PROJECT COMPLETION REPORT VALIDATION
RURAL AREAS ECONOMIC DEVELOPMENT PROGRAMME
REPUBLIC OF ARMENIA

October 2011

Independent Office of Evaluation of IFAD

A. Basic Data

Basic Project Data				**Approval (US$ m)**		**Actual (US$ m)**	
Region	NEN		Total project costs	28.7		37.1	
Country	Armenia		IFAD Loan and % of total	15.3	53.3%	15.8	42.6%
Loan Number	653-AM		Borrower	2.3	8.0%	2.4	6.5%
Type of project (sub-sector)	Rural Development		OFID	5.0	17.4%	5.0	13.5%
Financing Type	F		Co-financier: USAID	0.5	1.7%	-	-
Lending Terms[1]	Highly concessional		Co-financier: Participating Financial Institutions (PFIs)	1.8	6.3%	-	-
Date of Approval	December 2004		Co-financier: Rural Finance Facility (RFF)	0.1	0.3%	5.2	14.0%
Date of Loan Signature	January 2005		From Beneficiaries	3.7	12.9%	8.6	23.2%
Date of Effectiveness	July 2005		From Other Sources				
Loan Amendments	2[2]		Number of beneficiaries (if appropriate, specify if direct or indirect)	31,800 direct (PPMS)		73,457 (PCR)	
Loan Closure Extensions	None		Cooperating Institution	UNOPS		UNOPS until 2008 IFAD from 2009	
Country Programme Managers	H. Pedersen[3]		Loan Closing Date	March 2012		March 2010 (PPMS) December 2010 (PCR)	
Regional Director(s)	M. Bishay N. Khouri		Mid-Term Review	June 2008		December 2008	
PCR Reviewer	K. Atanesyan		IFAD Loan Disbursement at project completion (%)			99% (LGS)	
PCR Quality Control Panel	A-M. Lambert						
Please provide any comment if required:							

Sources: Project and Portfolio Management System of IFAD; Loans and Grants System of IFAD, Project Completion Report, October 2010; Report and Recommendation of the President (EB 2004/83/R.33/Rev.1).

[1] There are four types of lending terms: (i) special loans on highly concessional terms, free of interest but bearing a service charge of three fourths of one per cent (0.75%) per annum and having a maturity period of 40 years, including a grace period of 10 years; (ii) loans on hardened terms bearing a service charge of three fourths of one per cent (0.75%) per annum and having a maturity period of 20 years, including a grace period of 10 years; (iii) loans on intermediate terms with a rate of interest per annum equivalent to 50% of the variable reference interest rate, and a maturity period of 20 years, including a grace period of 5 years; (iv) loans on ordinary terms with a rate of interest per annum equivalent to one hundred per cent (100%) of the variable reference interest rate, and a maturity period of 15 to eighteen 18 years, including a grace period of 3 years.

[2] One loan amendment for reallocation of funds was agreed on 10.06.2008; the second amendment for change in supervision management was agreed on 29.02.2009.

[3] CPM for the Republic of Armenia since 14 January 2004.

B. Project Outline

1. Project area: The geographical focus of the RAEDP at design was the mountain areas of seven *marzes* (provinces).[4] These marzes represent some 80 per cent of the land area of Armenia (29,000 sq. km) and are home to 40 per cent of the total population of 3.2 million. The marzes within the programme are among the poorest in the country with an overall poverty level of 34.6 per cent and extreme poverty of 6.4 per cent.

2. Project rationale and objectives: The concept for the Rural Areas Economic Development Programme (RAEDP) was based on the Government's Poverty Reduction Strategy Paper (PRSP), IFAD's Country Strategy Opportunities Paper (COSOP) and previous IFAD-funded projects: Irrigation Rehabilitation Project (IRP); North-West Agricultural Services Project (NWASP); and the Agricultural Services Project (ASP). The goal of RAEDP was *to increase sustainable employment and incomes among rural people in the mountain areas of seven disadvantaged marzes (provinces) of Armenia*. The objective subsumed under this goal was to *stimulate growth of rural enterprise activity in the defined programme area*. The programme strategy was designed to deliver an inter-related package of business development training and loans for investment and working capital for small and medium on- and off-farm private enterprises and grant financing of commercially justifiable small-scale infrastructure in the public domain and through public-private partnerships.

3. Project "target" population included unemployed rural men and women, small and medium-sized farmers, rural entrepreneurs, agro-processors and traders and non-agriculture SMEs. The approach used to reach the target group was an investment response mechanism, primarily through the commercial financial sector.

4. Project components: The project had four components:

(i) *Rural Finance Facility (RFF); 59 per cent of total programme cost.* The main objective of the component was 'to stimulate sustained growth of rural economic activity in the programme area through improved access to appropriate financial services for small and medium-scale rural producers and enterprises'. This was to be achieved through the establishment of the autonomous unit, the Rural Finance Facility (RFF), under the Ministry of Finance and Economy.

(ii) *Rural Business Intermediation Service (RBIS), no direct financing from the program.* The objective of the component was 'to develop a network of RAEDP-accredited Rural Business Intermediation Service Providers (RBISP) in the programme area'. The objective was to be achieved by providing identified RBISP with training in (i) analysis of business development options; (ii) market research and development services; (iii) technology options; and (iv) general business services, accountancy, tax and food hygiene/safety and environmental regulations. This component was to be financed in collaboration with USAID-funded Armenian Small and Medium Enterprise Market Development Project (ASME). The RBISP were supposed to assist potential programme clients with: (i) assessment of the commercial feasibility of an investment idea; (ii) preparation of business plans; and (iii) linking clients with a RFF pre-qualified Participating Financial Institution.

- *Commercially-Derived Infrastructure (CDI), 36 per cent of total programme cost.* The objective of the component was 'to improve operational efficiencies in supply/value chains by alleviating constraints imposed by the condition of essential infrastructure'. The programme was supposed to provide contributory grants in support of investments for infrastructure vital for enhancing private investments for expansion of existing enterprises and establishing new ones.
- *Programme Analysis and Administration Unit (PAAU) Component, 5 per cent of total programme cost.* PAAU was formed to oversee operational aspects and day-to-day

[4] The seven marzes are Aragatsotn, Gegharkunik, Lori, Shirak, Syunik, Tavush and Vayots Dzor.

programme management and was also responsible for the planning, coordination and review of programme outputs and effectiveness. The PAAU had no direct implementation responsibility, instead, it had the administrative and financial autonomy to contract with third parties for programme implementation requirements. *Programme Coordination Committee (PCC)* was responsible for overseeing the programme activities including policy direction and overall oversight of the RFF operations. The PCC was chaired by the Minister of Agriculture and board members included representative from MOF, Chairman of the Chamber of Commerce, Chairman of the Bankers' Association, Ministry of Trade and Economic Development and *marz* governors. The RAEDP Programme Director was the secretary of the board.

5. Amendments: (i) amendment for reallocation of unallocated funds was requested by the programme on 14 April2008 and agreed to by IFAD on 10 June 2008. The funds were reallocated to CDI and operational cost; (ii) amendment for change in supervision arrangement from UNOPS to direct supervision by IFAD was requested by IFAD on 05 December 2008 and was agreed upon by the GoA on 29 February 2009.

Table 1. Programme financing (US$ '000)

Category	IFAD			OPEC Fund			USAID			GoA			GoA Taxes			Clients			RFF			PFIs			Total		
	Alo	Dis	Rel	Alo	Dis	Rel	Alo	Dis	Rel	Alo	Dis	Rel	Alo	Dis	Rel	Alo	Dis	Rel	Alo	Dis	Rel	Alo	Dis	Rel	Alo	Dis	Rel
A. Rural Enterprise Finance																											
1) Rural Finance Facility Refinancing	920	895	-345													273	743	470	0	465	465	183	0	-183	1386	2027	641
2) Rural Finance Facility Subsidy	244	139	-105				222	0	-222				22	20	-2				128	88	75				556	142	446
Subtotal Rural Enterprise Finance	1164	1034	-450	0	0	0	222	0	-222	0	0	0	22	20	-2	273	743	470	128	552	544	183	0	-183	1942	2169	227
B. Rural Business International Service	41		-41				176	0	-176																217	0	-217
C. Commercially Driven Infrastructure	400	555	155	500	500	0				160	162	2	190	203	13	95	158	63							1245	1378	133
D. Programme Analysis and Administrative Unit																											
1) Year Budget	137	145	8				123	0	-123				131	180	49										391	325	-66
2) Audits (7)	28	36	8										47	48	1										75	84	9
Subtotal Programme Analysis and PAAU	165	181	16	0	0	0	123	0	-123	0	0	0	178	228	50	0	0	0	0	0	0	0	0	0	466	409	-58
Total	1540	1820	280	500	500	0	521	0	-521	160	162	2	210	251	41	368	901	533	128	552	544	183	0	-183	2820	3706	886

Source: PCR.

C. Main Assessment – Review of Findings by Criterion[5]

Project Performance

C.1 Relevance

6. The project objectives and design were relevant to the country's poverty reduction strategy (PRSP) priorities, IFAD's strategy in the country as reflected in the Country Strategic Opportunities Paper (COSOP) and the needs of the beneficiaries.

7. The programme was supposed to address some of the most important reasons for underperformance of the agriculture sector in Armenia: (i) limited availability of financial services; (ii) poorly developed supply of agricultural input; (iii) poor status of social and productive infrastructure; and (iv) lack of appropriate skills in the work force (former urban settlers). In this context, the project's inter-related package of business development training, loans for investment, and

	IFAD		OPEC Fund		USAID		Clients		Financing Institutions		Refinancing Facility		GoA Taxes and Government Budget		Direct Taxes		Total		Local Est. Exc. Rate	Local Est. Direct & Taxes	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%			
A. Rural Enterprise Finance																					
1. Rural Finance Facility Refinancing	920.92	67.0					273.20	20.0	182.93	13.9							1386.60	48.3		-	1386.60	-
2. Rural Finance Facility Subsidy	244.14	44.0			221.4	39.8					107.6	19.4			21.75	3.9	555.9	19.4	222.9		333.0	33.0
Subtotal Rural Enterprise Finance	953.46	65.9	-	-	221.4	15.3	273.20	19.2	182.93	12.5	107.6	0.7	-	-	21.75	0.2	1446.15	50.4	222.9		1419.90	33.0
B. Rural Business International Services	41.04	18.9	-	-	176.11	81.1	-	-	-	-	-	-	-	-	-	-	217.15	0.8	117.98		99.17	-
C. Commercially driven Infrastructure	440.00	35.4	500.00	40.3	-	-	95.00	7.7	-	-	-	-	150.00	12.1	190.00	15.4	1245.00	43.2	477.00		573.00	190.00
D. Programme Analysis																					

[5] For definition of and guidance on the criteria, please refer to the Evaluation Manual: http://www.ifad.org/evaluation/process_methodology/doc/manual.pdf.

financing of commercially derived infrastructure was relevant and timely. The programme was also relevant in addressing COSOP priorities by focusing its area-specific interventions on the most disadvantaged mountainous parts of the country.

8. The PCR lists a few additional indicators of programme relevance, such as the loan size category, but it does not explain the relevance of this factor and does not provide any comparator or a baseline. The mere fact that loans were more or less equally distributed among three size categories (below US$10,000; 10,000-50,000; and 50,000-150,000) does not suffice in this regard. In terms of volume, US$8.4 million of loan resources (70 per cent of the total) were allocated to larger category of loans (US$50,000-150,000) which points to certain bias towards larger enterprises. Other indicators of programme relevance, cited by the PCR (creation of incremental markets; job creation; expansion of financial services to the rural areas; specific outputs in the rural infrastructure component, resulting in better services and reduced costs of doing business) provide useful information about positive achievements, but are related to the programme effectiveness rather than relevance aspect.

9. PCR points to several design issues identified at the completion through beneficiary interviews: (i) some loan proceeds were received after the respective season had started; (ii) durations of investment loans and the grace period were too short for investments with long gestation periods; and (iii) change in exchange rate made loans very costly for some of the borrowers. The universal explanation provided in the PCR for all these issues (exhausting the programme funds 21 months ahead of planned schedule) needs further clarification and explanation. The RBIS component also had some design issues, acknowledged in the PCR, namely the fact that the RBISP did not have the expected relevance for small investors both in respect to business planning and technical advisory service.

C.2 Effectiveness

10. The programme documents (Report and Recommendation of the President, and the programme Loan Agreement) describe the goal and objective of the RAEDP as (see also paragraph 2):

- increasing sustainable employment and incomes among rural people in the mountain areas of seven disadvantaged *marzes*, (the goal); and
- stimulating growth of rural enterprise activity in the defined programme area (the objective).

11. While both the goal and the objective are valid and relevant in general, there seems to be a definitional confusion, as the latter (normally not one, but several objectives) is supposed to be the subset of the former, whereas in this case the objective seems to be the means of achieving the goal. For the purpose of the review, this PCRV will refer to the goal and objective as such, but treat them as separate objectives.

12. Achievement of the results was planned to be measured through the following indicators:

- Goal: (i) reduction in number of rural people living on less than US$2/day; (ii) increase in household asset ownership; (iii) reduction in the prevalence of under-height for children below 5 years of age.
- Objective: (i) number of enterprises operating after three years; (ii) revenue growth of enterprises; (iii) number of jobs generated by small and medium enterprises; (iv) number of applications received/accepted by PFIs, and (vi) percentage of RBISP assisted.

13. None of the indicators identified baselines or target benchmarks, thus making it difficult to quantify the actual achievement. The PCR reports achievement of the above goal and objective based on the following information/results:

- Goal: The programme contributed to reducing the poverty from 34.6 per cent at AR (2004) to 23.5 per cent at PCR (2008). The extreme poverty dropped from 6.4 per cent to 3.1 per cent over the same period.

- Objective: (i) 124 enterprises operating after three years; (ii) Revenue growth of enterprises; (iii) 2,090 jobs generated of which 775 were occupied by women; (iv) 322 applications were accepted by PFIs of which 27 were for women; and (v) 16 RBISP trained.

14. The above information is not always directly relevant to programme effectiveness and is at times selective. Attribution of nationwide poverty reduction in Armenia from 2004-08 to the relatively small IFAD loan in selected rural areas is misleading. The PCR also seems to be selective in identifying the period when the poverty reduction happened, using 2008 as the cut-off date, whereas poverty levels in Armenia increased significantly in the aftermath of the global financial and economic crisis. Most importantly, even if the 2004-08 period is accepted as the proper one to be measured (to minimize the impact of exogenous factors), the PCR still does not measure poverty reduction in the programme marzes, but does so at the national level – although both growth and poverty reduction were driven mainly by urban centres' economies. Also, the result of "revenue growth of enterprises" is not quantified, and the numbers of RBISP trained is not a result but rather an output that does not mean achievement of result by itself.

15. At the same time, the PCR does contain a wealth of useful information (which is often misplaced in the report under different headings) on the achievement of specific positive results that are directly related to the goal and the objective of the program, such as the number of new jobs created, number of enterprises, etc. The value of these achievements vis-à-vis investment is discussed in the next section of programme efficiency.

16. The PCR also lists achievement of results by components (see programme results chain in Annex 1):

- RFF component stimulated the expansion of rural financial outreach in volume (from US$22 million to US$82 million) and presence in rural areas (through establishment of 25 additional rural branches). RFF loans generated a total of 2,090 jobs of which 1,000 were permanent jobs with an average yearly earnings of US$3,095 (higher than national average of US$2,592 for agriculture workers but lower than the national average of US$3,216 for workers in the manufacturing industry). The PCR also reports growth in gross agriculture output by 27 per cent as a result of shifting from low value stable crops to high value horticulture crops, increase in milk production, and growth in food processing industry – all areas supported by the programme.
- RBIS component was co-financed by the USAID-funded Armenian Small and Medium Enterprise Market Development Project (ASME). ASME identified 16 Rural Business Intermediaries Service Providers (RBISP) anchored at the Agricultural Support Regional Centres (ASRC) and supported them with training in business development during the early part of the programme implementation. The RBISP assisted potential borrowers with: (i) assessment of the commercial feasibility of investment ideas; (ii) preparation of business plans; and (iii) linking them with the RFF pre-qualified Participating Financial Institutions (PFIs). The services of RBISP were mainly required by legal entities applying for medium and large investment loans. A 2009 survey of 208 villages within the programme area shows the availability and appreciation of advisory services for primary producers (table 2).

Table 2. Availability and Quality of Advisory Service

Service Providers	Percentage Availability	Good	Average	Poor	Location to Nearest Service (km)
Agricultural Support Regional Centres	76	22	72	6	18,0
Agronomy	54	42	55	3	1,8
Agricultural Cooperatives	4	64	18	18	0,5
Veterinarian	99	53	45	2	1,4

Source: PCR.

- CDI component upgraded infrastructure facilities valued at an aggregate US$10.2 million across 62 rural communities, targeting 86,408 people (table 4). This component contributed to the achievement of the RAEDP goal, in particular with irrigation projects creating the conditions for small primary producers shifting from low to high value crops and through the economic multiplier effect benefiting the wider rural economy. The PCR assessed that in general these investments had a significant impact on improved livelihood for the rural population. These included savings when purchasing inputs (e.g. gas tanks, drinking water, agricultural inputs or vehicle spare parts) and time savings (monetized as unskilled labour wages) that were considered in the Financial and Economic Analysis.

C.3 Efficiency

17. The PCR provides rich discussion of programme efficiency, using multiple sources and instruments. A draft programme economic impact assessment (PEIA) complements PCR with great wealth of data related to programme outputs and impact.

18. RFF: The average interest rate charged by the participating financial institutions (PFI) was around 12 per cent. All loans were denominated in US$. The PCR argues that this can be considered an efficient rate compared to the hypothetical situation if the loans were denominated in Armenian Drams (AMD), which would have been at the rate of 18-20 per cent. However, the PCR does not provide market comparison of interest rates and loan availability, making this argument not entirely convincing. In addition, the fact that the exchange risk was borne by the programme's client group in the absence of a hedging mechanism led to significant costs imposed on the clients, as the exchange rate varied significantly during the programme implementation (table 3). These costs seem to have at times exceeded the potential benefits of lower exchange rate. This particularly affected the borrowers who took loans in 2008 and early 2009, accounting for around one third of the programme's borrowers.

Table 3. US$ to AMD Exchange Rate during Programme Implementation

Variation Over the Year	2006	2007	2008	2009	2010*
Average	423	343	306	363	384
High	437	364	311	388	404
Low	363	302	301	305	368

Source: PCR.

19. The total loan portfolio at risk at PCR was 2.5 per cent, compared to 14 per cent for the financial sector as a whole. Over the programme period non-eligible loans identified by RFF's monitoring amounted to 5.6 per cent of all loans.

20. The PCR notes that the average cost of creating each of the incremental 2,090 jobs was US$5,853 against refinanced loan value, and US$9,400 including equity contribution, and stresses that this cost compares well with other similar (World Bank and Millennium Challenge Corporation) types of interventions in Armenia and with similar IFAD interventions in the region (Moldova, Macedonia and Romania). However, the report does not provide the actual value of the comparator costs. The cost of US$9,400 per job that pays on average US$3,000 can be considered efficient if these jobs are sustainable in the long term. This aspect is not fully covered in the PCR section on efficiency. Other sections of the PCR note that less than half of the new jobs (1,000) were permanent, the rest were temporary, hence further increasing the cost of creating sustainable new jobs.

21. The PCR provides detailed analysis of Financial Internal Rate of Return (FIRR) and Economic Internal Rate of Return (EIRR), arriving at FIRR of 30 per cent and EIRR of 39 per cent. These can be considered as very efficient returns to investment. PCR acknowledges however that this is due to considerable sunk cost in the form of existing building, underutilised equipment, and existing orchards in need of rehabilitation. A preliminary look at the analysis underpinning these conclusions shows that

it might be based on somewhat overly optimistic assumptions, which would warrant a more detailed discussion at more in-depth evaluation stage.

22. RBIS: The programme did not finance the provision of rural business intermediation services, and the cost was borne by USAID-funded ASME. PCR stresses however that the service was used mainly by larger borrowers and had the PAAU and RFF facilitated the use of RBIS by smaller clients, the outcome of the programme would have increased in term of returns, particularly for small investments.

23. CDI: The design/construction and the supervision/construction cost ratios represented 3 per cent of total investment cost. PCR notes that these ratios compare well with other in-country similar investments. PCR adds that the average cost per beneficiary was US$115 or US$157,285 per community-based investment that is within acceptable limit, without specifying what are the acceptable limits, what is the basis and comparators. The highest cost per beneficiary is recorded for investments in irrigation (US$228 per beneficiary). The cost/ha of incremental irrigated land (3,072 ha) is largely variable between US$360 in Lori and US$2,727 in Tavoush marzes, the highest values occurring in connection with extensive pipe re-routing in order to convert the existing pumping systems into gravity, resulting in operational savings.

Table 4. CDI Investment Type, Cost and Outreach

Type of Infrastructure Investment	Outreach			Programme Investment Cost (US$)		
	# Communities	# Households	# HH Members	Total	Cost per Beneficiary	Cost Per Community
Water Supply	13	2 610	9 567	918 522	96	70 656
Road	7	7 643	24 721	2 041 499	83	291 643
Irrigation	18	5 898	20 672	4 712 895	228	261 828
Gas	27	8 702	33 665	2 550 613	76	94 467
Total	65	24 853	88 625	10 223 529	115	718 594

Source: PCR.

24. PCR cites detailed analysis of FIRR and EIRR, conducted within the framework of the programme economic impact assessment (PEIA). The overall net return at the time of maturity in 2018 from the CDI was expected to be US$7.33 million with a FIRR of 11 per cent and a financial net present value (FNPV) at 11 per cent of US$0.720 million. The EIRR was 21 per cent and the economic net present value (ENPV) at 12 per cent was 9.1 million. These results are based on the utilisation of the infrastructure at maturity of the irrigation (full yields) schemes in year 2017. These returns indicate efficient use of capital matching/exceeding the opportunity cost of money (for economic returns) which has been set at 12 per cent as well as the annual GDP (6.7 per cent average per annum over 2005-2009) and inflation (average of 4.2 per cent over 2005-2008) indicating a strong contribution to the economic growth. PCR also notes some shortcomings, such as delays in completing a major irrigation scheme (1,095 ha) in Tavoush marze because of problems in the design works and the termination of a contract for pipe laying. The shortcomings in design works resulted in significant - more than 40 per cent - budget overrun which have been partly covered by project funds (up to 30 per cent increase) and by additional GoA funding.

25. The PCR notes that the share of cost of the program implementation and management was relatively high - 4.5 per cent of total disbursed funds and 10.6 per cent of the IFAD loan, but does not provide a comparator value (local or regional) to support that statement. The PCR argument that the programme's completion 21 months ahead of schedule indicates a good financial disbursement performance is generally accepted, yet it is neither related to nor is counterbalancing the fact of high management cost of the program.

26. Overall, the programme was implemented in an efficient manner, some shortcomings notwithstanding. However, as acknowledged in the PCR, a closer collaboration between the components in promoting on farm investment would likely have brought forward the benefits and

increase the efficiency of the programme outcomes. A more proactive programme approach in facilitating RBIS to small investors emerging as commercial enterprises would have likely increased the efficient use of invested capital. Finally, a more proactive monitoring of refinanced investment loans would have resulted in earlier results which would have led to better economic returns from the investments.

Rural Poverty Impact

C.4 Impact

(a) Household Income and Net Assets

27. PCR and other project documents report increased revenue for families of 2,090 persons occupying new jobs; owners of the 306 enterprises and 538 farmers benefiting from new markets; and 4,355 benefiting from irrigation, implying improvements in level and quality of nutrition and affordability of health and education services for a total of 26,261 persons from 7,289 households. Indirectly, another 15,715 households with 55,708 members increased their disposable income as a result of savings from the infrastructure development. PCR expected the total number of persons increasing their disposal income to increase to 98,069 persons from 27,317 households upon completion of the on-going construction of infrastructure. According to the PCR interviews, project beneficiaries (farmers benefiting from new market opportunities and irrigation infrastructure) indicated growing savings that were used for procurement of household assets. However, this information seems to be anecdotal, i.e. not based on survey data.

28. PCR assesses that the overall assets of enterprises in receipt of the 306 performing loans increased from US$20 million to US$60 million. This increase is comprised of repayment of the loan capital and increase in the market value of the enterprise. Most of the enterprises supported under the programme had considerable underperforming assets (sunk cost) which increased their productivity after the investment which in turn increased their assets. The 4,355 farm-households benefiting from the investment in irrigation infrastructure have experienced an increase in the value of land from US$3,500 per ha before irrigation to US$8,500 per ha. The market value of an average rural house connected to natural gas increased from US$15,000 to US$18,000.

(b) Human and Social Capital and Empowerment

29. The programme contributed to improving the human capital through (i) capacity-building activities and (ii) investment in infrastructure. The former was presumably achieved through the RBIS component (PCR is not explicit about it), which, according to the PCR, contributed to understanding and enhancement of entrepreneurial capability among individuals and SMEs in receipt of a refinanced loan.

30. However, the PCR also reported (in a different section) that the 16 RBISP trained by the programme mainly contributed to advising medium and large enterprises in receipt of larger loans (over US$50,000), hence somewhat limiting the capacity building potential of this component. Nevertheless, the sheer fact of hundreds of loans being disbursed and implemented using business plans did effectively provide evidence of “learning by doing” by the beneficiaries.

31. PCR notes that infrastructure investment in roads and water and gas supply represented a potential improvement in accessibility and communications for local social services (schools, medical offices, postal offices, train stations, etc.), contributed to improvement of health, and reduced the manual work in collecting water and fuel. This is a plausible conclusion yet it is not supported by evidence. The draft program economic impact assessment (PEIA) notes that availability of natural gas supplied to the rural households reduced health risks as a result of improved heating and reduction of air pollution from using manure and wood as fuel. At the time of PCR, the local administrations succeeded in mobilizing resources for the installation of centralized gas heating in 30 per cent of the schools/kindergartens in the RAEDP targeted communities. The example of CDI component

implementation led to collective action by citizen groups requesting their respective municipalities to apply to the programme enabling them to benefit from gas and water connections.

(c) Food Security and Agricultural Productivity

32. The PCR stresses that although availability of sufficient quantities of food was not an issue during AR, access to food was an issue for the extremely poor. The PCR observes the decline in extreme poverty at the national level from 6.4 per cent (2004) to 3.1 per cent (2008) and partly attributes this to the programme. While this might be true, as the programme was operating in the generally poorer marzes of Armenia, it would have been useful to avoid attributing changes in national statistics to a regional programme, and instead develop proper metrics at the programme level (also see paragraph 14).

33. According to the PCR, the project contributed to increase in food security through increased family revenue, implying improvements in level and quality of nutrition and affordability of health and education services for a total of 26,261 persons from 7,289 households. The PCR also quotes a2009 survey of 208 villages (also see paragraph 27) within the programme area that showed that veterinarian service is available in most villages and the quality of service is rated above average. While this was an important factor for productivity, the programme did not contribute directly to provision of these services. The PCR argues that the effect was indirect – through demand created by refinancing expansion agriculture activities, with the effect of increased productivity. What is clear from the statistic provided through the programme documents, is that medium and large milk producers started using more veterinarian services as their herds increased, which in turn led to productivity gains. The PCR reports increased productivity of 44 per cent in dairy farming and 50 per cent in horticulture. It is estimated that around 6,200 farmers have shifted from low value field crops to cultivation of high value crops to meet the incremental demand from cold stores and processing plants.

(d) Natural Resources and Environment (including climate change issues)

34. The most noticeable positive impact on the environment was the reduction of illegal firewood harvesting as a result of availability of natural gas as alternative fuel. The projected annual savings in firewood across the 27 targeted communities are 39,000 cubic meters, corresponding to an area of about 56 ha of forest. If verified, this is an important result – especially in the context of Armenia's scarce forest resources and on-going deforestation. The PCR however does not indicate the source of this calculation.

(e) Institutions and Policies

35. The programme carried strong emphasis on institutional development and achieved some important results in this area. RFF contributed to better accessibility of financial investment capital in the rural areas through (i) expansion of financial outreach and (ii) promotion among the PFIs of a shift from collateral lending to a more business oriented lending approach. There is ample information in the project documentation to support the first result and show that local banks indeed expanded visibly in rural areas. According to the Central Bank data, RFF capital investment of US$24.1 million stimulated increase in lending of PFIs own resources in rural areas from US$22 million at AR to US$82 million at PCR, or a 278 per cent increase. The PFIs branch network grew from 49 to 74 branches. In addition, programme approach of supporting large investment loans for key drivers of value chains increased the demand for raw material, that have developed into several contract farming arrangements benefiting thousands of primary producers. As for the shift from collateral-based lending, which is an important development with the potential of spill-over effect in other than agriculture areas, the PCR does not provide evidence to that account.

Other Performance Criteria

C.5 Sustainability

36. Overall, the programme and its achievements seem to be reasonably sustainable, with the biggest risk to sustainability coming from the ability of RFF to attract other sources of financing in the longer term. Programme documents (PCR and PEIA) provide a detailed assessment of sustainability at the levels of: (i) continued access to debt financing; (ii) provision of business development service; (iii) nonfarm, off- and on-farm based enterprises; and (iv) management and maintenance of infrastructure interventions.

37. Access to debt financing. Assuming that the present structure of the refinanced loan portfolio is repeated using revolving funds it would result in accumulative refinancing estimated at US$25 million at the end of the grace period. The earnings from refinancing investments are retained by RFF for payment of interest on IFAD loan and its operational cost. PCR notes that due to the drop in LIBOR starting in 2008 the income for RFF's operation was not sufficient and it was decided to fix RFF's spread on refinanced funds at a flat rate of 4 per cent that would ensure RFF's sustainability.

38. Business development services. PCR reports that the programme support to RBIS for preparation of business plans led to increased appreciation of this tool both by the PFIs and among borrowers. The PCR does not, however, describe the dynamics of business services usage by end customers, and its link with concrete outcomes, such as productivity increase, or business profitability. PCR claims that there is increased demand for this service thus enabling business service providers to include it as part of their permanent products ensuring sustainability of this service, but does not substantiate or back it up with specific facts.

39. Enterprises. The sustainability of the enterprises supported by refinanced investment loans appears to be relatively high. This is reflected through generally positive dynamics in a number of indicators such as annual growth in sales, profits, hiring of additional staff, gradual growth of the business and by increase in retained earnings and fixed assets. The PCR also acknowledges that the biggest threats to these signs of sustainability are lack of competitiveness and poor access to markets.

40. Infrastructure. PCR provides evidence that organisational arrangements at the local level (e.g. water user associations) are in place to undertake maintenance and replacement of equipment and fixed structures, albeit with continued reliance on state subsidies. Operation of the completed gas networks is managed by a well-known company with an established successful record in this area. Water connections and collection of fees are carried out by the respective Municipalities, who re-value the schemes as fixed assets on their balance sheet at final hand-over and appoint a dedicated staff for system operation, therefore indicating likely sustainable operation. The rural road network is mainly under the ownership of the marz administrations but they are not likely to be able to finance maintenance without central government subsidies, thus somewhat diminishing sustainability.

C.6 Innovation and Scaling-up

41. The programme featured three innovative approaches including: (i) RFF; (ii) large loans for enterprises driving value chains; and (iii) CDI. In view of this review, the first two can and should be merged, as one is the subset of the other.

42. RFF: The RFF proved to be effective in stimulating increased rural financial outreach. PCR and PEIA acknowledge that the effect from RFF's service would likely have been greater if the initial targeting had been more closely monitored convincing other financiers to invest in RFF, and the RFF was more proactive in developing new financial products. The PCR concludes that the approach has potential for scaling-up if these improvements are implemented. This evaluation concurs with that view. Providing large loans to enterprises driving value chains was effective in developing demand for increased raw material benefiting smallholders and emerging commercial farmers. PCR observes that, at the same time, the programme would have benefited from a more focused support to fewer value chains. Upgrading deficient areas of the value chain would also have created a bigger impact particular

in respect of compliance with international standards, but also in providing investment models for emerging commercial farmers. The approach has potential for scaling-up if provided with support in management/administration and linkage to financial services.

43. CDI: This component was based on the principle of awarding competitive grants for investments in public infrastructure that improves the overall environment of doing business within a rural locality. The immediate effect from investment in irrigation would have been much greater if linked more closely with farmers' own investment in on-farm irrigation equipment and technical advisory service related to choice of crops to be grown. If the above recommendation is followed the approach has great potential to be replicated and scaled-up.

C.7 Gender equality and women's empowerment

44. The project does not have explicit gender criterion built-in at the AR or PCR stages, but the PCR consistently notes share of women in such aspects as loans provided and jobs created. For example, it notes that out of 322 investments refinanced through program loans 27 were for women, which is only 8 per cent of the total in terms of number (there is no information regarding the volume of lending). Out of the 2,090 jobs created through the program 775 were occupied by women (37 per cent of the total).

45. PCR states that interviews and surveys during RAEDP design showed that women were strongly represented in the kinds of activities to be supported under the programme: they either held control or were majority employees in the rural trading and agro-processing sub-sectors and were likely candidates for RFF re-financing. This however is not supported by the above data, which shows rather modest share of women receiving loans, and most of the jobs created were for men. At the same time, given the family management system that prevail in Armenian agriculture, it is possible to assume that women would have benefited from investments leading to increased production, productivity and incomes even in on-farm primary production,

46. PCR also informs that out of 322 clients that received business development services (BDS) 27 were women. This information however seems to simply copy the number of investments refinanced, based on the assumption that all investments were complemented by BDS, which does not seem to be the case, according to the same PCR.

C.8 Performance of Partners

47. IFAD performance is to be commended for initiating and successfully implementing an innovative and complex program ahead of schedule. According to the initial programme review all fiduciary aspects had been in order and IFAD staff responded to emerging issues in a timely and responsive manner. IFAD maintained high level of partnership with the clients and had achieved an important result – which is somewhat underrepresented in the PCR and other programme documents - being instrumental in securing significant additional funding from OFID, and leveraging extra resources commitment from the GoA (US$10 million each), not anticipated at the AR stage. The program appears to be generally sustainable and with high potential for scaling up and replication in Armenia and elsewhere. IFAD worked closely with UNOPS at supervision and later (since 2009) took over the supervision function.

48. Government: (i) Ministries of Agriculture and Finance performed their statutory requirements as foreseen in the LA and provided the expected implementation support to RFF and other programme structures. Ministry of Finance was an important party to the programme through the oversight of RFF. The GoA significantly increased its contribution to RFF (by US$ 10 million), thus demonstrating clear ownership and strong commitment to the programme.

49. Implementing institutions: (i) *Programme Analysis and Administration Unit* (PAAU) implemented all the major statuary aspects. PCR notes that the M&E activities under the PAAU suffered from insufficient management support, resulting in at times late submission of reports and insufficient collection of data and related analysis; (ii) *Programme Coordination Committee* (PCC)

was chaired by the Minister of Agriculture and was responsible for overseeing the programme activities including policy direction and overall oversight of the RFF operations; (iii) *Rural Finance Facility* (RFF) executed its responsibility according to its governing GoA Decree and in accordance with the Subsidiary Loan Agreement (SLA) with MoF; PCR notes that RFF's initially insufficient refinancing targeting later improved (after hiring a monitoring specialist) - however there were signs during PCR that monitoring had declined; (iv) *Participating Financial Institutions* (PFI) included nine commercial banks (CBs) selected through a competitive process, all the CBs extended their financial services to the programme client group according to the respective SLA; (v) *Rural Business Intermediation Services* (RBIS) organized the initial training of 16 RBIS providers, but the outcome of the programme could have been more solid for small borrowers had the programme been more proactive in that area.

50. Cooperating Institution (UNOPS): UNOPS provided programme supervision and implementation support during the implementation of the programme. The supervision included analysis of physical targets, impact and sustainability of implemented activities. Aspects of client orientation, satisfaction of clients and quality of services were also dealt. The supervision missions also provide the PAAU with useful recommendations in relation to M&E, international standards, training of PFIs, simplification of bidding procedures, tightening the targeting of RFF's refinancing activities. Supervision arrangement was changed from UNOPS to direct supervision by IFAD in early 2009.

C.9 Overall Assessment of Project Achievements

51. Overall, the RAEDP had been a highly effective programme, recording a number of important results that appear to be largely sustainable and beneficial for the rural poor. Despite some design issues (M&E problems, insufficient targeting of smaller enterprises, not enough technical assistance outreach to the small holders, not embedding a hedging mechanism for foreign exchange risks for borrowers), the program had several solid achievements that are tangible and had a positive impact for rural development in poor marzes of the country: jobs created; improved incomes and livelihoods in targeted communities; rural enterprises standing on their feet and expanding production; increase in productivity in some target areas (milk production, horticulture); and improved financial outreach in rural areas.

52. The wider rural economic effect from investments supported through RFF comprised US$39.7 million in direct revenue, US$23.0 million indirect and US$12.0 million in induced revenue which translates into a multiplier of 1.88. According to the PEIA, gross agriculture output grew much faster (by 24 per cent between 2005 and 2008) than the employment, which could be an indication of real job growth rather than absorption of excess labour. The 50 refinanced loans for enterprises engaged in food processing accounted for US$19 million or 19 per cent of the total gross food processing industry output increase between 2005 and 2008. Four enterprises supported by RAEDP obtained HACCP certification.

53. Infrastructure investments in irrigation also have a potentially strong impact in raising income levels in the programme area through cultivation of high value crops and job creation. The new IFAD-financed Rural Assets Creation Programme (RACP) in Armenia was specifically designed to support the development of clusters of export quality stone fruit orchards including in areas where irrigation was made available by RAEDP. This also shows strong continuity of IFAD operations in the country and in additional testament to overall sustainability.

54. The projected overall returns on CDI investments indicate an efficient use of the IFAD loan capital, as the aggregate FIRR using loan conditions applied by commercial banks, compares well with the opportunity cost of money.

D. Assessment of the PCR Quality

(a) Scope

55. This is a very useful and informative PCR and some parts of it can be considered exemplary and best practice in terms of very rich factual and analytic content. The PCR had been supplemented by a draft programme economic impact assessment (PEIA), which spends considerable time on analysing the financial and economic impact of the programme. The title of the latter document could be somewhat misleading, as it is not an "impact evaluation" (using control groups, counterfactual, etc.), but rather a very in-depth and thorough assessment of results achieved on the ground by calculating the economic and financial rates of return (EIRR and FIRR). Both documents cover a lot of ground, providing complementary information on many fronts, although there is considerable overlap as well. Some of the important lessons are spread throughout the report and could have been emphasized in a more centralized manner.

(b) Quality (methods, data, participatory process)

56. The overall high quality of the PCR notwithstanding, there are some issues related to methods used and attribution lines drawn that deserve further attention. The PCR several times makes the connection between programme impact and general poverty reduction at the national level. While not implausible (a successful project like RAEDP most likely contributed to poverty reduction, albeit on a much smaller scale), this should not have been emphasized by the PCR through bringing up national level statistics on economic growth and poverty reduction, as it is quite misleading that way. Both growth and poverty reduction in Armenia at that time were largely driven by quite different determinants (remittances and construction boom) – both vulnerable to external shocks. After the onset of the global economic and financial crisis, this contributed to sharp decline in GDP (negative growth) and increase in poverty levels. Incidentally, the PCR does not quote any statistics on poverty from post-2008 period despite project being still active at that time. In addition, the analysis of economic and financial rates of return, which is largely covered in PEIA but also takes up visible space in PCR, deserves a closer look (to be done at the PPA stage), as it appears to be based on overly simple and optimistic assumptions that may not reflect all the risks factors involved.

(c) Lessons

57. PCR and PEIA compile a useful list of lessons learned that carry considerable potential in terms of learning, scaling up and replication. This review concurs with most of them (described below).

(d) Candour

58. Despite some methodological issues described above, the PCR is generally candid in describing issues that emerged throughout implementation and the PCR stage. It provides detailed description of challenges and attempts candid analysis of their cause and effects (e.g. exchange rate fluctuation and its impact on the borrowers from RFF).

E. Final Remarks

E. 1 Lessons Learned

59. The PCR includes a detailed lessons learned section that contains a number of important forward-looking lessons/recommendations, with which this review generally concurs. In addition, the PCR has other lessons/recommendations dispersed through the report itself, which deserve attention as well. Some of them are emphasized below:

60. Several adjustments to the rural finance component (RFF) of the program would have improved the results in this area: (i) all loans were issued in US$, without embedding a hedging mechanism, thus exposing local producers to foreign exchange risks; enabling borrowing in local currency would have added flexibility to the program and reduced risks for the clients; (ii) the reported interest rate was still

somewhat high – the PCR suggests that potential PFIs should have been invited to bid on the spread and the average should have been the maximum any PFI can charge clients, in order to transfer some of the low cost of RFF refinancing to the client group in the form of lower interest rate; and (iii) refinance targeting should have been more focused in terms of concrete pro-poor impact like job creation.

61. PCR makes an important suggestion (which is mentioned midway in the report and not in the forward-looking lessons section) that the future focus of RFF should be to assist the financial sector develop new financial products like leasing and insurance products. This is an interesting proposal that deserves a closer look in the next IFAD program in Armenia

62. Access to finance for rural entrepreneurs (as well as SMEs in general) had been a challenging issue, as commercial lending was traditionally heavily collateralized. If the programme was able to break that practice, as it claims, then it would be an important lesson to be derived from this experience and replicated further, including non-agriculture sectors.

63. Rural communities would have benefited from improving irrigation systems through CDI component much more in a more rapid fashion, if it were packaged together with technical assistance/ advisory services on alternative crops and new technologies.

64. The difficulty of accessing the Russian market (following the 2008 conflict with Georgia and blocked transport routes) for Armenian producers proved the importance of reducing trade barriers to other countries, particularly the EU. In this respect, one of the priorities would be facilitating compliance of local exporters of agricultural produce and processed food with international food standards.[6]

65. New IFAD investments in Armenia should further support the value chain approach that proved to stimulate diversification, investment, availability of inputs and raw materials. This should involve assistance in developing contractual modalities, training and tripartite financing arrangements. IFAD should also consider co-financing the cost of embedding value chain supply chain managers with the processors to engage in provision of technical advice and staggering of production and delivery of produce.

E.2 Issues for IOE follow-up (if any)

66. To complement this PCRV, IOE is planning to prepare an in-depth project performance assessment (PPA) for RAEDP, including a short field visit. The PPA will attempt to further refine lessons learned and take a closer look at methodologies applied and sources of information used at the completion stage. The PPA will also provide ratings that are not included in the review.

F. List of Sources Used for PCR Validation

IFAD. *Appraisal Report on the Rural Areas Economic Development Programme in the Republic of Armenia*. 2004.

IFAD. *Evaluation Manual – Methodology and Processes.* 2009.

IFAD. *Guidelines for Project Completion Report Validation and Project Performance Assessment.* January 2011.

IFAD. *Loans and Grants System.* 2011.

IFAD. *Project and Portfolio Management System.* 2011.

IFAD. *Project Loan Agreement*. 2005.

IFAD. *Project Loan Amendment*. 2008.

[6] Including GAP (Good Agricultural Practices) and ISO HACCP (International Organization for Standardization Hazard Analysis and Critical Control Point) certification).

IFAD. *Project Loan Amendment*. 2009.

IFAD. *Report and Recommendation of the President to The Executive Board on a Proposed Loan to the Republic of Armenia for the Rural Areas Economic Development Programme. Rome,* December 1-2, 2004.

IFAD. *Republic of Armenia Country Strategic Opportunities Paper.* Rome, 17-18 December 2003.

IFAD. *Republic of Armenia Rural Areas Economic Development Programme (IFAD Loan 653-AM) Completion Report,* October 2010.

IFAD. *Republic of Armenia Rural Areas Economic Development Programme Implementation Support Mission to RFF*. April-May 2009.

UNOPS. *Supervision Report on Armenia Rural Areas Economic Development Programme (IFAD Loan 653-AM).* February 2006.

UNOPS. *Supervision Report on Armenia Rural Areas Economic Development Programme (IFAD Loan 653-AM).* March 2007.

UNOPS. *Supervision Report on Armenia Rural Areas Economic Development Programme (IFAD Loan 653-AM).* May 2008.

UNOPS. *Supervision Report on Armenia Rural Areas Economic Development Programme (IFAD Loan 653-AM).* December 2008.

Annex 1

RAEDP Results Chain

Goal	***Results***
Incomes of poor rural people living in disadvantaged *marzes* in the mountain areas sustainably increased.	▪ The programme contributed to reducing the poverty from 34.6 per cent at AR (2004) to 23.5 per cent. (2008) at PCR. The extreme poverty dropped from 6.4 per cent to 3.1 per cent over the same period (source: ANSS, Social Snapshot and Poverty In Armenia, 2009).
Objectives	
Sustained growth of rural enterprise activity stimulated in the defined programme area.	▪ 124 of enterprises operating after three years. ▪ Revenue growth of enterprises. ▪ 2 090 jobs generated of which 775 were occupied by women. ▪ 322 applications were accepted by PFIs of which 27 were for women. ▪ 16 RBIS trained.
Outputs	
Medium and long term financing made available to rural commercial entities in a competitive financing environment.	▪ At AR a total of US$37million (PFIs own funds US$22 million) was credited and at PCR it had increase to US$122 (PFIs own funds US$82 million). ▪ The rural branch network of CBs increased from 49 to 74 branches. ▪ Reduction in lending interest rate from 18 per cent to 12 per cent if denominated in US$ and therefore associated with currency risk. ▪ Collateral requirements liberalized. ▪ A total of 322 investment loans value at US$13.413 million. ▪ Repayment per cent - 96 per cent. ▪ 306 enterprises established, created 2090 jobs of which 775 for women. ▪ RFF did refinance 8 leasing contracts with MCA funds (4) and WB funds (2).
Effective access to required business intermediation services provided to small and medium enterprises.	▪ 322 business plans accepted by banks for financing. ▪ 322 clients received BDS of which 27 were women and 198 received ongoing advisory service of which 27 were women. ▪ Contract arrangement between 40 enterprises and 655 farmers organised by the enterprises. ▪ 40 enterprises organised ongoing advisory service to around 650 farmers/supplier, using among others the 16 RBIS trained under the programme.
Commercially Derived Infrastructure established in programme area.	▪ 13 of the infrastructure investments arising from VICSA ▪ Around 780 Farms/Businesses received RIBS ▪ 52 village infrastructure operational at completion
Programme effectively managed.	▪ Disbursement percentage 100 per cent. ▪ MIS set up and used for decision-making by RFF. ▪ Interest income from RFF was sufficient to cover operational cos.t

Activities by components

REF	RBIS	CDI	PAAU
1.1. Nine Commercial Banks were selected to participate in the programme. 1.2. Total disbursement under RFF was US$13.413 million used to refinance 322 loans of which 27 (8 per cent) was for women. Of these 306 were performing loans valued at US$12.233 million plus an equity contribution of US$7.413 million or 38 per cent of total investment. The 306 loan financed 360 types of investments. 1.3. The 360 investments generated 2090 jobs of which 775 were occupied by women. 1.4. 31 farmers increased their orchard yields by around 50 per cent for 219 ha. 1.5. Incremental markets were created for 650 farmers. 1.3. Average milk yield increased from 2307 lt to 4112 lt/cow/year or by 59 per cent.	2.1. ASME assisted the programme train 16 RBIS provider. 2.2. PFIs provided business development assistance to 233 clients. 2.2. The 16 RBIS provided pre investment assistance to around 89 enterprises. 2.3. Forty of the processors in receipt of refinanced investment loans provided/organised regular advisory service to around 650 farmers/suppliers. 2.4. Due to the increased demand for raw material 40 of the processors established contract arrangements with around 650 farmers/supplier. 2.4. A total of 24 processors received assistance from CARD in HACCP, product development and marketing.	3.1. 34 financed infrastructure projects amounting to US$10.2 million. 3.2. 14 communities benefit from financed irrigation systems. A total of 2 625 ha of land rehabilitated benefiting 14 600 farmers 3.3. 7 communities benefit from financed road rehabilitation with a total length of 17.7 km benefiting 24 721 persons 3.4. Construction of drinking water systems serving 13 communities benefiting 9 567 persons. 3.5. Construction of 18 village natural gas supply systems benefiting 21 420 persons. 3.6 Number of persons benefiting from infrastructure 70 308.	4.1. On site meetings in 25 communities recipient of infrastructure investments. 4.2. Monitoring and evaluation.

Source: PCR.