Independent Office of Evaluation

IFAD
Investing in rural people

Project Completion Report Validation

Agricultural Value Chains Support Project
Republic of Senegal
Date of validation by IOE: December 2018

I. Basic project data

			Approval (US$ m)		*Actual (US$ m)*	
Region	West and Central Africa	Total project costs	37.53[1]		24	
Country	Senegal	IFAD loan and percentage of total	14.90	40%	14.8	62%
Loan number	752-SN; 2000001251	IFAD supplementary loan and percentage of total	0.9	2%	0.17	1%
Grant number	1051-SN	IFAD grant and percentage of total	0.27	1%	0.23	1%
Type of project (subsector)	Agricultural development – value chain	Borrower	5.75	18%	1.15	5%
Financing type	Loan and grant	Cofinancier 1 OFID	9.03	24%	2.40	10%
Lending terms*	Highly concessional	Cofinancier 2 FEM (grant)	5.00	13%	2.40	10%
Date of approval	11/09/2008					
Date of loan signature	08/10/2008	Beneficiaries	1.68	4%	2.75	11%
Date of effectiveness	05/02/2010	Other sources				
Loan amendments	January 2016	Number of beneficiaries	32,000 households 320,000 beneficiaries		37,734 households (direct) 377,340 beneficiaries	
Loan closure extensions	-	Project completion date	31/03/2016		31/03/2016	
Country programme managers	Benoit Thierry (current) Luyaku Loko Nsimpasi (former)	Loan closing date	30/09/2016		30/09/2016	
Regional director(s)	Lisandro Martin (current) Ides de Willebois	Mid-term review (MTR)			13/09/2014	
Project completion report reviewer	Diane Abi Khalil	IFAD loan disbursement at project completion (%)			97%	
Project completion report quality control panel	Michael Carbon Fumiko Nakai Ernst Schaltegger	Date of the project completion report			24/01/2017	
* highly concessional terms.						

Source: Appraisal Report, President's report, Project Completion Report, IFAD ORMS.

[1] Revised financing plan. The approved cost at design amounted for US$31.6 million. See paragraph 5 on financing.

II. Project outline

1. **Introduction.** The Agricultural Value Chains Support Project (PAFA) was approved in September 2008, the loan was signed in October 2008, and the project became effective in February 2010. Activities started in 2011. The project was completed in March 2016 and the loan was closed in September 2016. The Project Completion Report (PCR) was cleared by the Programme Management Department (PMD) in January 2017. The project is followed by the PAFA-Extension project, which aims at consolidating the achievements of PAFA, adding the district of Louga to its geographical coverage.

2. **Project area.** The project operates in the heart of the Groundnut Basin of Senegal. This geographical area represents 57 per cent of the country's arable land. It is characterized by a high poverty rate (almost 61.5 per cent),[2] irregular rainfall, soil degradation and a lack of agricultural diversification. The basin suffered from a serious crisis of the groundnut-based economy that led to a drop in incomes and affected local food security. PAFA was designed to address these constraints and was implemented in four districts.[3] Site selections was based on the homogeneity of their agro-ecological characteristics, where five priority chains were retained (millet, cowpea, sesame, bissap[4] and farm poultry).

3. **Project goal, objectives and components.** PAFA was designed under the 2004 Country Strategic Opportunities Paper which focused on local development through stakeholder’s empowerment and local potential enhancement. PAFA's goal, as defined in the Project Design Document in 2008 was to sustainably improve the incomes and livelihoods of family farms in the Groundnut Basin, through their integration in profitable value chains. The two specific objectives were: (i) to support the development of productive activities by small producers, based on contractual arrangements with Market Operators (MOs),[5] in the framework of priority value chains taking advantage of the local agro-ecological potential; and (ii) to support all value chain stakeholders to participate actively in dialogue, at regional and national levels, to implement actions likely to overcome constraints within the value chains, and to create an enabling environment for their development. Initially the project was designed with three components to which two others (D and E) were added in 2013. Those were:

   A. *Agricultural diversification and access to local market* (estimated cost of US$10,116,000), which proposed to finance the support to the production within the framework of partnerships between one or more Producers' Organizations (POs) and the MOs;
   B. *Development and structuring of value chains at the regional level* (estimated cost of US$13,809,000) which aimed at supporting the dialogue between stakeholders, the implementation of actions likely to overcome constraints within the value chain, the establishment of community infrastructure;
   C. *National dialogue, knowledge management and project coordination* (estimated cost of US$7,684,000);
   D. *Adaptation to climate change in terms of watershed management and water retention* (estimated cost of US$5,000,000) that aimed at developing the local population's resilience and their food production system in terms of climate change impact (Global Environment Facility [GEF] grant);

[2] PAFA Design report, 2008.
[3] Kaolack, Kaffrine, Diourbel et Fatick.
[4] Bissap is Roselle, a Hibiscus species.
[5] An economic stakeholder within the value chain who buys the production from POs and sells it on local and national market.

E. *Support to rural finance* through the SAFIR[6] which aimed at improving access to finance and was linked to another IFAD-financed projects in Senegal (Promotion of Rural Entrepreneurship Project Phase II, PROMER-II).

4. **Target group.** The project targeted small family-run farms focusing on: smallholders with limited family labor, limited production capacity and low agricultural incomes, in small and often degraded land holdings; women and their associations; and unemployed rural youth. The project also targeted key stakeholders for facilitating the integration of the target group in the supported value chains such as POs and MOs. The project's priority value chains were identified on the basis of their potential profitability and their accessibility by targeted groups. It was estimated that 32,000 households/320,000 beneficiaries would benefit from the project, of whom 140,000 as direct beneficiaries of sub-projects.

5. **Financing.** The total cost of the project at design was US$31.61 million and US$24 million at completion. IFAD's contribution was through a loan of US$14.89 million and a grant of US$267,000. In September 2015, the IFAD Executive Board approved a supplementary loan of US$900,000 for agricultural production which became effective in 2016. PAFA was to be co-financed by the OPEC Fund for International Development (OFID) with a contribution of US$9.03 million. The expected contribution of the Government was estimated at US$5.75 million in counterpart funds. The beneficiary contribution was estimated at US$1.7 million. In 2013, a GEF grant of US$5 million was mobilised to finance an additional component (adaptation to climate change) increasing the project cost to US$37.50 million. Table 2 does not include the cost of component E. *Support to rural finance* through the SAFIR. The latter was financed by the West African Development Bank under the IFAD-financed PROMER-II. The cost of this component was not reflected in the PAFA costing.

Table 1
Project costs ($US)

Funding source	*Planned expenditure at appraisal*	*Planned expenditure during implementation*	*Actual expenditure*	*% Disbursed*
IFAD (loan)	14 889 000	14 889 000	14 433 000*	97
IFAD (sup loan)		900 000	168 000	19
IFAD (grant)	267 000	267 000	217 000	88
OFID	9 030 000	9 030 000	2 380 000	26
Government	5 750 000	5 750 000	1 155 000	20
Beneficiaries	1 680 000	1 680 000	2 750 000	164
GEF (grant)	-	5 000 000	2 421 000	48
Total	31 616 000	37 516 000	23 992 300	64

Source: Appraisal Report, Project Completion Report, IFAD Business intelligence
* According to the IFAD database, US$13.86 million, 93 per cent of the disbursement rate. However, in the currency of the loan (SDR), the disbursement is almost 100 per cent.

[6] *Service d'appui à la finance rurale* in French. This was a rural finance support unit established under the PROMER-II with the aim to provide guidance for the rural finance operations of ongoing IFAD-supported projects in Senegal. SAFIR was expected to: (i) facilitate linkages between MSEs and partner MFIs; (ii) build the capacity of partner MFIs to design and adapt products and services for rural MSEs; (iii) finance the creation of up to 16 new credit unions (buildings, equipment, training and non-reimbursable financial support) in regions not covered by existing MFIs; and (iv) assure capacity-building and institutional support to MFIs and their apex organizations. (PROMER-II president's report)

Table 2
Component costs

Component	Allocation at Appraisal	Planned expenditure during implementation	Total expenditure	% Disbursed
a. Agricultural diversification and access to local market	10 116 000	10 116 000	7 847 000	78
b. Development and structuring of value chain	13 809 000	13 809 000	6 031 000	44
c. National dialogue, knowledge management and project coordination	7 684 000	7 684 000	7 063 000	92
d. Adaptation to climate change		5 000 000	2 421 000	48
e. Support to rural finance	-		-	
Total	31 609 000	36 609 000	23 362 000[7]	64

Source: Project Completion Report, IFAD Business Intelligence.

6. PAFA performance indicators were adjusted at its start and at mid-term to improve the monitoring and evaluation system. Platforms, family farm advisors, local consumption initiatives and other initiatives were introduced during the implementation in order to improve the effectiveness and impact of the project.

7. **Intervention logic.** The development of pro-poor value chains was expected to improve incomes and food security in the Groundnut basin. This would be achieved through agricultural diversification and access to market, development of infrastructure, stakeholder capacity building and strengthening of the voice of smallholder producers in decision-making and policymaking at local, regional and national levels. The emphasis on strengthening POs (particularly of producers and women) would allow them to increase their influence on the development process and widen the range of services they can provide to their members through new forms of partnership. They would thereby obtain easier access to markets and a more equitable distribution of benefits. Regional consultative forums, national inter-professional forums and annual participatory evaluation workshops would be organized. Those would encourage learning and help tackle difficulties at different links of the value chains. A key assumption was the existence of a favorable economic environment; more precisely that the market operators would be motivated enough to collaborate with POs and that both would be capable of mobilizing financial resources. Another assumption was related to the willingness of the Government to participate in policy dialogue to improve the political and legislative environment for value chain development.

8. External factors that would affect the results of the project were related to irregular rainfall patterns due to climate change, the lack of access to inputs by the poorest producers and the competition for resources.

9. **Project implementation.** About 17 months passed between project approval and effectiveness. No significant developments in the project context occurred during implementation. At mid-term, the logical framework was modified to include

[7] The PCR did not specify under which component the supplementary loan funds were spent. These are therefore not included in table 2, hence the differences in total costs with table 1.

additional indicators that would facilitate the follow up of activities. The subprojects for market access (SPMAs) mechanism were also reviewed. In 2013, two components were added: (i) adaptation to climate change financed by a GEF grant; and (ii) support to rural finance (SAFIR). Due to its delayed start, the GEF component had to be shortened from four to two and a half years. The SAFIR had been put in place in 2007 for another project[8] and was financed by the West African Development Bank. It aimed at facilitating access to financial services for POs and micro and small rural enterprises. Other adjustments were introduced during the implementation phase to improve the effectiveness and impact of the project. An IFAD supplementary loan of US$900,000 was mobilized in 2016 to finance activities related to the promotion of agricultural products.[9]

10. **Delivery of outputs.** Overall, the outputs for the original three components were largely delivered exceeding in many cases the initial targets (comp a, b & c). The number of beneficiaries reached 120 per cent of the initial target (almost 37,700 households compared to the initial target of 32,000 households). Infrastructure development activities under component B faced delays in implementation due to the late mobilization of OFID loan resources[10] and difficulties to mobilize required contributions from local authorities and beneficiaries.[11] Component D did not fully reach its output targets either due to delays in mobilising the GEF grant and to slow administrative procedures related to procurement.[12] A list of outputs delivered by PAFA against targets can be found in Annex III.

III. Review of findings

A. Core criteria

Relevance

11. PAFA was to a great extent aligned with government strategies. The value chain concept and application are defined by the Agro-Sylvo-Pastoral Orientation Law. The project was also in line with the Poverty Reduction Strategy Paper 2006-2011 and other rural and agricultural development strategies, which all aim at creating an enabling environment for transforming family farming into an effective income generating sector, based on the diversification and increase of production, as well as the development and structuring of agricultural value chains. The project was also fully in line with IFAD policies and the 2004 and 2010 Senegal Country Strategic Opportunities Papers which focused on the increase of economic activity in rural areas, access to markets, financial services and better services for increased production, technologies and market.

12. **Project design.** The project design was relevant and flexible focusing on economic profitability, providing a significant role for PO and MO and promoting dialogue among all players in the prospect of creating a market-chain system. The highly participatory approach proved very relevant as it puts the beneficiaries at the center of the project.

13. While PAFA gave major attention to financial aspects for the value chain, some assumptions at appraisal proved unrealistic and overestimated the financial potential of stakeholders/partners. The project assumed that MO would be willing to pre-finance agricultural inputs for producers and did not include any provision of partnering with the national banking system in support of value chains. PAFA relied on SAFIR - that was to come to an end in 2016 - to mediate with credit institutions. PAFA focused on relations between stakeholders at the upstream level of the value

[8] Under the " Promotion of Rural Entrepreneurship -PROMER-II. "
[9] PAFA, "Amendement à l'accord financement" January 2016.
[10] 24 months after the start of the Project.
[11] For rural roads, 10 per cent of costs were to be covered by local authorities. For irrigation schemes, 20 per cent of costs were to be covered by the beneficiaries. The required amounts at times exceeded their financial capacity. It was recommended by supervision and MTR missions to reduce the required contributions but this was not followed through.
[12] Outputs under the "Households adapting resilient livelihood strategies in the face of climate change" subcomponent reached a very low execution rate (7 per cent).

chain at a local level, and less on the relations with final markets, which might also explain the difficulties for local stakeholders, precisely PO and MO, in accessing financial services.

14. **Relevance of targeting.** The context analysis allowed the project to target agro ecological zones with a high potential for the diversification of income sources and improving food security. The targeting strategy was based on the selection of priority value chains, taking into account crops/livestock that were well known and accessible to small producers (vulnerable household, women and young people) either for home-consumption or for selling, and also considering the immediate impact that these value chains could have on food security. The project was to promote an inclusive approach favouring the most vulnerable groups amongst direct beneficiaries. The strategy aimed at facilitating the access of the target groups to the project-supported activities (including production, processing and marketing) and at fostering their representation in the governing bodies of the POs and the marketing boards supported by the project. The recruitment of a specialist in inclusion/gender equity within the project coordination unit was an adequate element of the targeting strategy.

15. **In summary,** PAFA was in line with government priorities in agricultural development and with IFAD strategies. It was designed according to the beneficiaries' needs and priorities and the economic potential of the covered regions. The targeting approach was relevant and was scaled up by other IFAD projects. However, access to finance was a weak point and assumptions related to financial arrangements and services were very optimistic. The PCRV rating for relevance is *satisfactory (5).* This is one rating below the PMD rating (6).

Effectiveness

(i) Development of profitable economic activities by small producers, based on contractual arrangements with MO, in the framework of promising value chains that take advantage of local agro-ecological potential.

16. The development of profitable economic activities by small producers has been largely achieved through the partnership between POs and MOs and the creation of SPMAs,[13] considered the main intervention mechanism of the project at the level of small producers. The project financed 333 SPMAs (222 per cent of the initial target) for the value chain of millet, cowpea, sesame, bissap, maize and poultry rearing, reaching 148 per cent of the target in terms of number of beneficiary households. The SPMAs contributed to an increase in cultivated lands (175 per cent of the initial yearly target) and a substantial increase in yields (244 per cent per cent), allowing a surplus in production. These were possible thanks to improved agricultural practices, the use of certified seeds and fertilizers, and better access to inputs and equipment. Access to market was guaranteed thanks to the partnership between POs and MOs, facilitating marketing of production surplus, which, in turn, led to an increase in income for beneficiaries. 313 contracts for production marketing were signed between POs and MOs, and these were renewed on a yearly basis.[14] These partnerships presented an opportunity for producers to secure a buyer (i.e. a MO) and thus to market their production surplus at planned date and profitable prices. In general, there was strong loyalty between both stakeholders which contributed to the sustainability of these arrangements, even if there were a few cases where MOs did not respect the terms of contract, mainly because of solvency problems.

17. With regards to the poultry rearing, which is mainly headed by women, no initial targets were set in the logical framework. Positive results were noted with an

[13] A SPMA is a micro-project of agriculture and poultry production. It includes a package of: agricultural inputs and equipment, farm advisory, and capacity strengthening of POs.
[14] PCR, Working document : Appui aux organisations paysannes, p. 128.

increase in average animal numbers from ten to 40-60 per farm. A poultry rearing platform[15] buys the poultry from the beneficiaries, at a competitive price compared to the market price. The development of horticulture schemes contributed also to the achievement of this objective.[16] It contributed to remunerative employment for young people, although the PCR did not provide quantitative data in this regard. Delays were registered in the implementation due to delays in mobilizing the financial resources of OFID.

(ii) Help all stakeholders in the sectors to participate actively in dialogue, at regional and national levels, to implement actions likely to overcome constraints within the value chains, and to create an enabling environment for their development.

18. This objective was achieved through the development and structuring of value chains. Priority value chains were structured through the creation of marketing boards for value chains that gathered the main stakeholders at the local level. They were officially recognized at the national level and registered as National Inter-professional Organizations for Value Chains (NIVCOs),[17] favoring national dialogue and knowledge management. The project financed 98 subprojects for value chain development (SPVD)[18] (327 per cent of the initial target), which is likely to have contributed to overcoming constraints within the value chains, through the marketing boards. The SPVD included: (i) the production and multiplication of seeds by POs and their certification making them available to beneficiaries; (ii) the dissemination of good practices for agriculture; and (iii) building warehouses for storing and packaging. The SPVD contributed also to the promotion and the consumption of local products. This has resulted in introducing meals in restaurants prepared with local products. Millet-based baby food was produced and sold in pharmacies and major food retailers, in partnership with Nestlé. The creation of several planning and coordination platforms helped improve the capacities of different stakeholders and played an active role in value chain development. Access to market was improved thanks to the partnership between POs and MOs, as mentioned under objective (i).

19. As mentioned under relevance, access to financial services was a weak point. The project did not secure a sustainable access to rural finance for PO as the system put in place relied on SAFIR which ended in 2016. Moreover, the financial internal model that relied on MOs, who were supposed to pre-finance agricultural inputs for producers, did not work due to their limited financial capacities and the participation of the private sector was limited.

20. **Factors in project design and implementation that account for estimated results.** The effectiveness of the project was enhanced by the high participation and ownership of the beneficiaries. It was also enhanced by the partnerships with various public structures and POs which contributed to the results achieved. The technical assistance on Public-Private-Producer Partnerships financed by the IFAD grant and implemented through the SNV[19] is likely to have contributed to the good results. It addressed issues related to business plans for investment with the NIVCOs (developing business plans, capacity building in terms of management and marketing).[20]

21. Achievements were also possible thanks to key factors such as:

[15] A service platform that aims at rendering the value chain of poultry rearing more efficient. It offers its members advisory services and a framework that allows them to comply with set standards.
[16] PAFA supported the establishment and/or equipped 22 horticultural schemes (73,85 on 100 hectares planned), benefiting almost 1,085 beneficiaries of whom 72 per cent women. (PCR PAFA)
[17] Cadres Nationaux d'Interprofession de la Filière.
[18] A SPDV is a subproject that fosters the development and structuring of a value chain by promoting dialogue among the different stakeholders and identifying actions likely to overcome constraints within the value chain.
[19] SNV Netherlands Development Organization.
[20] The PCR did not elaborate much on this grant which continues with PAFA-E.

a. The availability of inputs, the equipment to cultivate lands, the community infrastructures (facility storages, infrastructures management committees) and the technical support provided to the producers by the family farm advisors;

b. The large number of contracts between MOs and POs which allowed the latter to sell surplus produce on the markets, increasing quantities of cereal on local markets;

c. The reinforcement of POs capacity and autonomy. POs played a major role in the implementation of activities and received a range of trainings to enhance their organizational capacities. There has been an evolution from 28 per cent of medium and strong dynamic POs in 2012 to 97 per cent in 2015.[21] Being a member of an association or PO which provided inputs and storage, allowed farmers to secure their harvest and to open up new production areas, which may also have contributed to the development of profitable activities and an increase in producers' benefits.

22. With regard to the targeting performance, according to the PCR, 45 per cent of the direct beneficiaries were extremely vulnerable and 52 per cent were highly vulnerable.[22]

23. In sum, PAFA achieved and exceeded its objectives with significant results in various fields. Such positive results do not seem to be commensurate with the actual project financing which was notably lower than the budget (64 per cent) and the PCR does not offer an explanation. It may be due to low initial targets or cost overestimation. It has contributed to the development of profitable activities through the SPMA and the establishment of links between POs and MOs. The reinforcement of PO capacity and autonomy together with the community infrastructures contributed to the achievement of the PAFA objectives. It has also contributed to the development and structuring of value chain through the SPVD and their representation at local and national level through the various marketing boards. The PCRV rating for effectiveness is *satisfactory (5)*. This is the same rating as the PCR rating.

Efficiency

24. The project became effective in February 2010, with a 17 months lag between approval and effectiveness, which is more than the average in the region (12.9 months). No further explanation was given by the PCR in this regard. The first disbursement was in November 2010. While the disbursement rate of the original IFAD loan was 97 per cent, the supplementary loan was under-disbursed (less than 20 per cent). When the original and supplementary loans are combined, the disbursement rate would be 92 per cent. Delays in the mobilization of OFID funds and of the 10 per cent contribution expected from local authorities delayed the effective start and implementation of component B (*Development and structuring of value chains at the regional level*). OFID disbursed merely 26.4 per cent of the agreed amount and, consequently, also the Government disbursed only 20 per cent of its counterpart funds, as these were linked to OFID's contributions. The OFID loan was extended to 31 December 2017 and would, in the end, achieve the disbursement rate of 60.68 per cent, as noted in the final project supervision report (April 2016). There were also delays in mobilizing GEF funds for component D (*Adaptation to climate change*), resulting in a low disbursement rate of 45 per cent. The initial targets at design were likely underestimated while some costs might have been overestimated, considering the high percentage of most of the delivered outputs, despite the low disbursement of components B and C.

[21] A study on POs was carried in 2015 and its results were included in the PCR (DT 3 – Appui aux organisations paysannes).
[22] The project categorized the target groups according to their level of vulnerability based on key poverty factors within the local context.

25. Based on the estimated number of beneficiaries at design and the actual number, the estimated cost per beneficiary household at appraisal was US$900 and the final cost was US$526.4 (for 37,734 households).[23] This decrease is due to an increase in the estimated number of beneficiaries (118 per cent of the initial target) and incomplete disbursement of project financing (63 per cent of the total planned amount) and to a possible overestimation of some costs. Component C, which amounted to 24 per cent of the project cost at appraisal and 30 per cent at completion, largely covered the management cost estimated at 19 per cent and was disbursed at 92 per cent at completion. The Internal Rate of Return estimated in the PCR is 31 per cent, which is substantially higher than the 18 per cent estimated at appraisal.

26. Overall, project efficiency was affected by the late mobilisation of OFID and GEF funds resulting in delays in the implementation of related components. The reported economic rate of return was higher than the estimated one and cost per beneficiary lower. *The PCRV rating for efficiency is moderately satisfactory (4).* This is the same as the PCR rating.

Rural poverty impact

27. The assessment of rural poverty impact in the following paragraphs builds on data from the Results and Impact Management System (RIMS) and the results of a final impact study carried out in 2016[24] and summarized in the PCR. Data from the baseline survey carried out in 2011 were included in the PCR as well. A final financial analysis carried out by the project estimated the impact of the project on different farm models by assessing the situation of beneficiaries in terms of revenue and cash flow "with and without" the project.

28. **Household incomes and assets.** The PCR indicates an increase in beneficiaries' incomes compared to the baseline survey which varied between 41 per cent and 133 per cent, depending on the value chain. Household asset ownership has improved, although it is not clear whether it is linked to the project. The PCR noted that this improvement was evidenced by the purchase of agricultural equipment, inputs, means of transport and by the construction of housing. The PCR doesn't mention the total number of beneficiaries that saw an increase in their assets but indicates that following the project, 71 per cent of the beneficiaries had access to sanitary facilities compared to 14 per cent at baseline; 29 per cent had access to electricity compared to 24 per cent at baseline; 95 per cent owned phones compared to 78 per cent at baseline. But it is not clear to what extent these changes were related to the project. The increase in incomes was also significant thanks to the value chain approach, particularly the rapid increase in the number of contracts between POs and PAFA MOs for selling the production surplus.

29. **Food security and agricultural productivity.** The project contributed to the increase in household agricultural yields and production, allowing an important increase in consumption and sales. At mid-term, record yields for millet, maize and sorghum were already noted. This was highlighted as well in the 2014 Country Strategy and Programme Evaluation. The increase in cultivated lands (175 per cent) also contributed to the increase in production, 152,241 tons all crops combined (an increase of more than 100 per cent) exceeding the targets. Horticulture schemes also helped improve agricultural production and productivity and increased self-consumption. At completion, only 4 per cent of households experienced a food scarcity period compared to 70 per cent at baseline, according to the RIMS. Chronic child malnutrition was registered at 22 per cent compared to 38 per cent at baseline. Although positive, this rate remains below the one targeted at appraisal (12 per cent). The improvement of agriculture productivity in general can be attributed to the adoption of good agricultural practices provided by

[23] The cost at completion is calculated without the salaries, allowances and operational costs as indicated in the PCR.
[24] The report of the impact study was not available to the PCR validator.

the project and the quality of inputs (certified seeds, fertilizers, pesticides and phosphate.

30. **Human and social capital.** Households targeted by PAFA were members of POs whose capacity enhancement was a major element in the project. It can be said that the project has boosted their governance capacities in managing, negotiating and establishing market chains through trainings and other means. It is illustrated by the significant evolution of the POs (from 28 per cent of medium and strong dynamic POs in 2012 to 97 per cent of POs in 2015), the increase in contract numbers between POs and MOs, and the number of SPVDs successfully established (327 per cent of target).

31. **Institutions and policies.** PAFA worked with Government entities, which participated in different training sessions and in this way contributed to reinforcing their capacities. The project used POs as the main entry point for its interventions. Studies on farmer's organizations carried out in 2015 showed a significant evolution of these organizations as mentioned in the paragraph above (Human and social capital). Evidence of additional cultivated land (5,096 ha) outside the project support illustrated the capacity of POs to facilitate the access of their members to inputs services. The project also formed several other community groups through various technical training and awareness sessions which resulted in functional infrastructure management committees (125 per cent) and functional marketing boards (67 per cent).

32. With regard to policies, the project has contributed to the formal/legal recognition of NIVCOs at the national level. This might have contributed to a wider recognition of POs' role in rural development at the national level as well. Other Government initiatives reported in the PCR indicate the potential of PAFA in terms of impact on policies, such as the process of structuring the maize value chain nationwide based on the PAFA experience.

33. Overall, the project did have an impact on rural poverty with a significant increase in agricultural productivity and incomes and improvement in food security. These results were due to capacity enhancement of beneficiaries, in particular POs and the guaranteed market access for producers through contracts between POs and MOs. The PCRV rating for rural poverty impact is *satisfactory (5).* This is the same as the PCR rating.

Sustainability of benefits

34. PAFA appears to be socially sustainable, as it responded to the beneficiaries' needs and priorities and empowered them since its inception. All activities and practices were well accepted considering the high increase in beneficiaries' numbers adhering to the project. The PCR indicates that non-beneficiaries, in particular young people inspired by the project's achievements, started their own agricultural activities.[25] This may have slowed down out-migration of young people from rural areas, as noted by the reviewed documents.[26] The technical package proposed by PAFA has a high potential of sustainability, considering that the increase in agricultural productivity covers not only the cost of inputs but results in income increases that cover both family needs and other investments in farming.

35. Despite these positive factors, there were some substantial risks to sustainability beyond the project lifetime. Access to financial services represents the most important challenge for sustainability. The decreasing subsidy mechanism[27] (80 per cent-60 per cent-40 per cent) over a three-year period could indeed foster a

[25] PCR, p.25, 42.
[26] Supervision report, p. 9, 2016.
[27] A subsiding co-financing mechanism offered by PAFA and other beneficiaries to the SPMAs. The financial contribution of the PAFA vs beneficiaries amounted to 80 per cent vs 20 per cent, respectively, during the first year, 60 per cent vs 40 per cent, respectively, during the second year and 40 per cent vs 60 per cent, respectively, during the third year.

capitalization process for producers. However, it could be restrictive in the long run since the source of funding is unclear (credit bank, saving of inputs or non-agricultural income) and therefore could be unsustainable. As mentioned under relevance, the project fell short partnering with the banking system to support the value chain. It relied on a short-term financial system (SAFIR) and on an internal financial model in which MOs had limited financial capacities to finance agricultural inputs. With regard to institutional sustainability, the recognition of the NIVCOs at the national level is a promising sign. Family farm advisors are providing proximity services to POs and their members. But the sustainability of both is at risk, as they would require additional financial support and further capacity development.

36. Overall, there is a strong social and technical sustainability of PAFA's benefits. Financial and institutional sustainability face substantial risks beyond the project lifetime. For this reason, the PCRV rating for sustainability is *moderately satisfactory (4),* one rating below the PCR rating.

B. Other performance criteria

Innovation

37. PAFA introduced various methodological and technological agricultural innovations that helped increase production and supported the shift from subsistence agriculture to market production. Two important methodological innovations were: (i) the promotion of agricultural value chains with high socio-economic potential; and (ii) the inclusive approach based on strengthening and empowering producers and putting them at the centre of the intervention through POs, marketing boards, and NIVCOs. PAFA also innovated through the use of information and knowledge in terms of markets services, through its various mechanisms of planning and coordination (marketing boards, NIVCOs). It innovated with the farm advisory system (Farm family advisors) allowing POs to insource farm advisory services provided to their members. The marketing contract between POs and MOs is another key innovation attributed to IFAD, as noted in the PCR and Country Strategy and Programme Evaluation report (2014). PAFA introduced also innovative financial mechanism, such as the decreasing subsidy mechanism and the financial internal model. Their sustainability beyond the project life is uncertain (see section on *Sustainability).*

38. Other innovative activities noted in the supervision reports and PCR include: the drafting of a booklet for recipes prepared with local products, the use of local radios for the training of producers on good agricultural practices, and the use of solar pumps in irrigated perimeters.

39. The PCRV rating for innovation is *satisfactory (5),* similar to the PCR rating.

Scaling up

40. Scaling up was carried out by the *Casamance Development Pole Project for Senegal* financed by the World Bank and the Government of Senegal. The project adopted the decreasing subsidy mechanism promoted by the PAFA. Horizontal scaling up was achieved during the implementation period of PAFA by: (i) POs and household's beneficiaries who financed inputs by their own financial resources to cultivate additional hectares outside the project support; (ii) non-beneficiaries who replicated technical methods and the poultry rearing promoted by PAFA.

41. Although it does not comply with IFAD definition,[28] scaling up is ongoing by other IFAD projects in Senegal (PAPADER, PAFA-E), mainly in terms of inclusive targeting and the development of value chains. The PAFA documents indicate potential scaling up of innovations and good practices by other projects under the Ministry of Agriculture and Rural Equipment, as a government initiative. However, there is no evidence of concrete upscaling.

[28] IFAD's operational framework for scaling up results, December 2015.

42. The PCRV rating for scaling up is *satisfactory (5), the same rating as in* the PCR.

Gender equality and women's empowerment

43. The PAFA appraisal document paid considerable attention to gender. The project was successful in including women and youth in project activities. The participatory approach for selecting the value chains allowed for the active participation of women from the outset of the project. The commodities and SPVDs identified were traditionally either women's crops or livestock on which women have some control (bissap, sesame, horticulture and farm poultry). The project ensured that women's voices were heard thanks to their representation in the planning and coordination platforms, where they had leadership positions (see below). This would have contributed to their social and economic empowerment. In terms of workload, it is likely that access to equipment for cereals processing and herbicides have reduced their working hours.[29] An important factor to be mentioned is the hiring of a gender specialist within the Project Management Unit. The supervision reports and PCR highlighted the importance of her role in terms of awareness and respect of targeting criteria in the SPMAs.

44. Project reports show the high participation of women in various activities. The number of women supported by the project is 207 per cent of the initial target. Women represented 62 per cent of the SPMAs, 38 per cent of the family farm advisory council, 59 per cent of the SPVD, 71 per cent of the market garden producers and 56 per cent of the executive positions in the NIVCOs.[30] These percentages were found in the PCR under RIMS data (Appendix 9). Yet RIMS documents have limited disaggregated information by gender and age. This was also highlighted by the mid-term review report, which recommended that information and indicators on project beneficiaries should be systematically presented by gender and age.[31]

45. Young women and men represent 35 per cent of the beneficiaries with 62 per cent of them being women. PAFA used local sport and cultural associations as entry points to reach out to young people, supporting 45 associations. The project contributed to their income increase; however, it is not clear whether young people have increased their control on assets. The PCR did not provide quantitative data on their income and assets. It seems that PAFA reduced rural exodus/immigration to some extent as several young people were said to have returned to Senegal because of the higher economic opportunities in the project area compared to elsewhere.

46. In sum, PAFA was designed with great attention to women and youth. It has contributed to women's empowerment through its different activities. In 2014, it was rated as very satisfactory and transformative by the *Gender desk-PTA*.[32] The PCRV rating for Gender equality and women's empowerment is *highly satisfactory (6).* This is the same rating as the PCR.

Environment and natural resources management

47. The proposed project activities underwent environmental screening at the design stage. The project has been classified as Category B as it is not likely to have any significant negative environmental impact. Yet, the PAFA Environmental Impact Note lists potential impacts of lowland development and infrastructure. Mitigation measures were identified and implemented.

48. The GEF component introduced activities related to natural resource management. These were largely related to awareness and simple preventative measures such as solid waste incineration, promotion of appropriate technical methods for improving

[29] PAFA MTR, Appendix 7.
[30] PAFA PCR p. xi.
[31] PAFA MTR, p. 33, 2015.
[32] PAFA PCR, p. 24.

agricultural production taking into account soil properties and water constraints (for instance, the use of organic fertilizers, the rational use of pesticides and the promotion of biological control methods, the maintenance of community irrigation infrastructure and water dams, soil salinity prevention measures, biogas systems for domestic use etc.). Partnerships were established with universities to follow up on the GEF investments and their impact.

49. The PCRV rating for environment and natural resource management is *satisfactory (5)*. This is the same as the PCR rating.

Adaptation to climate change

50. Climate change is a risk to the achievement of the project's desired impact of increased incomes and food security for smallholder farmers. Farmers are highly vulnerable to climatic change, confronted by weak and irregular rainfall and soil degradation. It was recognized at the design stage that the effect of global warming is one of the critical risks to productivity.

51. In order to minimize this risk, the project selected drought-resistant crop varieties and incorporated appropriate adaptation measures such as irrigation infrastructure coupled with efficient water use. The GEF-funded "climate change adaptation" component focused on capacity building and knowledge management at local and national level. There was a lag of almost two years between the implementation of the PAFA and the start of the said component which has affected its outputs and reduced its impact. The PCR and supervision reports comment that the activities did strengthen the resilience of rural populations and production systems through access to certified seeds, and cultivation techniques allowing better water retention in the soil. Eighty-six per cent of the targeted household adopted resilient strategies promoted by the project. Merely 7 per cent of local authorities integrated the proposed climate change adaptation measures into their local development plans. The PCR does not explain why this was the case.

52. The project made efforts in terms of adaptation to climate change, but the delay in launching the activities might have limited their effect. The PCRV rating for the Adaptation to climate change *is moderately satisfactory* (4). This is the same as the PCR rating.

C. Overall project achievement

53. Overall, PAFA was well aligned with Government and IFAD policies and strategies, and responded well to the needs of its target population. Access to productive resources, inputs and technologies has led to increased agricultural production, which, in turn, has increased incomes and investment capacities of small producers. The participatory approach involving various structures and stakeholders and, most importantly, POs from the design stage onwards contributed to these achievements. Gender equality and women empowerment scored good results. PAFA paid considerable attention to gender and was successful in including women and youth in beneficiary targeting and promoting activities designed for them. Access to finance within the supported value chains has not significantly improved. Adaptation to climate change could also have achieved more significant results was it not for the delays in mobilizing GEF funds and procurement. The PCR rates overall project achievement *satisfactory* (5), same as the PCR.

D. Performance of partners

54. **IFAD.** IFAD undertook regular supervision and implementation support missions, supported by the IFAD country office, which provided regular support and prompt decision-making, as noted by the PCR. The Country Programme Manager participated in all missions. The quality of the supervision reports was generally good. Weaknesses in project design related to financial instruments were highlighted, partly as a result of the overestimation of local financing capacities. It

would have been useful if at appraisal or during the implementation process, a financial expert had joined the Project Management Unit to support the SPVD as both the PCR and supervision reports highlighted this issue. The initial targets at design were likely to be underestimated while some costs might have been overestimated, considering the high percentage of most of the delivered outputs, despite the low disbursement of components B and C.

55. The PCRV rates IFAD performance as *satisfactory (5).* This is the same rating as the PCR.

56. **Government.** The Government participated in the supervision missions. It encouraged other projects under the Ministry of Agriculture and Rural Equipment to adopt good practices of PAFA. The PCR highlights the strong leadership of the project coordinator and the competence of the team which played an important role in achieving the project's results. The monitoring and evaluation system faced technical and recruitment problems that were solved after mid-term. Governmental technical partners sometimes lacked adequate human resources which might have caused longer implementation periods for some activities. It was, therefore, suggested that the infrastructures activities would be handed over to services providers. Delays occurred in mobilizing the required 10 per cent contribution by local authorities for infrastructure investments under component B. The mid-term review report and the supervision reports recommended reviewing the contribution of local authorities and POs to component B. The PCR noted that the contribution of POs was reduced to 5 per cent but did not elaborate on the contribution of the local authorities.[33]

57. The PCRV rates the Government performance as *satisfactory (5).* This is the same rating as the PCR.

IV. Assessment of PCR quality

Scope

58. The PAFA PCR covered all sections as per the guidelines for Project Completion Review (2014). Human and social capital is not explicitly discussed though several sections touch on this aspect, more on social and less on human capital. Annexes were included as per the guidelines, except a bibliography list and the stakeholder workshop results. Yet, the PCR noted that four workshops were held with beneficiaries' participation. The PCRV rates the scope of the completion report as *satisfactory (5).*

Quality

59. The PCR process was inclusive and workshops were organized with beneficiaries in order to discuss the performance and impact of the project. No synthesis of these workshops was found, but there are multiple quotes throughout the report. The report is largely supported by data, analysis and working documents, including a very detailed economic and financial analysis. Efforts were made for collecting data in addition to the RIMS, for example through case studies. Aggregated data in terms of youth would have been useful to support the narrative. The PCR mentions repeatedly an impact survey carried out in June-July 2016, although no related records were found by the reviewer. Data and tables related to efficiency show some discrepancies in numbers as the calculations exclude in some cases the supplementary loans, resulting in differences for costs in general. The PCR rating for Quality is rated *satisfactory (5).*

Lessons

60. The PCR identified a number of relevant key lessons that were well elaborated. The PCR's lessons are rated *satisfactory (5).*

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[33] PCR, p. 16 para. 60.

Candour

61. Both positive and negative results are reported in the PCR. Overall, the PCR presents a balanced and objective review of the project. The PCRV and PCR agree on most ratings. The PCRV rating for candour is *satisfactory (5).*

V. Lessons learned

62. Useful lessons drawn from the PCR are as follows:

    a. Sustainable access to rural financial services is a requirement to consolidate the financial mechanism of the value chain, including the decreasing subsidy mechanism.

    b. Development of value chains requires supporting value chain stakeholders both upstream (e.g. suppliers of inputs and extension services) and downstream (e.g. processing). Failing to do so would limit the value chain development.

    c. For NIVCOs to play an important and solid role at national level, they need to partner with other inter-professional organizations at national level. This would also allow POs to expand the market for their products to regional and international markets.

    d. Strategic plans should be supported by an adequate analysis on resource capacities needed to implement them, and by a proper follow up of the planned activities. It is essential to ensure that systems in place are sustainable and capable of mobilizing internal resources and providing services for their members.

Definition and rating of the evaluation criteria used by IOE

Criteria	*Definition* [*]	*Mandatory*	*To be rated*
Rural poverty impact	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
	Four impact domains		
	• 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.		No
	• 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.		No
	• 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.		No
	• 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.		No
Project performance	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
Other performance criteria			
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 others 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

Criteria	*Definition* *	*Mandatory*	*To be rated*
Overall project achievement	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 and scaling up, as well as environment and natural resources management, and adaptation to climate change.	X	Yes
Performance of partners			
• IFAD • Government	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 X	Yes Yes

* These definitions build on the Organization 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[a]

Criteria	*Programme Management Department (PMD) rating*	*IOE Project Completion Report Validation (PCRV) rating*	*Net rating disconnect (PCRV-PMD)*
Rural poverty impact	5	5	0
Project performance			
Relevance	6	5	-1
Effectiveness	5	5	0
Efficiency	4	4	0
Sustainability of benefits	5	4	-1
Project performance[b]			
Other performance criteria			
Gender equality and women's empowerment	6	6	0
Innovation	5	5	0
Scaling up	5	5	0
Environment and natural resources management	5	5	0
Adaptation to climate change	4	4	0
Overall project achievement[c]	**5**	**5**	**0**
Performance of partners[d]			
IFAD	5	5	0
Government	5	5	0
Average net disconnect	-	-	**-2/12= -0.17**

[a] 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.
[b] Arithmetic average of ratings for relevance, effectiveness, efficiency and sustainability of benefits.
[c] 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 and scaling up, environment and natural resources management, and adaptation to climate change.
[d] The rating for partners' performance is not a component of the overall project achievement rating.

Ratings of the project completion report quality

	PMD rating	*IOE PCRV rating*	*Net disconnect*
Candour		5	
Lessons		5	
Quality (methods, data, participatory process)		5	
Scope		5	
Overall rating of the project completion report			

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.

Delivery of outputs

Component	*Indicator*	*Unit*	*Initial target*	*Actual*	*%*
A. Diversification and access to market					
A.1 Support to production and partnerships with MOs	SPMAs financed	Nb	150	333	222%
	Number of PO involved in value chain	Nb	300	342	114%
	Cultivated land: millet	Ha	4600	14983	326%
	Cultivated land: sesame	Ha	1410	1905	135%
	Cultivated land: bissap	Ha	2900	3196	110%
	Cultivated land: cowpea	Ha	1000	1433	143%
	Cultivated land: maize	Ha	Nd	2621	-
	Person trained on technical method for agricultural production	Nb	6000	22835	381%
A.2 Irrigation infrastructures	Irrigated perimeters		100	74	74%
	Procurement of solar irrigation equipment		nd	9	-
B. Development and structuring of value chains					
B.1 Development and structuring of value chain	SPVDs financed and functional	nb	30	98	327%
	% of functional infrastructures management committees	%	80	100	125%
	Marketing board established and functional	Nb	6	4	67%
B.2 Community infrastructure	Development center of value chain	Nb	75	96	128%
	Road infrastructure	Km	132	103	78%
C. National dialogue, knowledge management and project coordination					
	Monitoring and evaluation manual	nb	1	1	100%
	Administrative procedures manual	Nb	1	1	100%
	Audit mission	Nb	6	6	100%
	Supervision mission	Nb	11	11	100%
	Meetings of CP	Nb	6	6	100%

	RIMS surveys	Nb	2	2	100%
	Self-evaluation workshop	Nb	nd	704	-
D. Adaptation to climate change					
D.1 Strengthening of capacities, awareness and knowledge management	Workshops	%	80	85	106%
	% of targeted household that adopted resilient strategies	%	70	60	86%
	% or local authorities that integrated adaptation measures to CC in their development plans	%	90	6	7%
	Inventory of best practices in terms of adaptation to CC	Nb		1	100%
	Creation of platforms for climate and prices information	Nb		1	100%
D.2 Water collection and watershed management	Soil fertility through improved agricultural technique	ha	Nd	6650	-
	Rehabilitation of valleys	Nb	9	6	67%
	Water dams (ant-sel)	Nb	2	2	100%
	Procurement of phosphate	Tonnes	2000	2680	134%
	Rice production for 1000 ha	Ha	1000	1457	146%
	% of good water usage through improved irrigation system	%	95	90	95%
	% of target household with secure access to production	%	30	35	117%
E. Support to rural finance					
	Amount the loans granted	Millions of FCFA	1300	879	68%
	% of disbursement of loans	%	95	100	105%

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Acronyms

GEF	Global environment facility
MO	Market operator
MTR	Mid-term Review
NIVCO	National inter-professional organizations for value chains
OFID	OPEC Fund for international development
PAFA	Agricultural Value Chains Support Project
PCR	Project completion report OAD
PO	Producers' organizations
PROMER	Promotion of Rural Entrepreneurship Project
RIMS	Results and Impact Management System
SAFIR	Service d'appui à la finance rural
SPMA	Subproject for market access
SPVD	Sub-project for value chain development