energy is likely to dissipate. The success of economic development projects and the viability of loans provided by SHEN to finance them will depend on the energy and drive of the individuals who own them.

What were the costs and benefits of Direct Supervision of this project to IFAD?

165. Actual expenditures on IFAD direct supervision and follow-up of this project were approximately USD 65 000 per year. About USD 45 000 was covered by the IFAD regular budget and USD 20 000 came from extra-budgetary resources in the form of supplementary funds. The Country Portfolio Manager and Programme Assistant estimate that roughly 40% of their time was allocated to direct supervision of the project. Other IFAD colleagues indicated that this might be an underestimation of actual CPM and PA time dedicated. If this cost, normally covered in payments to Cooperating Institutions, is accounted for, then overall costs increase to USD 135 000. These costs, in terms of staff time, were borne by the CPM and Programme Assistant at the expense of other projects and IFAD duties that received less of their attention and at their own personal expense. The assignment of an Associate Professional Officer to assist the CPM attenuated the situation for part of the project implementation period.

166. Comparison with other projects directly supervised by IFAD from among the current pilot programme and eventual “second generation” IFAD supervised projects will be needed in order to determine the extent to which staff time costs were high because of the first time or path-breaking nature of NWASP. However, while costs incurred in the recruitment of consultants for implementation support (in this case about half of the USD 65 000) could be treated as variable, the basic cost to IFAD of direct supervision in terms of staff time are fixed and are likely to remain higher than originally expected, even after experience is gained in the related processes.

167. The most apparent benefits of direct supervision to the project were derived from the responsiveness of IFAD to project needs. This was mostly manifest in rapid replies to queries from the PCU related interpretation of the Appraisal Report and IFAD procedures with respect to procurement, recruitment and other disbursement issues. This was a significant contributing factor to the quick pace of project implementation and full disbursement before the expected closing date.

168. Project implementing agency staff were generally appreciative of the quality of technical support provided by IFAD in project implementation. This is attributable, at least in part, to IFAD direct supervision as it heightened the organizations understanding of project needs for support as well as IFAD’s commitment to efficient provision of such support. Yet for IFAD the expected learning to inform future performance was largely confined to the staff directly concerned and not shared with IFAD generally. Moreover, both advantages and drawbacks were observed in terms of learning for the IFAD portfolio and

the Project due to the fact that many of the same individuals – both staff and consultants – were responsible for both design and implementation. Examples of such drawbacks include the lack of a critical concern about the speed of implementation and project emphasis on achieving physical targets rather than social development needed to sustain the benefits that physical outputs would offer, the missing focus on ensuring gender-balanced benefits, and the design of credit and financial services activities in the new Agricultural Services Project.

VI. RECOMMENDATIONS

Project Closure

- The impact and effectiveness of NWASP activities should be monitored up to the original planned completion date of December 2002. This should focus on the performance and sustainability of the grassroots organisations created through NWASP.

Irrigation

- Fully transparent information on the ways that water fees are set, the ways that fees collected are allocated among concerned agencies, and the ways that fees are used by those agencies should be made available to all water users through water user associations.
- A study of the cost of water delivery should be immediately undertaken.
- On the basis of the results of study there should be a: (i) review of government policies on the allocation of investment resources to irrigation infrastructure; and, (ii) re-examination of the viability of subsistence and small-scale farms given the costs of water that they may have to bear.
- Current policies regarding use of loan funds for civil works should be changed to allow water user associations to supervise and undertake rehabilitation of schemes with technical backstopping by concerned government agency and monitoring by the project.

Credit and Finance

- New approaches to providing financial services to borrowers without collateral should be tested.
- Involvement of non-financial institutions should be limited to: (i) support borrowers in accessing and using finance; and, (ii) support banks in loan screening, disbursement and repayment monitoring.
- Financial services in rural areas should be expanded to include savings and establish links between savings and lending practices.

Seeds

- Testing of new cereal varieties should be done by GOA research stations, with links to producers.
- Grassroots seed producer organisations, based on the models of Vardablur and Giverkarak, in Lori should be initiated at district level in each *marz* to allow growers to share technical and market information.

Community Development

- Community development agencies should not be directly involved in lending activities as such, especially for loan-sizes already handled by existing financial institutions.

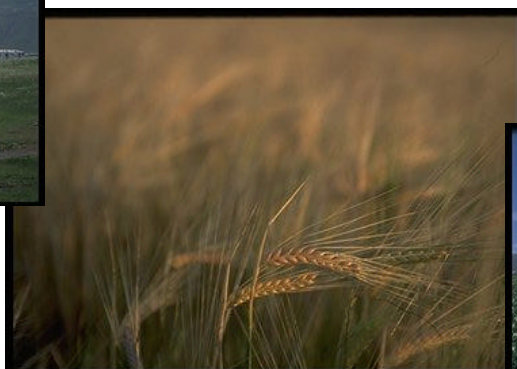
- Community development agency involvement in financial service delivery should be limited to support microfinance activities not normally handled by banks.
- The approach to the use of grant financing to reduce poverty through community development should be broadened. If communities wish to focus on employment generation, for example, a range of activities such as training and assistance to entrepreneurs in preparing business plans, accessing formal institutions, or investing remittances could be considered.
- The NWASP model of developing and supporting grassroots organisations such as the community action groups, water user associations and village associations, to assess people's priorities, plan, and implement activities should be used wherever possible.
- Assigning local NGOs the responsibility for working with projects to develop these grassroots organisations should be considered.

Information

- All projects should include communications programmes to provide target groups with information they need to understand project objectives and activities. Widespread information campaigns should start during project design and continue throughout implementation.

IFAD Supervision of IFAD loans

- There should be a monitoring system to analyse financial and human resource costs to IFAD of direct supervision.
- There should be explicit ways of sharing, within IFAD the knowledge that it acquires through direct supervision.
- A system of checks and balances should be created whereby responsibility for design, supervision, monitoring, and approval processes are shared rather than vested in a single staff member as at present.



APPENDIX 1: Approach Paper

APPENDIX 1: Approach Paper

VII. BACKGROUND, RATIONALE AND FOCUS

1. The North West Agricultural Services Project, (NWASP) became effective in April 1998. It was originally scheduled to close in December of 2002. However, as of 1 March 2001 more than 93% of the USD 12.9 million loan has been disbursed and project implementation activities are expected to end by late June 2001, approximately 18 months ahead of schedule. The project is one of 15 projects that were chosen by IFAD to be part of its pilot programme for direct supervision. The Ministry of Food and Agriculture is the project-executing agency.

2. The first loan to Armenia, for USD 8 million, was used to cofinance the Irrigation Rehabilitation Project, (IRP) of the World Bank. NWASP was the second project in Armenia financed by an IFAD loan. It will be followed immediately by the Agricultural Services Project, (ASP) scheduled for presentation to the IFAD Executive Board in April 2001. Like the IRP, NWASP focussed on tertiary irrigation infrastructure and water management. However, NWASP was designed to include investments of equal importance in the development of rural financial services. It also included complementary investments in community development as well as agricultural production services in the areas of seed and animal health. The new IFAD loan to Armenia for ASP is designed to follow directly on from NWASP using the same Project Coordination Unit and largely the same institutions. Roughly 80% of loan funds will be dedicated to activities related to irrigation and rural finance.

3. The overall objective of NWASP is *To improve the living conditions of the target population in terms of higher levels of production, income and food security*. It operates in three provinces covering a target population of about 335 000, with expected benefits to reach a total of about 9 500 households.

4. The **rationale** for undertaking a Completion Evaluation of NWASP is twofold. Firstly, the Programme Management Department of IFAD would like to analyze the experience of implementing this project as an experiment with direct supervision. Secondly, the project appears to offer potentially important lessons with respect to both water management and rural finance that could be useful for the design and implementation of other projects of IFAD and other donors in Armenia and in this region.

5. Consequently, the Completion Evaluation will **focus** on two levels. One is the household level. The other is the level of the institutions where arrangements and relationships were created between IFAD and the Government of Armenia for supervision and implementation follow/up. With respect to the project generally, the evaluation will make reference to the extent to which NWASP responded to the concerns of the IFAD Governing Bodies detailed in the *IFAD Action Plan*, namely impact, knowledge management, policy dialogue, and partnerships.

VIII. OBJECTIVES, KEY QUESTIONS, EXPECTED OUTPUTS, EXPECTED OUTCOMES

6. The **Objective** of the Completion Evaluation will be: (i) to learn how and to what the extent the project achieved its overall objective to improve the living conditions of the target population; (ii) to determine how direct supervision of NWASP by IFAD made an impact on NWASP and on IFAD; and, (iii) to provide feedback on NWASP project outcomes that can help partners associated with the future ASP project to successfully achieve their objectives.

7. The **Key Questions** to be addressed by Interim Evaluation will be:

These questions will be looked into by the Evaluation Team taking into consideration the detailed questions inputs made by CLP members during its meeting of 5 March 2001 in Yerevan. See Appendix 1 for summary record.

8. The **Expected Outputs** of the Completion Evaluation will be:

- An Evaluation Report, in English with Executive Summary in Armenian, that includes:
 - Detailed replies to each of the key questions, with supporting evidence,
 - Results of the 2nd Repeater Survey,
 - Recommendations for Follow-up Action in the context of ASP implementation.
- A Completion Agreement, in English and Armenian, recording the points of consensus amongst the evaluation partners on the findings and recommendations.
- A High-Level Policy Maker Briefing (or workshop) in Yerevan to inform officials of the Office of Prime Minister, the Ministry of Finance, the Central Bank, the Ministry of Agriculture, the new government agency for water resources and others of project results (to be covered by video and integrated into television spot). This will be followed up by a letter from IFAD Senior Management to selected Ministers highlighting the most important findings of the evaluation.
- A short television spot describing project achievements, project approaches and evaluation outcomes for beneficiaries and general public broadcast in *marz* included in the project area.
- A short booklet in Armenian for widespread distribution to ASP partners summarizing the Executive Summary and Agreement at Completion Point.
- A presentation to the Evaluation Sub-Committee of the IFAD Executive Board, in the form of a briefing and a report, on the evaluation findings and recommendations with respect to direct supervision.

The **Expected Outcomes** of the Interim Evaluation would be:

- A better appreciation by government of the results of the NWASP project and the need for concrete follow-up in key policy areas for sustainability and future replication of NWASP results.
- A deeper understanding of the target population by evaluators and all evaluation partners.
- A better understanding by IFAD management and governing bodies of the possible strengths and weaknesses of direct supervision of IFAD projects by IFAD.
- Better implementation of IFAD projects in Armenia.

IX. PARTNERS INVOLVED

9. The **Core Learning Partners** for the Completion Evaluation will be composed of the following:

Mr. Zaven Gevorgyan - Minister, Ministry of Food and Agriculture
Mr. Gagik Matevossian - Project Coordinator, NWASP
Mr. Samvel Ghazaryan – Head, Water Management Section
Mr. Stepan Gishyan – Managing Director, Agricultural Cooperative Bank of Armenia
Mr. Haik Minassian – President, SHEN
Messrs Roger Benton, Arkadi Markarian - Armenian Technology Group, SPSA
Mr. Vardan Movsisyan – Chairman, Water Users Association Union of Ararat
Mr. Klemens van de Sand – Assistant President, IFAD
Mr. Pietro Turilli - Country Portfolio Manager, IFAD

Ms. Chase Palmeri – Senior Evaluation Officer, IFAD

10. Roles and responsibilities of the Core Learning Partners are found in Appendix 2.

11. A **Broad Partnership** of all major stakeholders would be requested to collaborate in the Interim Evaluation process. They would be composed of:

Project Beneficiaries
Project Implementing Agency Staff
WMS/IRP, SHEN, ATG/SPSA, ACBA
Marz Government Staff
Aragatsotn, Shirak, Lori
World Bank – Yerevan Office
United Methodist Committee on Relief – Yerevan
IFAD Programme Management Department and Loan Administration Staff

X. THE EVALUATION PROCESS

12. The evaluation process has begun with a preliminary visit to Armenia by the IFAD staff member responsible for the evaluation, Chase Palmeri, and the proposed evaluation team leader, Ian Teese. During that visit they met with the various partners in the project to identify the Core Learning Partnership for the evaluation and obtain their views on the key questions that need to be answered by the evaluation. This enabled them, in turn, to work with the partners to design the methodology of the evaluation overall and to map out the evaluation process. This Approach Paper was drafted upon completion of that visit and its contents reflect the consultations with partners at that time.

13. From the standpoint of project implementation, partners agreed that the performance of the project has been relatively well documented through project Supervision Reports, produced by IFAD, and Progress Reports produced by the PCU12. Partners directly involved in the implementation in the project demonstrate a good grasp of the strengths and weaknesses of the project due to careful monitoring. Furthermore, many of the lessons learned during NWASP implementation have been taken into account in the design of the ASP project that is to constitute a follow-up to NWASP.

14. Therefore, it is proposed to utilize the evaluation exercise, at least in part, to engage the beneficiaries to the fullest extent possible to answer the key questions identified by the evaluation partners. As they are the ultimate clients that the project is designed to serve, the evaluation will help them to evaluate the project according to their own criteria.

15. To implement the evaluation three types of **expertise** will be required:

- 1) Skilled social scientists, with quantitative skills in statistical methods to undertake the 2nd Repeater Survey and analyze results.
- 2) A Facilitator to provide on-the-job training for evaluators and serve as a team leader for the coordination of all evaluation inputs.
- 3) Open-minded men and women, preferably farmers and implementing agency staff who are familiar with the conditions in the project area, who are familiar with the activities of the NWASP project, and who are able to readily communicate directly with intended project beneficiaries in the Armenian language.

1 While the PCU Progress Report for 2000 has not yet been issued, it is expected that this will be available prior to the implementation of the evaluation.

2 The project is also now overdue for supervision. However, supervision is not scheduled to take place before the evaluation is implemented. It is anticipated that a final supervision mission will take place, possibly in the context of the Project Completion Report required by IFAD for all closed projects.

16. The **methodology** that will be used to conduct the evaluation will consist of several parts or elements as described below.

17. The first element will be a formal survey that has been designed to measure the household level impact of the project in quantifiable terms. This survey will be the second repeat of the baseline survey that was implemented in October 1998. It will be undertaken by the same team from the Ministry of Statistics that has undertaken the baseline and first repeater survey. The results of the survey will be complemented by drafting a set of beneficiary profiles. These will describe the changes in the lives of a selected small number of men and women (8-10) over the life of the project. It will include people in the project area who are and who are not beneficiaries. Amongst those who are not beneficiaries, it will include those who aspired to have access to project benefits and those who did not seek access.

18. The second element will be "participatory evaluation" exercise that will be undertaken with farmers and by farmers working together with selected implementing agency staff. The detailed steps for this process are described in Appendix 3 attached herewith.

19. The third element will be a desk study combined with interviews with key resource persons at IFAD and in the PCU and Armenian Government to obtain the information required to answer the key questions with respect to the direct supervision of the NWASP project by IFAD. The team leader will analyze information on the indicators specified by the Programme Management Department for monitoring and evaluating of the supervision process in directly supervised projects. He will seek to identify the costs and benefits to IFAD of the direct supervision of NWASP by IFAD. This will be done in such a way as to contribute to the upcoming Mid/term Review of all IFAD's directly supervised projects. The Project Director and the IFAD Country Portfolio Manager will be asked to help quantify the costs of supervision in terms of financial costs and staff time. They will also provide written qualitative assessments of the supervision process.

20. The fourth element will be written inputs, obtained through questionnaires from selected partners. The first will be a written evaluation by the CPM, PCU and others involved in the supervision process. The second will be a written assessment of the performance of IFAD, by staff who has direct contact with IFAD. The third will be a brief written evaluation of the implementation of the evaluation and the performance of the team by project staff.

21. The preliminary findings and recommendations of the evaluation would be discussed in a final meeting with partners in Yerevan. Once the draft report is available, it will be reviewed in a meeting with the CLP and other partners in Yerevan. The draft report will also be provided to the Project Coordination Committee for review and comment. At the time of the final meeting with partners in Yerevan is held, the **Agreement at Completion Point** will be formulated and finalized by the CLP.

22. Dissemination of the findings and recommendations contained in the Agreement at Completion Point would be targeted at the four types of stakeholders in the evaluation. These include: (i) the High-level Armenian Policy Makers amongst whom the CLP would like raise awareness of NWASP and its results; (ii) IFAD governing bodies who need to know outcomes associated with the Direct Supervision of IFAD projects; (iii) the people from implementing agencies who will implement the ASP project to extend and replicate the NWASP approach; and, (iv) rural people living in the project area. Activities to reach these stakeholders will include, a high-level policy briefing, a joint Office of Evaluation/Project Management Department presentation to the IFAD Executive Board, a booklet for project staff, and a short television spot for broadcast in the project area.

XI. WORK PLAN

The Completion Evaluation **Schedule** is planned as follows:

Preliminary Visit to Armenia	26 Feb
Review of Draft Approach Paper in Yerevan	5 March
Finalization of Approach Paper.....	15 March
Start Evaluation, Yerevan.....	20 March
Start Repeater Survey, Yerevan.....	19 March
Workshop for Evaluation Feedback & de-Briefing.....	6 April
Circulate Draft Report for Review.....	1 May
Meeting of Core Learning Partnership	early May
Completion of Repeater Survey	31 May
Finalize Report & Recommendations	15 June
Finalize Agreement at Completion Point.....	15 July

Attachment 1 – Summary of Meeting of Core Learning Partners 5 March 2001 Yerevan

1. The purpose of the meeting was to discuss the zero draft of the Approach Paper and to come to a consensus with respect to the key questions, outcomes and outputs of the evaluation.
2. Detailed remarks were made by each participant on three basic questions:
 - **What aspect of your agency’s work should the evaluation study?**
 - **What policies or issues would you like to highlight with Armenian policy makers?**
 - **What are the best features of your agency’s approach that you would like to communicate to others in Armenia and elsewhere?**
3. The points raised have been grouped together and summarized below.
4. **What aspect of your agency’s work should the evaluation study?**
5. Participants, including representatives of WMS, IRP, SHEN, PCU and ACBA, expressed the interest in knowing what is the likelihood that institutions services and infrastructure that they have been responsible for creating through the project will be sustained after the project closes.
6. Some including WMS, PCU, ATG and SPSA would like to know whether the work of the project responded to the needs of the farmers and how the farmers felt about the approaches used.
7. Participants in the meeting indicated that they would like the evaluation to look into the impact of the project, in quantitative terms, on: i) household level conditions; ii) agriculture in the project area; and, iii) the economy in the project area.
8. **What policies or issues would you like to highlight with Armenian policy makers?**
9. Participants in the meeting stressed the need for government strategies and policies to guide the development of the sectors in which they work. They would like the evaluation to provide empirical evidence upon which policy can be based and to motivate policy makers. Areas where project results can be expected to provide material to support policy were cited including:
 - Role of agriculture sector in Armenian economy,
 - Priority of irrigation infrastructure investment,
 - Water management, decentralization of responsibilities for secondary and tertiary structures,
 - Role of non-governmental organizations,
 - Role of grassroots organizations,
 - Land use conservation,
 - Rural finance alternatives,
 - Importance of aid coordination, and
 - Effect of government controls on project expenditure and impact.
10. **What are the best features of your agency’s approach that you would like to communicate to others in Armenia and elsewhere?**
11. Features of the project that Core Learning Partners identified as worth highlighting to others included:
 - Ways project built relationships of trust with rural people,

- Practice of close cooperation with local government,
- Ways project allowed farmers to make decisions (e.g. farmer selection of cultivars),
- Practice of building social structures before physical structures,
- Importance of not promising physical investments as reward for creation of social/institutional structures,
- Flexible in response to changing conditions in country and changing farmer needs,
- Absence of bureaucratic procedures within functioning of PCU,
- Usefulness of economic/financial analysis at farm level to understand impact,
- Allowance of considerable time for water user association development,
- Combination of individual use of loans with collective responsibility for them, and
- Importance of marketing constraints, apparent need for crop insurance.

Attachment 2 – Core Learning Partners, Roles and Responsibilities

Ministry of Food and Agriculture (*Zaven Gevorgyan, Minister*)

Role *Resource Person*

Responsibilities Assist in Identification of Key Questions for Evaluation,
Review and Feedback on Evaluation Approach Paper,
Brief Evaluation Team Leader on GOA experiences and views on NWASP,
Feedback on preliminary findings and recommendations,
Review of final Evaluation Report,
Review and Clearance of Agreement at Completion Point, and
Help identify needs for further dissemination of Evaluation results.

North West Agricultural Services Project (*Gagik Matevossian, Project Director*)

Role Resource Person, mission logistical support,

Responsibilities Assist in Identification of Key Questions for Evaluation,
Review and Feedback on Evaluation Approach Paper,
Brief Evaluation Team on Project,
Ensure project staff and concerned stakeholders are briefed on evaluation objectives and work plan, translation and distribution of Approach Paper,
Help define framework and provide inputs to quantify costs and benefits of IFAD Direct Supervision to PCU,
Provide written inputs describing Project Director perspective on Direct Supervision,
Assist Evaluation Team in Organizational/Logistical Matters Related to Fieldwork,
Feedback on preliminary findings and recommendations,
Review of final Evaluation Report,
Review and Clearance of Agreement at Completion Point, and
Help identify needs for further dissemination of Evaluation results.

Water Management Section, Irrigation Development Project (*Samvel Ghazaryan – Head*)

Role *Resource Person*

Responsibilities Assist in Identification of Key Questions for Evaluation,
Review and Feedback on Evaluation Approach Paper,
Brief Evaluation Team Leader on WMS experiences and views on NWASP,
Feedback on preliminary findings and recommendations,
Review of final Evaluation Report,
Review and Clearance of Agreement at Completion Point, and
Help identify needs for further dissemination of Evaluation results.

Agricultural Cooperative Bank of Armenia (*Stepan Gishyan – Managing Director*)

Role *Resource Person*

Responsibilities Assist in Identification of Key Questions for Evaluation,
Review and Feedback on Evaluation Approach Paper,
Brief Evaluation Team Leader on ACBA experiences and views on NWASP,
Feedback on preliminary findings and recommendations,
Review of final Evaluation Report,
Review and Clearance of Agreement at Completion Point, and
Help identify needs for further dissemination of Evaluation results.

SHEN (Haik Minassian – President)

Role *Resource Person*

Responsibilities Assist in Identification of Key Questions for Evaluation,
Review and Feedback on Evaluation Approach Paper,
Brief Evaluation Team Leader on SHEN experiences and views on NWASP,
Feedback on preliminary findings and recommendations,
Review of final Evaluation Report,
Review and Clearance of Agreement at Completion Point, and
Help identify needs for further dissemination of Evaluation results.

Armenian Technology Group, Seed Producers Support Association (Roger Benton, Arkadi Markarian)

Role *Resource Persons*

Responsibilities Assist in Identification of Key Questions for Evaluation,
Review and Feedback on Evaluation Approach Paper,
Brief Team Leader on ATG and SPSA experiences and views on NWASP,
Feedback on preliminary findings and recommendations,
Review of final Evaluation Report,
Review and Clearance of Agreement at Completion Point,
Help identify needs for further dissemination of Evaluation results.

Water Users Association Union of Ararat (Vardan Movsisyan – Chairman)

Role *Resource Person*

Responsibilities Assist in Identification of Key Questions for Evaluation,
Review and Feedback on Evaluation Approach Paper,
Brief Team Leader on perspective of grassroots organization on NWASP,
Feedback on preliminary findings and recommendations,
Review of final Evaluation Report,
Review and Clearance of Agreement at Completion Point, and
Help identify needs for further dissemination of Evaluation results.

IFAD, Programme Management Department (Klemens van de Sand, Assistant President)

Role *Resource Person*

Responsibilities Assist in Identification of Key Questions for Evaluation,
Review and Feedback on Evaluation Approach Paper,
Brief Team Leader on PMD experiences and views of NWASP Direct Supervision,
Feedback on preliminary findings and recommendations,
Review of final Evaluation Report,
Review and Clearance of Agreement at Completion Point, and
Help identify needs for further dissemination of Evaluation results.

IFAD, Programme Management Department (*Pietro Turilli, Country Portfolio Manager*)

Role *Liaison between IFAD and GOA, Resource Person*

Responsibilities Briefing of Evaluation Team Leader,
Assist in Identification of Key Questions for Evaluation,
Review and Feedback on Approach Paper,
Assist in answering Key Questions,
Help define framework and provide inputs to quantify costs and benefits to IFAD of Direct Supervision,
Provide written input describing CPM perspective on Direct Supervision,
Feedback on preliminary findings and recommendations,
Review of Final Evaluation Report,
Participate in meetings or other activities to finalize Agreement at Completion Point,
Help identify needs for further dissemination of Evaluation results, and
Participate in presentation of Evaluation results to IFAD Executive Board.

IFAD, Office of Evaluation (*Chase Palmeri, Senior Evaluation Officer*)

Role *Coordination and Management of Evaluation*

Responsibilities Identification (with Government and IFAD Staff) of members of CLP,
Consultation with CLP and other partners for finalizing Approach Paper,
Drafting TOR for Evaluation Team Leader and members,
Feedback on preliminary findings and recommendations,
Review of final Evaluation Report, and
Leading process to arrive at CLP consensus on conclusions and recommendations
in

Agreement at Completion Point,
Disseminating Evaluation Report and Agreement,
Prepare presentation of Evaluation results to IFAD Executive Board,
Preparation of Evaluation *Profile*, Evaluation *Insights* and any other
products for communicating results to broad partners.

Attachment 3 – Details of Participatory Evaluation Process

Identification of Participatory Evaluation Team Members

12. The project component coordinators in each *marz* (for IRP, SHEN, ATG, and ACBA) together with the PCU coordinator for that *marz* will identify 5 suitable farmers and 3 implementing agency staff candidates to serve as evaluators. The selected evaluators should be well respected and competent in their work. They should be open-minded, have an ability to communicate well with fellow rural people, and be willing to work as part of a team. The group of selected evaluators should be composed of 50% men and 50% women.

Composition of Evaluation Teams

13. The Facilitator will create one team for each *marz*. Each team will include the 4-5 nominated farmer/evaluators from the *marz*. It will also include 2-3 implementing agency staff/evaluators. However, in order to avoid problems of possible conflict of interest, and to promote learning through cross-fertilization amongst staff, implementing agency evaluators will not serve on the team of the *marz* in which they normally work. The team for Aragatsotn *marz*, for example, will be composed of 5 farmers from Aragatsotn and 2 implementing agency staff from Lori and one from Shirak.

Training of Evaluation Team Members

14. At the beginning of the field work the implementing agency staff evaluators from all three *marz* will assemble in Aragatsotn for a 1-2 day training and testing of village level approaches. Farmers from Aragatsotn will also participate in this training. However, farmers from Shirak and Lori *marz* will be trained later in their own *marz* when activities begin there. In this way no farmer evaluator will be required to travel out of his or her own *marz*, thus minimizing any inconvenience or lost farming time. It will also allow the farmer evaluators in Lori and Shirak *marz* to be trained by their fellow evaluators and the Facilitators after some experience has been acquired and initial difficulties with the approach have been overcome.

Gathering Information at the Village Level

15. From 5-10 villages will be covered in each *marz*. To accomplish this, evaluators will work in pairs or threesomes to gather information at the village level. Each pair or threesome will cover from one to two villages each day for a period of about 4 days. The number of villages to be covered per day cannot be determined until the information gathering approach has been tested. It is likely to depend upon the number of different types of activities that have been implemented in a given village.

16. The techniques for gathering information at the village level to respond to the key questions of the evaluation will be determined by the Facilitator, as will be the formats for reporting the information gathered. It is expected that they will include individual interviews as well as small focus group discussions with beneficiaries sharing common characteristics.

Verifying Information at the *marz* Level

17. Once village level information gathering activities have been completed, representatives from each participating village and all concerned partners or stakeholders at the *marz* level will be invited to attend a ½ day meeting in the project offices - or another suitable location. The evaluation team will present its findings to participants in the meeting for verification, comments and discussion. Representative farmers from one or more villages that were not included in the information gathering process may also be invited to contribute to the meeting to indicate whether the evaluation findings correspond to the experiences of their village with the project.

APPENDIX 2: Summary of Outcomes of Evaluation

**APPENDIX 2: Summary of Outcomes of Evaluation
Presented at Yerevan Seminar – Friday, April 6 2001**

1 INTRODUCTION

1. Preliminary results of the field evaluation were presented at a seminar in Yerevan. High level officials were invited to discuss the presentations made by representatives of the field evaluation teams and the Mission Leader. Attendees at the seminar are listed in Attachment 1.

XII. PRESENTATIONS OF FIELD EVALUATION TEAMS

D. Seed Production

2. During the participatory evaluation our group has studied Seed production activities in Shirak marz. In 7 out of 16 studied Communities Seed production Component has had its activities. We have interviewed 67 farmers, representing different social groups.

3. Simultaneously, other evaluation groups were studying the same component in 5 Communities of Lori marz and 6 communities of Aragatsotn marz. While comparing the results, we came to a conclusion that the situation, concerning Seed production in all Project *marz* is similar, with common achievements and constraints, So what we will recommend for Shirak marz authorities and farmers corresponds to all three *marz*.

4. Totally, Seed production component has expanded its activities in 44 villages of Shirak marz, out of 150, on nearly 1000 ha. In the framework of the Project in 1999, 2 000 t. of 1st generation wheat seed has been produced and 600 t. of potato tubes.

5. In year 2000 the yield was much less, because of the terrible drought.

6. Our group made the following conclusions:

- Though the amount of seed does not correspond to the *marz* demand, but still it helps to smooth the tense.
- There are some Communities where due to Seed production, the quantity of produced seed has not only satisfied the demands of the Community population, but also some incremental yield has been produced.
- The selection of Seed producing farmers is the most prior issue. The farmer must have sufficient skills and experience, tools and equipment, warehouses and irrigated lands.

7. During the interviews we come to a conclusion that that the formation of grass-root seed producers organizations on Community or district level is a demand. As the problems are mainly the same, an organization will be able to solve such problems more easily.

8. Interviewers emphasized the need of cooperation between Seed producers and research organizations.

9. In general Seed production activities in Shirak marz are being carried out satisfactory. But we think that it needs further improvement. For this we suggest the following.

- To establish agricultural insurance system, which would be a strong mechanism against drought, hail and other calamities.
- To organize regular *marz* seminars, during which all the problems should be discussed.
- To provide seed producers with high quality chemicals and fertilizers.

- The seed should be tested and certified and must correspond to local conditions.

10. If we would be able to solve these problems, we believe that Components activities would be much improved.

E. Rural Credit

11. During participatory monitoring in Lori, Shirak and Aragatsotn marz our groups visited 51 Communities and interviewed 1000 farmers, which included beneficiaries and non-beneficiaries, representatives of various social groups, members and heads of Village Grass-root organizations, Heads of Communities. 20% of interviewed people are women.

12. The Bank has had activities in 46 Communities out of 51. It has provided:

- 748 units of credit in Shirak, average loan size is USD 973;
- 688 units of loan in Lori, average USD 787; and,
- 906 units in Aragatsotn, average- 632\$

13. While analyzing the results of evaluation, we came to the following conclusions:

- 1) Short and medium term loans of ACBA have had a positive impact on:
 - the organization of Agricultural production,
 - Increase of production levels and expansion of activities,
 - Procurement of agricultural tools and techniques,
 - A trend to more intensive agriculture,
 - the increase of the arable land size, and
 - the sustainability of crop production.
- 2) At the same time, it turns out that Credit procedures, which are being used by ACBA make some constrains on the way of further expansion of crediting activities, particularly to the involvement of the poorest part of the population in these activities. These issues are:
 - the small amount of the credit on the first 2 phases, and
 - the criteria of evaluation of collateral.
- 3) We think that it would be preferable to create some organization and foundation, which would provide mini loans to the poorest part of the population without collateral.
- 4) We also suggest that the Bank should give some allowances during calamities, prolong the credit.
- 5) We suggest that, if the Borrower has a good crediting history and that the impact on his incomes is noticeable, the Bank should sign a collateral contract for 2-4 years.
- 6) The ACBA branch office of Shirak should be registered practically as soon as possible, or else borrowers now are obliged to reach to Yerevan, spend a lot of money to get their credits.
- 7) Our interviews proved that the Village associations of the Bank are mostly established and sustainable. But in some Communities these associations are formal, only on the paper. (Shirak, Mayisian). Sometimes the decisions are being made not by the Association Council, but only by the Head of the Association.
- 8) In some Communities the number of members of village Associations is more than 50, and it becomes that because of one not orderly person suffers the whole community. We suggest that such Association should be divided into guarantee groups, which will be responsible only for its members.
- 9) It would be preferable that the Bank should count with suggestions of borrowers and improve some of its procedures.

10) But still, we think that in general ACBA has fulfilled its task on a satisfactory level, it is proved by our interviews, where most members of Community gave a very high score to ACBA's activities.

F. Evaluation of Irrigation Rehabilitation and Water Management Activities

14. NWASP, which has been implemented since April 1998, is coming to the end. That is why evaluation groups have been formed, that visited numbers of communities of Aragatsotn, Shirak, Lori marz to find out to what extent the project has achieved its overall objective to improve the living conditions of the rural population. Our evaluation group has mainly focused its activities on IR & WM component of the project.

15. Recommendations and findings made by our evaluation team bare based on our observations and interviews with representatives of communities, including rural population, heads of communities, heads of WUAs and beneficiaries.

16. In Aragatsotn Marz, FET groups have visited the following villages: Ushi, Woskevaz, Karbi, Nigavan, Tsaghkashen, Kuchak, Areg. In Shirak marz-Mayisyan, Marmashen, Karnut, Shirak, Hatsik, Kamo, Arevshat, Meghrashat. In Lori marz-Karmir Aghegi, Odzun, Shnogh, Lernapat, Krashen, Katnagur, Sarahart, Arevshogh, Argut and Darbas.

17. The goal of IR &WM component is to rehabilitate on-farm irrigation systems of communities and to support formation of WUAs and WUA federations.

18. Our evaluation team made the following conclusions, after field works:

- Irrigation is the most prior condition for sustainable farming;
- Rehabilitation of irrigation systems impacts on expanding the under crop area and on a trend to more intensive crops: that gives good benefits;
- Water losses have been reduced by 30 percent;
- It takes less time from a farmer to irrigate his farm;
- The total yield has increased by 10-20 percent;
- WUAs have been created in most communities, that have the legal base to operate and maintain on-farm irrigation systems;
- There have been some changes in the psychology of most farmers, they start to understand that water is a product and they should pay for it;
- Results are more obvious in those Communities were the WUA members cooperate with Heads and members of Community Council;
- One of the main constrains on local level is the absence of water measurers;
- Each year the Government increases water charges, which farmers mainly connect with the existence of WUAs;
- In some communities farmers are not active in participating to WUA meetings, which leads to weak cooperation between the WUA and private water consumers;
- Foundation of WUAs has had a positive impact on water delivery processes, it is now more equal and justified; and
- Water delivery between WUAs being supported from the same main canal sometimes is not even, WUAs located on the beginning of the canal take more water then those at the end of the canal.

19. Our team also came to a conclusion that most issues that WUAs meet, are:

- Because of absence of techniques and tools WUAs sometimes are not able to operate and maintain canals perfectly and also to control water delivery;
- There are obstacles in collecting water charges, which is mainly connected with the psychology of farmers;
- The collected water charge is hardly being enough to cover the cost of the water and practically no money is left for repairing and maintenance of local systems; and

- Water suppliers sometimes provide irrigation water not in time and not according to the demanded quantity.

20. The rate of change of personnel in WUAs is rather high. Specialists, who have got training and consultancy are retiring and sometimes they are being replaced with people without demanded skills and experience.

21. To sum up: The total impact of the component on rural population is positive, but there are many constraints that need to be overcome.

22. During our interviews and conversations community members made following suggestions:

- WUAs must be involved in all processes of rehabilitation of water systems: from the selection of the territory up to the end of the construction,
- Communities should have their own investment in the projects in cash or in kind, so as they should feel themselves as real owners of irrigation systems;
- Special TV programs and other consultancy should be organized for WUA members, with the involvement of specialists and concerned authorities;
- Special training courses should be organized for Heads of WUAs and Staff; and
- More efforts should be made to support foundation of WUA Federations.

23. The main achievement of the component is that practically all social groups benefit from its activities equally.

24. As a proof of a positive impact of the component on Community we can bring the example of Sarahart Community of Lori marz, where a DRB and 3 km of canals have been rehabilitated under the project. The increase of yield as well as the increase of incomes here is obvious. WUA of Sarahart community is very active and productive. WUA has participated in all phases of the work, starting from the design and has had its contribution to the project cost. The rate of water charge collection is one of the highest in the *marz*. Even in year 2000, in the presence of unusual drought, farmers got the opportunity to irrigate their lands four times and save the yield.

25. We think that the experience of Sarahart community, as well as Hatsik in Shirak and some others is worth to be studied and disseminated.

G. Community Development

The report from the Aragatsotn FET in Annex 2 includes a summary of community development activities.

XIII. PRELIMINARY REPORT OF EVALUATION BY MISSION LEADER

H. Impact of Project on Poor Farmers (as in Project Goal)

Irrigation – good

Credit – minimal

Seed – average (but distorted by drought)

Social development – good but energy now being diffused

I. Implementation of Project Principles

(a) Participation of villagers/farmers (harnessing their energy/enthusiasm)

Irrigation – average to good

Social development- average to good

Bank (note: not credit) – average to good (as village association membership was a requirement for loans)

Seed - Low

(b) Grass roots organizations

Irrigation – average to good

Social development - average to good

Credit - average

Seed – none created by Project at village level

J. Impediments to Project Effectiveness

Lack of awareness and confusion at village level on project activities and responsibilities

Market conditions affected by low incomes

Drought and hail (are they normal?)

Bureaucracy E.g.

Flexibility in installation of irrigation schemes and social development projects

Bank processes (temporary and permanent) – notarizing, passporting and *marz* bank licenses.

K. Issues in Project Components

Irrigation

Cost and implementation of construction activities

Sharing of water sources and allocation processes – need for water unions

Uncertainty in use of water charges collected – taxes or fee for service

Social development

Civic action groups are an important part of project activities

Roles of civic action groups

Confusion between functions in small/medium enterprise development:

- financing/banking
- monitoring
- business support and training

Credit

Borrowers are tailoring loan requests to needs and becoming more sophisticated.

Do village associations need a more substantial role to maintain enthusiasm?

Need for clear development path for borrowers requiring more funds (graduate to full banking system).

Credit functions spread across three components while only one has specialist credit skills – slowing development of credit organization.

Impact of weather conditions (drought, hail) – should terms be extended or insurance encouraged.

Timing of loan disbursements to suit cost-effective buying and selling rather than the same repayment times for all farmers.

Seed

Excellent attempts to let poor farmers get benefits of better quality seed.

Seed multiplication issues being confused with seed variety (US cf. other sources) issues.

Benefits from (and existing examples of) village level seed producing groups for technical inputs and marketing. E.g. Vadablur, Lori.

L. Preliminary Thoughts on Issues To Consider for Future Projects/Activities

All components

Farmers in project villages are clients of implementing agencies, not beneficiaries.

All grassroots organizations need time to develop, including training in motivation and organization.

Fast implementation may have outpaced development of grassroots organizations – affecting sustainability.

Grassroot organizations need the opportunity to participate in all aspects of implementing their own projects.

Additional motivation and training should increase awareness of the projects at village level.

Irrigation

Opportunities to implement activities in different ways. E.g. Chochkan, Lori.

Government of Armenia needs to better understand role of WUA – they are not tax collectors.

Social development

Civic action groups should continue to encourage co-financing.

Civic action groups are an important part of project activities.

Credit

Need for emphasis on savings culture in credit activities to increase funds available for lending (to start to overcome bad experiences of villagers in early 1990's).

Use village association as basis of small loan revolving funds to strengthen confidence in savings system and mobilize funds within village to increase credit availability.

Issue for many poor farmers is providing suitable collateral, not ability to repay.

Use smaller credit subgroups within village association (based on current networks).

Pilot granting of small ACBA loans to farmers with inadequate collateral but group guarantee.

Seed

Major savings will be made if grain seeds can be sown at lower rates.

A major extension effort should be made to show that graded and treated US and Armenian grain varieties can all be sown at lower rates with subsequent cost savings and benefits from using certified seed

ATG should focus on providing technical support to multiplication, growers and seed handling.

Apply same efforts to growing super elite seed and multiplying wheat seeds for local, Russian and US varieties to suit different needs

Consider building grass roots organization for seed producers, which will lead to *marz* and central organization.

Seed marketing/distribution functions could be systematically transferred to grass roots seed producer organizations based on village/district groups.

Attachment 1: Participants in Yerevan Workshop

Andranik Hakobyan	Head of Staff of Prime Minister
Sergey Poghosian	Representative of Central Bank of ROA
Enok Avetisyan	Deputy Minister of Agriculture
Rubik Davtian	Head of Department, Ministry of Finance and Economy
Gagik Simonian	The Deputy Chairman, State Committee of Water Resources of ROA
Hrair Karapetyan	Marzpet of Aragatsotn
Aram Kocharian	Deputy Marzpet of Lori (Marzpet was overseas)
Movses Manukian	Head of Agriculture Department, Shirak
Arusiak Vardanian	Member of staff of World Bank Representative, Armenia
Robert Ziroyan	ISSHD Project Coordinator in Agriculture, UNDP
Ms Bella Karapetian	Member of staff of World Food Program Representative, Armenia
Ashot Kirakosian	Executive Director of Armenian Social Investment Fund
Ashot Voskanyan	UNDP – Coordinator of FAO Agricultural Strategy
Haik Minasian	Director of Shen NGO
Roger Benton	Director of ATG
Arkadi Margaryan	Director of SPSA
Hakob Andreasian	Deputy Director of ACBA
Mrs Anush Hayrapetian	Farmer, Voskevaz, Aragatsotn presenting observations from Shen field evaluation
Gagik Djandjughazian	Farmer, Amrakits, Lori presenting observations from Irrigation Rehabilitation field evaluation
Artsrun Gaboian	Farmer, Karnut, Shirak, presenting observations from ACBA field evaluation
Araik Ghazarian	Farmer, Beniamin, Shirak presenting observations from Seed field evaluation
Ms Mariam Esayan	Director, UMCOR, Aregak NOG
Hakob Terzyan,	Director of Aniv NGO
Gagik Matevosyan	Director, NWASP
Hakob Nakhshkarvan	Marz Monitoring Officer, Shirak
Gagik Voskanyan	Marz Monitoring Officer, Aragatsotn
Samvel Mkrtchvan	Marz Monitoring Officer, Lori
Vakharshak Kanayan	PCU M&E adviser
Anatoli Safaryan	PCU M&E adviser
Artavazd Hakopyan	PCU Irrigation adviser
Ruben Avetisyan	PCU Agricultural adviser
Armen Petrosyan	PCU Banking adviser
Ashot Asmangulyan	PCU Civic works adviser
Alexander Kalantazian	PCU Interpreter