

## Project Completion Report Validation

### Rural Asset Creation Programme

### Republic of Armenia

Date of validation by IOE: December 2018

## I. Basic project data

			Approval (US\$ m)		Actual (US\$ m)	
Region	Near East, North Africa and Europe Division	Total project costs	52,345		41,628*	
Country	Republic of Armenia	IFAD loan and percentage of total	13,488	25.8%	9,489*	22.8%
Loan number	IFAD 817-AM IFAD GRANT 1219-AM	IFAD Grant	499	1%	288*	0.7%
Type of project (subsector)	Rural Development	OFID	20,007	38.2%	18,878	45.3%
Financing type	IFAD Loan and Grant	Government of Armenia	11,023	21.1%	9,919	23.8%
Lending terms	Hardened Terms (20 years)	Beneficiaries	3,059	5.8%	3,054	7.3%
Date of approval	16 September 2010	USAID	2,001	3.8%	-	-
Date of loan signature	30 November 2010	Others (TBD)	2,267	4.3%	-	-
Date of effectiveness	May 2011					
Loan amendments	1 <sup>st</sup> : 8 Nov 2013 2 <sup>nd</sup> : 12 Aug 2015	Number of beneficiaries	At Appraisal: 62,600 indirect HH 450 direct HH Change At MTR: 36,500 indirect HH only		Actual beneficiaries 4,913 Indirect HH 122 Direct HH	
Loan closure extensions	None	Project completion date	30 June 2016		30 June 2016	
Country programme managers	Henning Pedersen Mounif Nourallah Mikael Kauttu Patrick Herlant Naoufel Telahique	Loan closing date	31 December 2016		31 December 2016	
		Mid-term review			November-December 2014	
Project completion report reviewer	Valentina Di Marco	IFAD loan disbursement at project completion (%)			PCR: loan 70.3%, grant 57% (IFAD system: loan 90.5%, grant 97.6%**	
Project completion report quality control panel	Chitra Deshpande Ernst Schaltegger Fumiko Nakai	Date of the project completion report			30 January 2017	

Source: Project Completion Report (PCR), January 2017.

\*The disbursed amount reported in the IFAD system is quite different from the ones indicated in the PCR. ORMS reports: IFAD loan US\$12.209 million and IFAD grant US\$0.488 million.

\*\* The data based on the Operational Results Management System (ORMS) based on US\$ figures. In the denominated currency of the IFAD financing, the disbursement rate was recorded as 94.5 % for the loan and 96.9% for the grant. This difference is likely to be due to the exchange rates between US\$ and SDR.

## II. Project outline

1. **Introduction.** The Rural Asset Creation Programme (RACP) aimed to reduce poverty in Armenia by establishing an economically viable fruits and nuts sector with backward linkages to poor rural smallholders. The project recognized that further reductions in rural poverty and regional socio-economic disparities in Armenia needed to be set in a context of predominantly smallholder production and address the constraints of highly limited and low-paid rural employment opportunities. Central to addressing these issues successfully was the creation of linkages for rural producers, processor and traders to existing and emerging high-value markets, both domestic and for export.
2. RACP was approved by the Executive Board on 16 September 2010 and became effective on 2 May 2011. The programme duration was 5 years, completing as planned on 30 June 2016 and closing on 31 December 2016. At design, RACP was expected to be financed by IFAD, the OPEC Fund for International Development (OFID), the Government of Denmark, the Government of Armenia, co-financiers (USAID and others to be determined at appraisal) and beneficiaries. A mid-term review (MTR) was completed in 2014 with two missions (2-6 November and 28 November-9 December). The loan agreement was revised twice.<sup>1</sup> The first amendment (2013) aimed to rename Component 2 (from Rural Transportation Infrastructure to Value Chain Infrastructure), while the second amendment (2015) reallocated IFAD funds among the components. The financing from USAID and the institutions to be determined never came through.
3. **Project area.** At design, the programme intended to cover all of Armenia's rural high-altitude areas with the exception of the Ararat marz (region), as permitted by agro-ecological suitability. The programme focused on the poor marzes of Tavush, Vayots Dzor and Talin District of Aragatsotn to take advantage of investments by earlier IFAD-finance projects. These poor regions were selected for establishing orchards, since they were located along border areas and had a low share of irrigated land. The seven mountainous marzes of Shirak, Lori, Tavush, Gegharqunik, Vayots Dzor, Sjunik and Aragatsotn were selected as well, because of the viability of activities included in the Programme under the OFID financing.
4. **Project goal, objectives and components.** The goal of RACP was to reduce rural poverty in Armenia. Its objectives at appraisal were to: (i) establish an economically viable fruits and nuts sector with backwards linkages to poor rural smallholders; (ii) establish an entity (to be fully privatized) for delivery of services to the fruits and nuts sector; and (iii) remove infrastructure bottlenecks that inhibit increasing participation of the economically active rural poor in enhanced commercialization of the rural economy. After the MTR in 2014, the programme objectives have been modified as follows: (i) increased incomes and assets generated by small-scale producers, and small and medium sized agricultural product processors providing impact on poverty groups; (ii) improved quality of life of target population; and (iii) Fruit Armenia on track to become operationally sustainable by 2016.
5. RACP focused on expanding smallholders' orchards combined with the introduction of high yielding new varieties, more efficient irrigation systems and technical advice. In addition, RACP intended (with IFAD financing) to invest in rural roads to enable better access to orchards and markets, but also in gas and community water supply (CWS) for improved livelihood through OFID financing.
6. The RACP comprised three components: (i) Support to Fruits and Nuts sector; (ii) Rural infrastructure; and (iii) Programme Organization and Management.

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<sup>1</sup> First amendment on 8 November 2013; Second amendment on 12 August 2015.

7. **Component 1 (Support to Fruits and Nuts Sector)** sought to: (i) increase poor smallholder assets and income in the Programme area by linking them to the Armenian Fruits and Nuts value chains by establishing a Joint Stock Company (Fruit Armenia, FA) as a vehicle for sector development; and (ii) improve the access of Armenia's horticultural produce to international markets through support to agro-related laboratories, export promotions, and training of poor smallholders not contracted by FA as well as private sector nurseries.
8. **Sub-component 1.1 (Establishment of Fruit Armenia).** Fruit Armenia was conceived as the primary vehicle to implement a vertically-integrated enterprise-led approach to achieving profitable and hence sustainable modernisation of the Armenia fruits and nuts production that would benefit smallholder farmers. FA was to assist in establishing modern orchards under contract farming arrangements with smallholders, and processing and marketing their produce. Modern technologies were to be applied to improve production and productivity, to create access to domestic and international markets through the introduction of international standards.
9. **Sub-component 1.2 (Promotion of Standards and Exports).** This sub-component was to include the following activities: (i) support to agro-related laboratories; (ii) export promotion through the Union of Exporters in Armenia; and (iii) promotion of smallholders and nurseries operating outside FA contracts. This sub-component was cancelled with the MTR in 2014 and its funds diverted to Component 2.
10. **Component 2 (Rural Infrastructure)** addressed the need for continued public investments in rural infrastructure in order to: (i) improve livelihoods and economic growth in disadvantaged communities; and (ii) support the achievement of the full economic potential of the beneficiary clusters identified and supported under Component 1. It consisted of two sub-components, geared to finance social and economic infrastructure respectively. Complementary activities including trainings and demonstrations, consistent with an expanded scope for IFAD financed CWS investments were described in the Amendment of the Financing agreement dated 12 August 2015.
11. **Sub-Component 2.1 (Public Utilities Investments - PUI).** This sub-component was to support the construction or rehabilitation of village based public infrastructure facilities that were critical for the well-being of rural communities, e.g. community water supply, gas, drainage structures etc. Investments were intended to be directed to the poorest areas of the seven programme marzes. The reviewed approach applied to PUI investments financed with proceeds of the IFAD loan entailed a specific focus on investments in CWS infrastructure with an emphasis on its multiple uses, i.e. both as source of water for the population, for the livestock, for local small ventures and for irrigating backyards which was a source of food production in rural Armenia.
12. **Sub-Component 2.2 Rural Transportation Investments (and later Value Chain Infrastructure).** The subcomponent was directed to investments in rural roads to support FA orchards. At a later stage, the sub-component was renamed Value Chain Infrastructure (VCI) to also include irrigation schemes in the IFAD financing. While extending the eligibility of VCI investments to the seven marzes constituting the broader target areas under Component 2 (i.e. not focusing exclusively on FA clusters), priority was given to investments in areas with good potential for orchards development.
13. **Target group.** The programme was to be focused on economically active rural poor in enhanced commercialization of the rural economy. RACP's primary target groups at design were "poor smallholders (women and men) engaged in horticulture and key stakeholders in the fruit and nut value chains" (nursery owners, processors, traders and exporters) under Component 1, and "the general

population of communities located in disadvantaged mountain areas, whose livelihood opportunities would be enhanced through RACP support to water development, gasification and road rehabilitation and construction" under Component 2.

14. The programme further specified that at least a third of contracted farm households were to be female-headed and that at least 40 per cent of seasonal and permanent jobs generated by programme support activities were to be filled by women (primary production, harvesting, nurseries, processing).
15. **Financing.** At design, the project cost was estimated at about US\$52 million to be financed by IFAD, OFID, the Government of Armenia, USAID, other co-financiers to be determined and RACP beneficiaries (US\$3 million). The expected contribution by USAID for rural infrastructure and unspecified co-financiers did not materialize. The Project Completion Report (PCR) reports the actual project cost as US\$41.6 million but the figures for the IFAD funds are notably below those recorded in the IFAD database (with the difference of about US\$2.9 million). This may be because, even though the PCR is dated January 2017 (after the financing closing), the mission was undertaken in June 2016 and the financial figures were not updated.

Table 1  
**Project costs by financier**

<i>Financier</i>	<i>Appraisal (in 000' US\$)</i>	<i>% of total – appraisal</i>	<i>Actual (PCR) (in 000' US\$)</i>	<i>% of total actual costs</i>	<i>Actual - % of appraisal (PCR)</i>	<i>IFAD funds disbursement (% appraisal) IFAD ORMS<sup>2</sup></i>
IFAD loan	13,489	25.8%	9,488	22.8%	70.3%	90.5%
IFAD grant	0.499	1%	0.288	0.7%	57.7%	97.6%
Government of Armenia	11,022	21.1%	9,920	23.8%	90%	
OFID (loan)	20,007	38.2%	18,878	45.3%	94.3%	
Beneficiaries	3,058	5.8%	3,054	7.3%	92.6%	
USAID	2,009	3.8%	-	-		
TBD	2,270	4.3%	-	-		
<b>Total</b>	<b>52,346</b>		<b>41,628</b>		<b>79.5%</b>	
<b>Total (without USAID and TBD)</b>	<b>48,075</b>		<b>41,628</b>		<b>86.6%</b>	

Source: RACP PCR, IFAD database.

Table 2  
**Component costs**

	<i>Appraisal (in 000' US\$)</i>	<i>% of total (appraisal)</i>	<i>Actual (in 000' US\$)</i>	<i>% of actual costs</i>	<i>Disbursement (% appraisal)</i>
Support to Fruits and Nuts Sector	13,499	25.8%	2,782	6.7%	21.5%
Rural infrastructure	35,889	68.6%	35,898	86.2%	114.0%
Programme Organization and Management	2,956	5.6%	2,947	7.1%	94.5%
<b>Total</b>	<b>52,346</b>		<b>41,628</b>		<b>79.5%</b>

Source: RACP PCR.

<sup>2</sup> The disbursed amount reported in IFAD system is different from the one indicated in the PCR. ORMS reports: IFAD loan US\$12.209 million and IFAD grant US\$0.488 million.

16. In addition, a Danish grant in the amount of DKK 23.5 million (US\$3.16 million) was planned to finance RACP Sub-component 1.2. The agreement between the Danish International Development Assistance and IFAD entered into force on 11 April 2014. However, since the grant was directed to non-contracted farmers benefitting indirectly from FA's success, it was cancelled after MTR 2014, as was the Sub-component 1.2. In late 2015, the Danish grant was linked to another IFAD project called Infrastructure and Rural Finance Support Programme (IRFSP), approved in 2014).
17. **Project implementation.** The Lead Programme Agency for RACP was the Office of the Prime Minister and the Programme Steering Committee had the overall responsibility for the implementation of the programme. The management structure of the Programme consisted of the Programme Implementation Unit (PIU, former PAAU, Programme Analysis and Administration Unit) embedded in the Prime Minister's Office that comprised the independent Rural Finance Facility, and FA.
18. The main tasks of the PIU (in common with other IFAD financed programmes, specifically RAEDP and FMAP) comprised management and coordination of the Programme, including responsibility for programme planning, budgeting, financial management, monitoring, impact assessment, and administrative reporting. RACP's PIU had already been responsible for other previous IFAD-financed projects and programmes in Armenia (RAEDP and FMAP). Its Construction Supervision Department had a solid staff and retained a key role in contract management and quality control.
19. The establishment of FA as a Joint Stock Company for programme implementation was based on a Framework Agreement indicating the main principles for the relations between PIU and FA, e.g. management of the fund's flows, procurement and reporting. The PIU in charge of the Programme was not entitled to overlook the almost independent management of FA and to interfere in their activities.
20. **Changes during implementation.** Changes made during the programme implementation concerned all four sub-components:
  - a) **Changes in sub-component 1.1:** The initial target at appraisal was to establish 700 ha of orchards. It was then reduced to 308 ha right after the Supervision mission in 2011 and, at the MTR in 2014, it was agreed that FA's target was to set up only 80 ha of modern orchards. The remaining scope of Component 1 was to consolidate the ongoing activities and the elaboration of an exit strategy for FA.
  - b) **Changes in Component 1.2:** The activities included in this sub-component (support to agro-related laboratories, export promotion through the Union of Exporters in Armenia and promotion of smallholders and nurseries operating outside the FA contracts) were never implemented and the sub-component was canceled at MTR.
  - c) **Changes in sub-component 2.1:** This component (PUI) was modified after the MTR when investments in Community Water Supply and Gas Supply benefitted from unspent funds from Component 1.2. (loan agreement modified in 2015 and reallocation of funds).
  - d) **Changes in sub-component 2.2:** This sub-component was modified twice. In 2013 it was renamed from Rural Transport Infrastructure to VCI, with the aim to direct investments in rural roads and ancillary structures, as well as irrigation water supply systems that supposed to complement and strengthen the programme support to the fruits and nuts value chains associated with RACP. The second change occurred after the MTR, when funds were reallocated across categories of the IFAD loan and the PIU developed a pipeline of sub-projects for the full utilization of the IFAD loan funds allocated under the VCI sub-component.

21. **Delivery of outputs.** In consideration of the changes in the programme components, the outputs will be assessed based on the MTR targets. Under **Component 1**, the only key output delivered was the establishment of a total of 85 ha of walnut, peach and cherries' orchards and farming contracts with 122 smallholders.<sup>3</sup> This represented 12 per cent of the appraisal target (700ha) and 106 per cent of the MTR target (80 ha). None of the other Component 1 outputs revised at MTR and related to the exit strategy for FA were achieved at project completion.
22. With regard to **sub-component 2.1 (PUI)**, the PCR indicated a 50 per cent achievement of the MTR target when referring to households with potential access to improved infrastructure, due to improved irrigation, drinking water or gas networks. According to the PCR, the achievement level of major outputs against the MTR targets for **Sub-component 2.2 (VCI)** were: (i) 74 per cent for improved CWS systems; (ii) 54 per cent for gas network; (iii) an overall 128 per cent for irrigation schemes. More details in Annex IV of the PCRV.
23. **Sub-component 1.2** was cancelled after the MTR in 2014. It was agreed that the PIU would develop a new proposal for the future export promotion operations. This never took place and, as a consequence, the co-financing from the Danish International Development Assistance for RACP fell through, since it was strictly linked to the success of this sub-component.
24. **Intervention logic.** The project's rationale at design was based on the recognition that rural poverty and regional socio-economic disparity reduction in Armenia must be set, for the foreseeable future, in the context of predominantly smallholder production and, secondly, must address the constraints of highly limited and low-paid rural employment opportunities outside own-farm self-employment and the very low development and diversification of the non-farm rural economy.
25. The programme intended to address these issues by linking rural producers, processors and traders to existing and emerging high-value export and domestic markets and by achieving production and productivity gains in agricultural products manifested in terms of quality, quantity, consistency and market competitiveness, as a result of modern technology, along key agricultural value chains where Armenia had an actual or potential comparative and competitive advantage. In particular, RACP's Component 1 logic was based on the underlying assumption that the domestic demand for many traditional high value crops was beginning to level off, thus smallholder producers had to be prepared for high value export and domestic markets demanding consistent quantities and quality produced according to international standards.

### III. Review of findings

#### A. Core criteria

##### Relevance

26. **Relevance of objectives.** RACP' objectives were fully aligned with Armenia's Sustainable Development Programme (SDP-PRSP2), which had the goal of ensuring sustainable and rapid economic growth, implementing the targeted social and income policies aimed at the active and vulnerable (including the poor) social groups and modernizing the country's administration system. The programme was also in line with IFAD Strategic Framework 2007-2010 and IFAD Armenia COSOP 2003, as well as with Armenia's 2006 Agricultural Sustainable Development Strategy,<sup>4</sup> whose overall objective was to promote sustainable agricultural

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<sup>3</sup> Source: PCR – Physical targets and output delivery. According to FA official reporting, the number of households is 131, but some of the contracts are considered improper by the PCR mission.

<sup>4</sup> <http://www.gov.am/files/library/22.pdf>

development, increase food security level and income of rural population through creation of favourable environment for the entities operating in agricultural sector.

27. Component 2 on Rural Infrastructure Investments was strongly linked to the objectives of the Government of Armenia's poverty reduction policy papers, which confirmed the continued relevance of improving the service levels of public utilities such as drinking water and gas supply and of improving access to irrigation as key conditions for the development of Armenia's rural areas.
28. **Relevance of design.** FA was to be established in 2012 as a state-owned company with the intention of being privatised in the following three to four years. The principle idea of FA was to enable the farmers through contract farming to be further involved in horticulture thus generating profits.
29. The design of FA, to be eventually transformed into a commercial company (sub-component 1.1) to address the need for a strong, vertically integrated and enterprise-led approach to achieving a profitable and hence sustainable modernisation of the Armenian fruit production that would specifically benefit poor smallholder producers, was appropriate. Sub-component 1.2, aiming to improve the overall reputation and visibility of Armenia's horticultural produce on the international markets (through exporting activities, training and establishment of technical laboratories), was relevant and linked to the success to sub-component 1.1.
30. The chosen approach for implementing the comprehensive activities of the Programme through a newly set up company was considered the main challenge for RACP. Since the setup of FA was the starting point of all activities under Component 1, all further activities depended on the capacity of its strategic and operational management.<sup>5</sup> The component's design lacked an appropriate context analysis addressing the immature private investments market in Armenia and overestimated the actual interest of rural households in investing in new technologies. For many landowners, agriculture was not the primary income source anymore and the envisaged clustering at design of land plots under the regime of farmers became impossible.
31. The design for Component 2 was adequate when addressing the need of continued public investments in Rural Infrastructure in order to: (i) improve livelihoods and economic growth in disadvantaged rural communities; and (ii) support the achievement of the full economic potential of the beneficiary clusters identified and supported under Component 1, Support to the Fruits and Nuts Sector. However, after the MTR in 2014, the relevance of Component 2 was substantially reduced, since it lost its linkage with the underperforming Component 1, as envisaged at design.
32. **Relevance of project targeting.** Targeting analysis under Component 1 was not sufficiently done and assumed that smallholders were willing to provide their land for governmental orchards. The programme requested to have plots between around 1 ha and 2 ha and small-scale producers had to give most of their land to the programme (a poor family would then keep some land back for gardening and fodder production). Ideally, groups of adjacent landowners were going to be set up to generate a more systemic process in the orchards' modernization.
33. No direct targeting to women was included in the design. Women in Armenia play a very significant role in the rural economy, providing 40 per cent of the workforce and heading a third of rural households. However, it was not clear at appraisal

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<sup>5</sup> Annex A from QA from 16 June 2010 (CPM: Henning Pedersen) had already pointed out the highly risky approach of Fruits Armenia. The idea of setting up a public owned company with the assumption of attracting private resources once breakeven point is reached was extremely challenging. Privatization of public companies not necessarily ensures their competitiveness in the market.

whether the programme was targeting women as the sole owners of the plot of land or simply co-owners with their husbands.

34. **In summary**, despite being in line with the Government and IFAD strategies, RACP needed a more in-depth contextual and demand driven analysis, not sufficiently compensated by the changes in design at MTR. The lack of a clear risk mitigation strategy at design (especially for Component 1) was a key element for the project's low performance. Based on the above, this PCRV rates Relevance as moderately unsatisfactory (3), one rating lower than the Programme Management Department (PMD).

### **Effectiveness**

35. This section presents the effectiveness of the project in relation to the programme revised logical framework after the MTR, when the expected outcomes envisaged at design were modified and considered more appropriate with the programme's progress at that time.
36. **Component 1: Support to Fruits and Nuts Sector.** The original expected outcome for this component was to achieve at least a fivefold increase in the value of fruit/nut orchard land. After the MTR, the expected results were modified such as: (i) put at least 80 ha of land of smallholder farmers under fruits/nut production; (ii) prepare a business plan by 2016 detailing operations of FA until 2028; and (iii) consolidate FA by 2016.
37. It is notable that the choice of establishing FA (sub-component 1.1) to achieve Component 1 outcome was already widely discussed and considered risky during the Quality Assurance (QA) Meeting held in June 2010.<sup>6</sup> When reviewing project design, some urgent issues were raised, such as: (i) the need for a Performance Contract (then signed in May 2012) between the Government of Armenia and the Management of Fruit Armenia, defining the respective mutual obligations and the linkage of compensation of senior management of FA to results achieved; (ii) the necessity of subcontracting any service delivery to private sector providers through competitive bidding processes; (iii) the independence of FA management from the PIU defined by a Framework Contract (signed in May 2012); and (iv) the need for a Strategic Business Plan (eventually presented in 2012, but not continuously updated) to be prepared and discussed with government within two years of loan effectiveness. In addition, FA was supposed to reach full privatization at year 8 of the programme.
38. Despite the considerable efforts of FA's Managing Director, the delays in establishing the company and hiring qualified competent staff contributed to FA's failure. FA's management was not robust, as no other management level staff remained in FA. The FA Board met on a regular basis, but it was not able to redirect the company and to achieve a turnaround. Since the resignation of FA's Managing Director in 2014, the Nursery Manager stepped in and remained responsible for the overall tasks of FA, as well as for nursery and orchard management.
39. The only quantifiable results at project completion with regard to sub-component 1.1 were: (i) the establishment of a total 85 ha of walnut, peach and cherries' orchards, representing 28 per cent of the MTR target (300 ha) and 106 per cent of the MTR target (80 ha); and (ii) the establishment of contract farming arrangements. With regard to the latter, and according to FA data reported by the PCR, contracts were established with 131 households. However, the PCR mission could not verify this figure provided by the PIU and noticed some improper contract farming arrangements, which brings the number of contracted households to 122.

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<sup>6</sup> Minutes from QA Meeting from QASAR (Country Programme Manager: Henning Pedersen; QA Reviewer: Artraud Hartmann; Cleared by: Chitra Deshpande, Programme Officer of QA; Prepared by QA Reviewer: Artraud Hartmann).



40. The sub-component 1.2 (promoting standards and exports) was cancelled after the MTR and no outcomes were achieved. This sub-component was already questioned during the Supervision Mission in 2011. The AWPB of the RACP for 2012 already did not include any activities under this sub-component. In the view of the PIU/Government, the activities planned for standards and laboratories in horticultural sector did not respond anymore to the realities in Armenia and the implementation arrangement for export promotion was not regarded as an appropriate one. Due to failures in establishing new orchards as originally intended, the cooperation not only between FA and farmers (including non-contracted farmers by FA) but also between FA and service providers (including training) did not achieve the envisaged goals.
41. **Component 2: Rural Infrastructure.** The expected results at design for this component were: (i) a reduction of at least 50 per cent in wood used for heating and cooking in villages through increase in gasification; (ii) at least 10 per cent reduction in work days lost; and, after the MTR, (iii) effectiveness of productive infrastructure on 1,700 ha of farmland increased through improved irrigation efficiency.
42. The re-allocation of unspent Component 1 funding to Component 2 was the key recommendation of the MTR mission at the end of 2014. RACP's main revision included reallocation across categories of the IFAD loan and the identification by the PIU of a pipeline of sub-projects for the full utilization of the IFAD allocated loan funds.
43. According to the PCR, the sub-component PUI achieved: (i) 50 per cent of its MTR target with regard to the number of households with potential access to improved infrastructure; and (ii) 62 per cent of targeted rural town or villages with improved irrigation, drinking water or gas infrastructure. However, at project completion, these targets were an estimate of a "potential" outreach and no evidence of actual achievement was provided.
44. The VCI sub-component achieved the following MTR targets: (i) 54 per cent of targeted rural town connected to the gas distribution network, but with only 5 per cent of households actually connected to the network at project completion; (ii) 74 per cent of targeted communities with an improved drinking water system (but no beneficiaries actually connected at completion); and (iii) 119 per cent of households (3,603 households) in the command area of rehabilitated irrigation schemes (only target actually achieved based on the number of communities with access to improved irrigation schemes).
45. Most of the component 2 activities were implemented during the last year of the programme and that explains the very little evidence of any outcomes or impact at project completion. Despite the efforts of absorbing the reallocation of funds from Component 1 to Component 2 after the MTR and accelerated implementation before project completion, the benefitting communities and household numbers of all works combined were below the potential and projected figures.
46. **Beneficiaries.** The total number of beneficiaries at appraisal was 63,050 households. It was significantly revised at MTR (36,500 households) and only regarding Component 2. At completion, the PCR indicated a lower number of beneficiaries (25,337 households), taking into account only the households that had the *potential* of being reached by drinking water systems and connection to gas infrastructure after the programme completion. The same PCR, however, indicated that the actual number of beneficiaries at completion was only 5,035 households. Below are details of RACP's outreach based on the PCR.

Table 3

**Expected and actual outreach**

	<i>Appraisal Targets</i>	<i>Revised MTR Targets</i>	<i>Actual outreach at completion (Source: PCR)</i>
<b>Component 1:</b>	450 Direct HH	No target	122 Direct HH
	1000 Indirect HH	None	None
<b>Component 2:</b>	61,600 Indirect HH	36,500 Indirect HH	4,913 Indirect HH
<b>Total Outreach:</b>	<b>63,050 HH</b>	<b>36,500 HH</b>	<b>5,035 HH</b>

Source: PCR - Appendix 4: Rural Assets Creation Programme logical framework.

47. Based on the underperformance of Component 1 (FA failure and cancellation of sub-component 1.2) and the expected results for Component 2, still not visible at project completion, the PCR rates Effectiveness unsatisfactory (2), one rating lower than PMD.

**Efficiency**

48. **Time Lapse.** The IFAD loan and grant for RCAP became effective eight months after EB approval slightly favourably compared to the regional average of 9.6 months.<sup>7</sup> The project was completed in June 2016, as originally foreseen without an extension.
49. The expected cost per beneficiary household at appraisal was US\$830.22<sup>8</sup> and implied the full implementation of FA. However, considering the cancellation of Component 1 and the design revision after MTR, the number of beneficiary households was radically reduced. The figures reported in the PCR brings a cost per beneficiary household of US\$8,268, based on an actual cost of US\$ 41,627.67 million and an actual outreach of 5,035 beneficiary households.<sup>9</sup>
50. **Economic Internal Rate of Return (EIRR).** In line with RACP design report, an economic and financial analysis<sup>10</sup> was conducted at completion, to assess the internal rate of return and the net present value of RACP activities and investments. An overall negative EIRR of 5 per cent was registered at completion, compared with a positive 15 per cent at appraisal.
51. **Funds utilization.** Project investment activities and funds disbursement started quite slowly. In fact, at the time of the MTR, the disbursement rate for the IFAD loan was reported as 38 per cent.
52. The total actual cost at project completion, according to the PCR dated January 2017, was equal to 79.5 per cent of the initial budget and 86.6 per cent of the revised budget (without the co-financing that did not materialize). The PCR also showed relatively low disbursement rates for the IFAD funds: 70 per cent for the loan and 58 per cent for the grant. These are significantly lower than the data indicated in the IFAD's database, which shows over 90 per cent<sup>11</sup> (see paragraph 15). Thus, the IFAD funds disbursement and actual contribution by other co-financiers (OFID, Government) can be considered overall satisfactory (all over 90 per cent).
53. **Project management costs.** The proportion of project management cost showed a slight increase (7.1 per cent actual against 6.7 per cent at design). The figure

<sup>7</sup> For the projects in the region approved between 2007-2010.

<sup>8</sup> From RACP Project Design Report (June 2010): total costs at appraisal US\$ 52,345,560/total number of expected beneficiary households 63,050. No cost per beneficiary reported in the PCR.

<sup>9</sup> RIMS Data is not aligned with PCR reported outreach and indicated a total number of 6,635 people receiving Programme services under cumulative targets (vs an appraisal target of 314,700), of which 85 under Component 1 and 6,550 under Component 2.

<sup>10</sup> Appendix 10 in the PCR.

<sup>11</sup> The disbursed amount reported in IFAD system is different from the one indicated in the PCR. ORMS reports: IFAD loan US\$ m 12,209 and IFAD grant US\$ m 488.

itself is reasonable and below the standard (around 10 per cent), but it is necessary to bear in mind the significantly lower level of outputs and outcomes generated in the project.

54. Overall, efficiency was strongly impacted by the few beneficiaries actually reached at project completion, the negative EIRR and the lack of a monitoring and evaluation (M&E) system for FA from the beginning. Hence, this PCRV rates Efficiency unsatisfactory (2), one rating lower than PMD.

### **Rural poverty impact**

55. **Household income and assets.** Main impact on households' incomes and assets was expected from Component 1, as for the estimated increase in the value of land, the impact assessment estimated that the value of a mature orchard could have been three to five times the value of unproductive land. Given the delays in implementation, none of the FA orchards was yet productive. Of the 122 (131 according to FA) contracted landowners, none of them had yet derived any income from their orchards.
56. Most of the plots were left without any irrigation system so far, despite being an MTR target. Therefore, future harvest from the planted orchards is at risk. Provided that the landowners are willing and able to take care of their orchards after Programme completion, these landowners have to bear the costs of irrigation and orchard maintenance for several years before being able to generate some revenues, which will have an immediate, negative impact on their households' finance.
57. Component 2 was expected to have more significant impact on the livelihood of the rural households. It is still too early to assess the financial benefits derived from the rehabilitated irrigation schemes, but the availability of irrigation water is expected to increase the market value of the agricultural land and will shift production to higher value crops such as fruits.
58. **Agricultural productivity and food security.** The FA operations were expected to have an impact on food security indirectly through increased earnings and most notably job creation. Due to the late and incomplete installation of orchards, at project completion the harvest of fruits and nuts have yet to start and therefore farmers have not generated income from their plots.
59. Positive aspects were detected in Component 2 through improved irrigation schemes. Evidence from previous IFAD operations in Armenia (including FMAP) showed that investments in irrigation infrastructure serving also village backyard plots bring immediate and equitable benefits contributing directly to food security. With the redirected focus of RACP infrastructure activities on irrigation under both the PUI and VCI sub-components, it was likely that some of the investments would also directly result in improved supply for the village backyards, hence resulting in a positive impact on food security. However, no evidence of such an impact was provided at time of project completion.
60. **Human and social capital and empowerment.** The chosen approach of leasing land from farmers with the intention of installing high-end technology and operating the orchards exclusively through FA was limiting empowerment. Only one case (in Vayots Dzor) is reported in the PCR of contribution to the creation of social capital with the forming of orchards of adjacent or nearby land owned by several landowners, in line with the original assumption at design that farmers would have succeeded when establishing larger clusters of orchards.
61. Investments in village infrastructure were co-financed by the communities to increase the sense of ownership and enhance sustainability. Under the VCI sub-component, communities and Water Users' Associations jointly prepared investment proposals for irrigation development.

62. **Institutions and policies.** Due to failures in reaching the original expansion of the newly established orchards, the cooperation between FA and farmers (including non-contracted farmers by FA) but also between FA and service providers (including training) did not achieve the envisaged goals. Furthermore, the plan to promote the cooperation in export and quality issues with two governmental agro-related laboratories never came through with the cancellation of Component 1.2.
63. The extent of RACP's impact is difficult to validate given the absence of data and information in the PCR and other documents. At the same time, a more fundamental issue is that despite the efforts in implementing irrigation schemes and promoting capacity building at local level may lay the grounds for positive results, the implementation/outputs were very limited.
64. **Summary – rural poverty impact.** Evidence suggests that the project had a moderately unsatisfactory impact on agricultural productivity and food security, as well as institutions and policies. The expected positive impact on human and social capital and empowerment of farmers and their organizations cannot be assessed at completion. The PCRV rates the project's Impact on Rural Poverty as moderately unsatisfactory (3), in line with PMD.

### **Sustainability of benefits**

65. With regard to FA exit strategy, the revised expected milestones at MTR were not achieved at programme completion or were considered to be unlikely to be achieved, which included: (i) FA breaking even in 2020 (very unlikely); (ii) the establishment of a secure bridge financing 2016-2019 (not realized); (iii) a business plan detailing operations of FA until 2018 developed by 2016 (no valid plan accepted by IFAD);<sup>12</sup> (iv) an agreed exit strategy with contracted smallholder farmers in 2016 (not realized); and (v) an outsourcing agreement signed with private sector companies in 2016 (not realized).
66. The approach of FA did not encourage farmers to get involved in orchard management. Due to difficulties in aggregating land of the farmers in the target regions, FA decided for leasing the land at favourable terms for single landowners. Despite being the leasing offer very attractive to many rural households willing to join into FA contracts, their interest and willingness to join was very little based on the interest in improving farm and orchard management or in new technologies. In many cases farmers provided their land because it was of low value or abandoned land: the driving force into contracts with FA was mostly the perspective of additional income. Farmers expected FA to install all necessary high-end equipment (drip irrigation, hail protection) in the orchards ensuring high yields and thus, high revenues. At project completion, FA reported that farmers showed little interest in participating in planting and maintenance activities, in particular investing in on-field irrigation systems which would be necessary for sustainability of the programme. At completion, a suitable hand-over strategy in the form of the required exit strategy for FA was never finalized and the conditions necessary for a post-Programme sustainability were yet to be provided.
67. Appendix 11 in the PCR ("Re-scoping Fruit Armenia") described in detail three different options for FA's exit scenarios. The most feasible was the liquidation of FA's assets (orchards and nursery, book value US\$ 600,000) and the revenue returned to the Government of Armenia as the 100 per cent shareholder. These exit strategies were presented to the Chief of Staff of the Prime Minister's Office, but no final decision was taken during the PCR mission. As of project completion, the commitment of the Government of Armenia seems to be limited and the stakeholders' interest alone is not sufficient.

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<sup>12</sup> See appendix 10 in PCR.

68. The achievement and outreach under component 2 were much below the target. However, the PCR indicates the high likelihood of sustainability due to interventions benefiting from other IFAD projects. The conditions necessary for a post-Programme sustainability could be considered built up, based on: (i) Water Users' Associations present and able to maintain the systems; and (ii) municipalities and/or service providers ensuring constant provision of drinking water. IFAD financing is still available under the new IFAD project IRFSP to support capacity building activities for operations and maintenance of water supply schemes.
69. The lack of an exit strategy for Fruit Armenia, whose cancellation as "core component" affected part of the programme's sustainability. However, the PIU's commitment and engagement in adopting a conventional approach in rural infrastructure development to improve rural livelihoods, following the well-known 'routines' linked to other IFAD projects, might produce positive results in the future. In light of the analysis above the PCRV concurs with the PCR rating and rates the Sustainability as moderately unsatisfactory (3), same as PMD.

## **B. Other performance criteria**

### **Innovation**

70. RACP's major innovation was expected with the creation of FA as an institutional modality for achieving value chain development in the economic interests of smallholder agriculture. The chosen institutional model was a technology driven approach that had been hardly tested in a similar environment and was not taking the needs of smallholders into consideration. A company driving the fruits and nuts market was innovative and implementing the main component of a Programme in the form of a private sector company was worthwhile to be considered as long as it was managed by the private sector and not by Government institutions.
71. Since the aspect of adopting an innovative approach was the core aspect of the project, this PCRV rates Innovation as unsatisfactory (2), same as the PCR.

### **Scaling up**

72. FA had no future for scaling up and exit strategies have been thoroughly discussed with the Government. However, despite FA management's efforts to find viable solutions, the future of the company was still under evaluation at project completion.
73. This criterion can only be evaluated with regard to Component 2. During the MTR mission, it became evident that the demand for social infrastructure in programme areas continued to be widespread and it was a Government priority. Moreover, the introduction of management contractors for water utilities had clearly improved operations and maintenance of water supply systems in Armenia during the past. However, the fact that RACP's Component 2 was picked up by another IFAD and OFID financed project (IRFSP), does not mean that its results would be scaled up, especially in consideration of the already limited outputs of the programme at completion.
74. Because of the insubstantial verifiable results under Component 2 and the expectations based on the linkage to another IFAD project, this PCRV rates Scaling up moderately unsatisfactory (3), same rating as PMD.

### **Gender equality and women's empowerment**

75. RACP's original design highlighted the fact that women constituted 40 per cent of the work force in agriculture and headed 33 per cent of rural households. However, the document did not include any gender analysis, nor did it provide explanations as per the reasons why women-headed households were more likely to be poor than male-headed households. Unlike in other IFAD-funded projects, the PIU was not requested to prepare a "Gender mainstreaming strategy" to describe the specific targeting mechanisms that would have benefited women equally as men

from Programme implementation. Only in the completion phase of RACP did the M&E division prepare a gender study in target communities benefiting from irrigation rehabilitation project under RACP.

76. According to FA data, as mentioned in the PCR, women reportedly represented 32 per cent of orchards' land-owners, owning an average of 0.80 ha (against 0.69 ha for men). It was not clear at project completion, however, if this figure represented the percentage of women owning the plot of land or the percentage of the contracts signed between FA and a woman co-owner of the land, together with her husband or father. Contrary to the intentions indicated in the Appraisal Report, the PCR found no evidence that FA or the PIU had undertaken efforts that at least 40 per cent of the seasonal and permanent jobs created during Programme implementation were filled by women. However, female seasonal workers were contracted, but the ratio was also depending on the work required in the fields.
77. Based on the lack of a gender strategy and lack of evidence of gender-oriented project efforts and results, the PCRV rates this criterion as unsatisfactory (2), one point lower than PMD.

### **Environment and natural resources management**

78. FA orchard operations were designed in an environmentally sustainable manner, following the environmental codes of the country and the necessary hydrological and hydrogeological assessments were carried out to prevent depletion of water resources as per the national environmental regulations. While piped irrigation supporting the FA orchards addressed issues relating to drought, hail nets should have been introduced as a coping mechanism against hail. The financial cost for hail nets is likely to remain beyond the reach of the primary target group.
79. Given the small scale and mainly rehabilitation nature of interventions, Component 2 was implemented in respect of environmental codes and by referring to other IFAD projects best practices. No major shift in designated land use was considered. The irrigation works did not bring a spatial expansion of farming, as well as the CWS systems. They included mainly improvement of existing systems and quality of the supplied water. The expectations were that the programme interventions would contribute positively to water management by reducing the system losses and in some extent the land degradation as well. The provision of natural gas had the potential of decreasing tree logging in rural areas, where people depended mainly on that activity for heating and cooking.
80. The PCRV rates Environment and Natural Resource Management as moderately satisfactory (4), same as PMD.

### **Adaptation to climate change**

81. The provision of water to the villages enhanced the adaptive capacity of the rural populations in terms of water shortage and helps in the generation of diversification activities – mainly for women – related to home gardens.
82. The gas network and its role in the preservation of the nearby forests also could lead to positive changes in terms of conserving forest cover and the protection of soil. All irrigation investments comprised of piped water distribution systems that would significantly reduce irrigation water losses when compared to old dilapidated networks or open channels. This might have positive outcomes in terms of improved resilience and adaptation to climate change.
83. The expectations on positive results on climate change, despite not being proven by evidence at project completion, were based on plausible assumptions and results from other IFAD projects in Armenia, hence the PCRV rates the criteria as moderately satisfactory (4), same as PMD.

### **C. Overall project achievement**

84. The RACP's challenging design of creating FA significantly compromised the programme's effectiveness and efficiency. The programme's two main components did not complement each other. The component 1 design should have focused on the development phase of first preparing and training farmers before investing in modern technologies. An exit strategy was proposed close to the programme completion but mainly to control the damage post-project. In contrast, Component 2 followed the conventional approach in rural infrastructure development in providing access to gas and water supplies to improve rural livelihoods, with assumed potential results based on other programme's experiences. The outreach was extremely limited.
85. The impact of the programme is difficult to gauge because of the limited outputs. The M&E system was not operational at start and the quality of the impact surveys was questionable. Sustainability potential of programme results is rather low and only related to Component 2, which is still under implementation by linkage to another IFAD project. No evident impact on rural poverty or gender can be assessed; only respect for environmental rules and adaptation to climate change register a positive result for RACP.
86. The PCRV rates the Overall Project Achievement as moderately unsatisfactory (3), in line with PMD's rating.

### **D. Performance of partners**

87. **IFAD.** IFAD provided yearly supervisions and implementation support missions at the outset to iron out problems. IFAD carried out five supervision missions, two technical missions (one to set up the business plan for FA in 2011 and the second in 2012 to provide Technical support to PIU on planning and reporting), three follow up missions, and an MTR mission 3.5 years after the entry into force – well past the midpoint for the five-year project. Notably, a considerably late MTR mission and the intervention of a Business Development Specialist only in 2011 (when FA was not even established) can be considered a shortfall in the IFAD's supervision. The poor design followed by the absence of a closer and more frequent business approach and support, contributed to the failure of FA functioning and performance.
88. The internal QA process considered the proposed project to be risky. From the first Supervision Mission in 2011, it became evident that the establishment of Fruit Armenia was a challenge and that actions needed to be taken in order to keep the implementation process on schedule. IFAD made good recommendations at MTR, which focused on a problem-solving approach and urged to find exit strategies for FA; nonetheless, there was only 1.5 years left after the MTR and the delays in the implementation process considerably compromised the programme's success.
89. Despite contributions by the supervision and other various missions, it needs to be mentioned that the flaws in the programme conceptualization had been evident from the very beginning of the activities. In light of the reasons above, this PCRV rates IFAD's Performance as moderately unsatisfactory (3), one rating below PMD.
90. **Government.** The Programme Audits were done timely and according to the TORs, covering all the aspects required, approved by IFAD, and submitted when needed. Financial Statements were prepared in accordance with standards and procedures and in the form and manner acceptable to IFAD.
91. The PIU had an M&E Unit in place in charge of monitoring Component 2, the consolidation of FA data and for the preparation of the Annual Work Programme and Budget and progress reports. The staff was qualified and was motivated enough to make the attempt to conduct proactively field visits on FA orchards (in some instances the PIU even reported irregularities in the irrigation practices to FA

management). After resignation of the PIU Director in June 2014, the transition into new management was smooth.

92. No baseline survey was conducted at start-up. Instead, an ad-hoc baseline survey was prepared in 2014 by a Georgian consultancy firm some four years after the actual Programme started, but the latest Supervision Mission in 2015 concluded that the study was of poor quality and likely to be of use of completion. Another impact survey was conducted in May 2016, including classic recall questions for the year 2010, trying to compare the pre-project situation with the situation in 2016. Given the fact that rural households have not yet fully benefited from investments and any impact cannot be attributed to Programme activities, the impact survey should have focused also on understanding the intentions of potential beneficiaries regarding gas and CWS connections and orchard maintenance.
93. FA had a limited M&E function in place, only regarding the most basic outreach data for the PIU. There was no attempt by FA M&E Unit to collect important and basic costs of orchards, as well as recording sales data to evaluate FA's profitability.
94. Albeit the Government's commitment to work on a systematic exit strategy for FA after the MTR, actions were slow from the programme inception. The late finalization of the Performance Contract and Strategic Business Plan for FA significantly undermined the potential of success for the company. The Supervision Mission in 2015 highlighted the limited progress made by the Government in addressing the key recommendations of the MTR, notably a decision and a plan on the financing of FA after programme completion. At the time of the PCR, FA management and Board had not been able to prepare solid exit strategies, neither for the company nor for the signed contracts with farmers.
95. Overall, despite the generally good performance of PIU project management for Component 2, the overall programme performance was affected by weaknesses in the conceptualization and the failing in turnaround of FA, for which the Government would be partly responsible. The PCRV rates Government Performance as a Partner as moderately unsatisfactory (3), one rating lower than PMD.

## **IV. Assessment of PCR quality**

### **Scope**

96. The PCR for RACP includes all the sections of the main body as mandated by the Guidelines for Project Completion. The only missing information in the section on efficiency was data on the cost per beneficiary. The project costs are found in the PCR, both estimates at appraisal and actual are found in the PCR (Appendix 7). Table 2 in the PCR defines physical targets and output delivery by Component, including the difference in targets between appraisal and MTR. A more comprehensive logical framework for RACP is in Appendix 4 of the PCR, indicating results at completion both at appraisal and revised log frame. Furthermore, calculation of the Economic Rate of Return has been carried out very elaborately in Appendix 10, through a detailed analysis of RACP Ex-Post Economic and Financial Analysis, FA Joint Stock Company model and Infrastructure Models. Thus, the Scope of the PCR for RACP is rated as satisfactory (5).

### **Quality**

97. The PCR is overall well written and provides a good picture of the project's main achievements, including strengths and weaknesses. It includes robust comments and conclusions on the shortcomings of FA (Appendix 11). Appendix 12 reports findings and remarks of a Stakeholder workshop on the area of discontent brought up by the stakeholders at project completion. However, most likely due to the weaknesses in M&E, outcome-level data are limited and even some of the output level data are not clear (e.g. number of households with *potential* access to...). Furthermore, the disbursement data on the IFAD's loan and grant in the PCR are



notably different from what can be retrieved from the IFAD system and the PCR does not seem to present the final project financing data. PCR Quality is rated moderately satisfactory (4).

### **Lessons**

98. The lessons drawn in the PCR are pertinent and valid. The reference to the shortcomings and challenging aspects of establishing FA are clear and self-critical. Additionally, the PCRV finds that it provides value adding recommendations for improvement of similar projects in future. Considering the above, the PCRV rates the Lessons section of the PCR as satisfactory (5).

### **Candour**

99. The PCR narrative is objective and provides a fair balance between the achievements and shortcomings. Despite providing a rather optimistic scenario regarding Component 2 future accomplishments, the PCR keeps a realistic and critical approach on the problems and challenges encountered during implementation. The PCRV rates Candour satisfactory (5).

## **V. Lessons learned**

### **Lessons learned**

100. Development projects need guidance and control and RACP's steering should have been exclusively with the PIU from the start. FA and the PIU, the two institutions in charge of implementing the Programme, did not complement each other: the synergies expected did not materialize and the Programme design was based on an economic vision that was not yet tested in a similar environment.
101. A more in-depth need assessment of the horticultural community should have been part of the preparation phase and the findings should have been better communicated to the envisaged beneficiaries. While the Rural Infrastructure Component could rely on well-known "routines" able to adapt to changes, the activities of Component 1 could not rely on a robust analysis of farming systems to help prevent shortcomings.

### **Final remarks**

102. RACP's original design was innovative for Armenia, but it counted on a market demand and economic context that were never analysed in depth at appraisal. The establishment of the actual operations of FA was more difficult than expected and ended up being more of a challenge by project completion. The attempt of managing a state-owned company as a private one, in a context where the private sector was already proven to be immature, without an in-depth demand-driven analysis and with significant delays in the decision-making process, made the choice of establishing FA inappropriate and a candidate for failure. Targeted farmers were not ready to thrive on the proposed solutions, both from a technical and managerial point of view. The absence of a business management approach in the establishment of FA contributed to its failure.

## Definition and rating of the evaluation criteria used by IOE

Criteria	Definition *	Mandatory	To be rated
<b>Rural poverty impact</b>	Impact is defined as the changes that have occurred or are expected to occur in the lives of the rural poor (whether positive or negative, direct or indirect, intended or unintended) as a result of development interventions.	X	Yes
	<i>Four impact domains</i>		
	<ul style="list-style-type: none"> <li>Household income and net assets: Household income provides a means of assessing the flow of economic benefits accruing to an individual or group, whereas assets relate to a stock of accumulated items of economic value. The analysis must include an assessment of trends in equality over time.</li> </ul>		No
	<ul style="list-style-type: none"> <li>Human and social capital and empowerment: Human and social capital and empowerment include an assessment of the changes that have occurred in the empowerment of individuals, the quality of grass-roots organizations and institutions, the poor's individual and collective capacity, and in particular, the extent to which specific groups such as youth are included or excluded from the development process.</li> </ul>		No
	<ul style="list-style-type: none"> <li>Food security and agricultural productivity: Changes in food security relate to availability, stability, affordability and access to food and stability of access, whereas changes in agricultural productivity are measured in terms of yields; nutrition relates to the nutritional value of food and child malnutrition.</li> </ul>		No
	<ul style="list-style-type: none"> <li>Institutions and policies: The criterion relating to institutions and policies is designed to assess changes in the quality and performance of institutions, policies and the regulatory framework that influence the lives of the poor.</li> </ul>		No
<b>Project performance</b>	Project performance is an average of the ratings for relevance, effectiveness, efficiency and sustainability of benefits.	X	Yes
Relevance	The extent to which the objectives of a development intervention are consistent with beneficiaries' requirements, country needs, institutional priorities and partner and donor policies. It also entails an assessment of project design and coherence in achieving its objectives. An assessment should also be made of whether objectives and design address inequality, for example, by assessing the relevance of targeting strategies adopted.	X	Yes
Effectiveness	The extent to which the development intervention's objectives were achieved, or are expected to be achieved, taking into account their relative importance.	X	Yes
Efficiency	A measure of how economically resources/inputs (funds, expertise, time, etc.) are converted into results.	X	Yes
Sustainability of benefits	The likely continuation of net benefits from a development intervention beyond the phase of external funding support. It also includes an assessment of the likelihood that actual and anticipated results will be resilient to risks beyond the project's life.	X	Yes
<b>Other performance criteria</b>			
Gender equality and women's empowerment	The extent to which IFAD interventions have contributed to better gender equality and women's empowerment, for example, in terms of women's access to and ownership of assets, resources and services; participation in decision making; work load balance and impact on women's incomes, nutrition and livelihoods.	X	Yes
Innovation	The extent to which IFAD development interventions have introduced innovative approaches to rural poverty reduction.	X	Yes
Scaling up	The extent to which IFAD development interventions have been (or are likely to be) scaled up by government authorities, donor organizations, the private sector and other agencies.	X	Yes
Environment and natural resources management	The extent to which IFAD development interventions contribute to resilient livelihoods and ecosystems. The focus is on the use and management of the natural environment, including natural resources defined as raw materials used for socio-economic and cultural purposes, and ecosystems and biodiversity - with the goods and services they provide.	X	Yes
Adaptation to climate change	The contribution of the project to reducing the negative impacts of climate change through dedicated adaptation or risk reduction measures.	X	Yes

<i>Criteria</i>	<i>Definition</i> *	<i>Mandatory</i>	<i>To be rated</i>
<b>Overall project achievement</b>	This provides an overarching assessment of the intervention, drawing upon the analysis and ratings for rural poverty impact, relevance, effectiveness, efficiency, sustainability of benefits, gender equality and women's empowerment, innovation, scaling up, as well as environment and natural resources management, and adaptation to climate change.	X	Yes
<b>Performance of partners</b>			
• IFAD	This criterion assesses the contribution of partners to project design, execution, monitoring and reporting, supervision and implementation support, and evaluation. The performance of each partner will be assessed on an individual basis with a view to the partner's expected role and responsibility in the project life cycle.	X	Yes
• Government		X	Yes

\* These definitions build on the Organisation for Economic Co-operation and Development/Development Assistance Committee (OECD/DAC) Glossary of Key Terms in Evaluation and Results-Based Management; the Methodological Framework for Project Evaluation agreed with the Evaluation Committee in September 2003; the first edition of the Evaluation Manual discussed with the Evaluation Committee in December 2008; and further discussions with the Evaluation Committee in November 2010 on IOE's evaluation criteria and key questions.

## Rating comparison<sup>a</sup>

<i>Criteria</i>	<i>Programme Management Department (PMD) rating</i>	<i>IOE Project Completion Report Validation (PCRVR) rating</i>	<i>Net rating disconnect (PCRVR-PMD)</i>
<b>Rural poverty impact</b>	3	3	0
<b>Project performance</b>			
Relevance	4	3	-1
Effectiveness	3	2	-1
Efficiency	3	2	-1
Sustainability of benefits	3	3	0
<b>Project performance<sup>b</sup></b>	3,25	2,50	-0,75
<b>Other performance criteria</b>			
Gender equality and women's empowerment	3	2	-1
Innovation	2	2	0
Scaling up	3	3	0
Environment and natural resources management	4	4	0
Adaptation to climate change	4	4	0
<b>Overall project achievement<sup>c</sup></b>	<b>3</b>	<b>3</b>	<b>0</b>
<b>Performance of partners<sup>d</sup></b>			
IFAD	4	3	-1
Government	4	3	-1
<b>Average net disconnect</b>			<b>-6/12=-0.50</b>

<sup>a</sup> Rating scale: 1 = highly unsatisfactory; 2 = unsatisfactory; 3 = moderately unsatisfactory; 4 = moderately satisfactory; 5 = satisfactory; 6 = highly satisfactory; n.p. = not provided; n.a. = not applicable.

<sup>b</sup> Arithmetic average of ratings for relevance, effectiveness, efficiency and sustainability of benefits.

<sup>c</sup> This is not an average of ratings of individual evaluation criteria but an overarching assessment of the project, drawing upon the rating for relevance, effectiveness, efficiency, sustainability of benefits, rural poverty impact, gender, innovation, scaling up, environment and natural resources management, and adaptation to climate change.

<sup>d</sup> The rating for partners' performance is not a component of the overall project achievement rating.

### Ratings of the project completion report quality

	<i>PMD rating</i>	<i>IOE PCRVR rating</i>	<i>Net disconnect</i>
Candour		5	
Lessons		5	
Quality (methods, data, participatory process)		4	
Scope		5	
Overall rating of the project completion report		5	

Rating scale: 1 = highly unsatisfactory; 2 = unsatisfactory; 3 = moderately unsatisfactory; 4 = moderately satisfactory; 5 = satisfactory; 6 = highly satisfactory; n.p. = not provided; n.a. = not applicable.

## Summary of amendments to the loan agreement

Category	Loan Allocation in SDR			Grant Allocation in SDR		
	As per Original Loan Agreement dated 30 November, 2010	As per Amendment dated 8 November 2013	As per Original Loan Agreement dated 30 November, 2010	As per Amendment dated 8 November 2013	As per Amendment dated 12 August 2015	As per Amendment dated 12 August 2015
<b>1 Civil Works For</b>						
(a) Contracted Works for Rural Transportation Infrastructure	730.000	-				
(b) Design and Supervision for Rural Transportation Infrastructure	65.000	-				
(aa) Contracted Works for Value Chain Infrastructure		730.000				
(bb) Design and Supervision for Value Chain Infrastructure		65.000				
(aaa) Construction / Rehabilitation of Public Utilities, Water Supplies, Natural Gas supplies and storm water drainage system.			4.275.293			
(bbb) Construction/Rehabilitation of Public Infrastructure and Water Supply			909.290			
(ccc) Design and supervision of works and engineering services.			469.777			
II Equipment:Goods and Vehicles	110.000	110.000	110,000			
III Training: Technical Assistance and Specialist service	370.000	370.000	191,108			154,278
IV Fruit Armenia Financing	6.720.000	6.720.000	2,189,532	330,000	330,000	175,772
V Recurrent Costs	755.000	755.000	755,000			
VI Unallocated	150.000	150.000	-			
[ See Note ]	<b>8,900,000</b>	<b>8,900,00</b>	<b>8,900,000</b>	<b>330,000</b>	<b>330,000</b>	<b>330,000</b>

Note: In the first amendment there was no change in the amount of allocation. However, civil works as well as design and supervision of civil works were now planned to be made for rural value infrastructure from that of rural transportation infrastructure as originally envisaged. Based on a recommendation of the MTR, in the final amendment, substantial part of FA Financing was reallocated to a new type of civil works namely construction and rehabilitation of public utilities, water supplies, natural gas and storm water drainage system.

The category of Fruit Armenia Financing was substantially slashed down and funds reallocated to civil works for public utilities and value chain infrastructure. Legend (a) and (b) represents the names of the category as originally proposed. These have been renamed as (aa)/(bb) and (aaa)/(bbb) to indicate the change in the nature of category on each amendment of the loan agreement which was amended twice.

## Rural Assets Creation Programme logical framework

Appraisal log frame		Results at completion (30 June 2016)	% appraisal target met	Revised log frame		Results at completion (30 June 2016)	% MTR target met
Expected results	Verifiable Indicators			Expected results	Verifiable Indicators		
<b>Goal:</b> Rural poverty in Armenia reduced.	10% reduction in the number of rural people living on < US\$ 4.30/day.	<b>Not measured, but assumed nil.</b>	<b>0%</b>	<b>Goal:</b> Rural poverty in Armenia reduced.	10% reduction in the number of rural people living on < US\$ 4.30/day.	<b>Not measured, but assumed nil.</b>	<b>0%</b>
	At least 20% of households involved in RACP activities increase household asset ownership.	<b>Not measured, but assumed nil.</b>	<b>0%</b>		At least 20% of households involved in RACP activities increase household asset ownership.	<b>Not measured, but assumed nil.</b>	<b>0%</b>
<b>Development objectives:</b> Viable fruits and nuts sector with backward linkages to poor rural smallholders established. Fruit Armenia fully privatised.	At least 10% increase in exports of fruits and nuts by PY5.	<b>No results.</b>	0%	<b>Development objectives:</b> (i) Increased incomes and assets generated by small-scale producers, and small and medium sized agricultural product processors providing impact on poverty groups; (ii) Improved quality of life of target population. (iii) Fruit Armenia on track to become operationally sustainable by	10% increase in income for target households participating in the Programme activities resulting from investments by end PY 6.	<b>Not measured, but assumed nil.</b>	<b>0%</b>
	At least 10% of commercially oriented farmers in the sector have established contractual arrangements by PY5.						
	At least 1500 full-time and seasonal jobs created by PY5.	<b>No data.</b>	n.d.				
	A minimum of 1 500 additional rural poor smallholder farmers take up at least one of improved technologies by PY5.	<b>Not achieved.</b>	0%				
	At least 3 000 ha of land put under fruits/nut production.	<b>85 ha of orchards established</b>	3%				
	A business plan detailing key milestones for privatisation developed by PY 3.	<b>No valid business plan accepted by IFAD.</b>					
	Fruit Armenia fully privatised by PY 8.	<b>Not achieved.</b>					
				Fivefold increase in the value of land put under orchards by Fruit Armenia.	<b>Current estimated value of a productive orchard is reported to be 3 to 5 times the value of unproductive land. However, there are no productive orchards at completion.</b>	<b>0%</b>	

Appraisal log frame		Results at completion (30 June 2016)	% appraisal target met	Revised log frame		Results at completion (30 June 2016)	% MTR target met
Expected results	Verifiable Indicators			Expected results	Verifiable Indicators		
				2016.			
Outcomes				Outcomes			
Human and financial assets of participating households sustainably improved.	At least a fivefold increase in the value of fruit/nut orchard land.	Current estimated value of a productive orchard is reported to be 3 to 5 times the value of unproductive land. However, there are no productive orchards at completion.	3%	Human and financial assets of participating households sustainably improved.	At least 80 ha of land of smallholder farmers put under fruits/nut production.	85 ha of orchards planted with nut fruit trees.	106%
					A business plan detailing operations of FA until 2028 developed by 2016.	No valid plan accepted by IFAD.	0%
					Fruit Armenia consolidated by 2016.	FA not yet consolidated and at risk financially and economically.	0%
	A reduction of at least 50% in wood used for heating/ cooking in villages where gasification introduced by PY5.	Not measured, but assumed to be negligible as only 1214 households are connected to gas.	n.d.		A reduction of at least 50% in wood used for heating/ cooking in villages where gasification introduced by PY5.	Very few gas or water pipe connections yet. Some anecdotal evidence that some of the few connected households use the water for backyard garden irrigation.	0%
					At least 10% reduction in work days lost.		
At least 10% reduction in work days lost.	Not measured, but assumed to be nil.	0%	Effectiveness of productive infrastructure on 1,700 ha of farmland increased through improved irrigation efficiency.				
Outputs				Outputs			
1. Private sector based joint stock company set up.	1.1. Fruit Armenia breaks even by PY4.	Not achieved.	0%	1. Fruit Armenia: Private sector based joint stock	1.1. Fruit Armenia breaks even in 2020.	Appears very unlikely.	0%

Appraisal log frame		Results at completion (30 June 2016)	% appraisal target met	Revised log frame		Results at completion (30 June 2016)	% MTR target met
Expected results	Verifiable Indicators			Expected results	Verifiable Indicators		
				company set up.			
	1.2. At least 7 nurseries procure stocks from Fruit Armenia by PY 5.	<b>Not achieved.</b>	<b>0%</b>		1.2. Secured bridge financing 2016-2019.	Not realized.	<b>0%</b>
	1.3. Fruit Armenia establishes contract farming arrangements with at least 450 poor smallholder farmers by PY5.	<b>Contracts established with 131 landowners, but improper contract farming arrangements.</b>	<b>27%</b>		1.3. A business plan detailing operation of FA until 2028 developed by 2016.	<b>No valid plan accepted by IFAD yet.</b>	<b>0%</b>
	1.4. At least 300 ha of new orchard land put under production by PY3.	<b>85 ha of orchards established</b>	<b>28%</b>		1.4. Agreed exit strategies with contracted smallholder farmers in 2016.	<b>Not realized.</b>	<b>0%</b>
					1.5. Outsourcing agreements signed with private sector companies in 2016.	<b>Not realized.</b>	<b>0%</b>
2. Internationally acceptable certification facilities established.	2.1. 40% increase of fruits and nuts production that meets international quality standards by PY 5.	<b>Not achieved. No productive orchards at completion.</b>	<b>0%</b>	2. Public utilities services: Rural Infrastructure that improves livelihoods and facilitates commercial farming put in place.	2.1. 33,750 Households receiving (infrastructure) Programme services	<b>16832 households with potential access to improved infrastructure</b>	<b>50%</b>
	2.2. At least two certification facilities financially sustainable by PY 5.	<b>Not achieved.</b>	<b>0%</b>		2.2. 130 Communities receiving (infrastructure) Programme services	<b>81 rural town or villages with improved irrigation, drinking water or gas infrastructure</b>	<b>62%</b>
3. Rural infrastructure that facilitates commercial farming put in place.	3.1. At least 15 villages connected to markets by feeder roads (40 km) by PY5.	<b>Not achieved.</b>	<b>0%</b>	3. Value chain infrastructure: Rural infrastructure that facilitates	3.1. 95 communities benefitting from gas	<b>51 rural towns or villages (54% of MTR target) connected to the secondary gas distribution network.</b>	<b>54%</b>



Appraisal log frame		Results at completion (30 June 2016)	% appraisal target met	Revised log frame		Results at completion (30 June 2016)	% MTR target met
Expected results	Verifiable Indicators			Expected results	Verifiable Indicators		
	3.2. At least 20% reduction in post-harvest losses after road construction.	<b>Not achieved.</b>	<b>0%</b>	commercial farming put in place.	3.2. 25,000 Households benefiting from gas	<b>14,873*</b> households may potentially be connected to the gas network (59% of MTR target); but only 1310 (5% of MTR target) were actually connected at completion. (OFID financing)	<b>5%</b>
	3.3. Gasification of 95 villages (about 100 000 households) completed by PY 5.	<b>51 rural villages and towns connected (54% target), with 6368 households (6% target) that may potentially be connected to the gas network; but only 1214 (1% target) were actually connected at completion.</b>	<b>1%</b>		3.3. 35 Drinking Water Systems constructed/rehabilitated		<b>74%</b>
	3.4. Improved drinking water supply provided to at least 35 villages (33 000 households) by PY 5.	<b>14 communities with improved drinking water supply (40% target) potentially benefitting 6861 households (21% target); but 0 households connected at completion.</b>	<b>0%</b>		3.4 8,250 HH benefiting from Drinking Water Systems constructed/rehabilitated	<b>12,736 households can potentially be connected (154% MTR target), but none were yet connected at completion. (6,861 HHs for IFAD; 5,875 HHs for OFID)</b>	<b>0%</b>
<i>Additional results achieved (not planned at appraisal but agreed post MTR) are presented in MTR log frame.</i>						<b>26 communities with an improved drinking water supply system.</b>	<b>74%</b>
					3.5 400 ha of land under irrigation schemes rehabilitated benefitting 500 HHs (OFID)	<b>550 ha of command area under the rehabilitated irrigation schemes (OFID financing)</b>	<b>138%</b>

Appraisal log frame		Results at completion (30 June 2016)	% appraisal target met	Revised log frame		Results at completion (30 June 2016)	% MTR target met
Expected results	Verifiable Indicators			Expected results	Verifiable Indicators		
						2,180 households in the command area of improved irrigation schemes (436% MTR target) (OFID financing).	436%
						No data.	n.d
						29.6 km of irrigation canals rehabilitated with IFAD financing, with an expected command area of 852 ha (48% MTR target).	122%
					3.6. 700 ha farmland under irrigation schemes constructed /rehabilitated benefitting 1,200 HH across 12 Rural Communities (IFAD)	1423 households in the command area of rehabilitated irrigation schemes (52% of MTR target)	119%
						11 communities with access to improved irrigation system.	92%
					3.7. 10% increase of area under orchards in rehabilitated irrigation schemes.	No data.	n o d a t a
					3.8 . 12 processors engaged with primary producers in rehabilitated irrigation schemes.	No achievements.	0%
					4 Municipal Water Management Units strengthened	Staff of 2 municipalities trained	50%

Annex IV

Appraisal log frame		Results at completion (30 June 2016)	% appraisal target met	Revised log frame		Results at completion (30 June 2016)	% MTR target met
Expected results	Verifiable Indicators			Expected results	Verifiable Indicators		
					Improved WASH awareness across 22 villages	<b>22 villages sensitized</b>	<b>100%</b>
					Pilot wastewater facilities serving 3 villages	<b>Schools and portion of village covered in 3 villages</b>	<b>50%</b>
					Pilot solar heating systems in 5 villages	<b>Installed in 4 villages</b>	<b>80%</b>

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## **Abbreviations and Acronyms**

CWS	Community Water Supply
EIRR	Economic Internal Rate of Return
FA	Fruit Armenia
FMAP	Farmer Market Access Programme
IRFSP	Infrastructure and Rural Finance Support Programme
M&E	Monitoring and Evaluation
MTR	Mid-term Review
OFID	OPEC Fund for International Development
PCR	Project Completion Report
PCRV	Project Completion Report Validation
PIU	Programme Implementation Unit
PMD	Programme Management Department
PUI	Public Utilities Investments
QA	Quality Assurance
RACP	Rural Asset Creation Programme
RAEDP	Rural Areas Economic Development Programme
VCI	Value Chain Infrastructure