



Investir dans les populations rurales

Chairman's report

Proposal for additional funding for the Burkina Faso

**Project to support agricultural sectors in the South-
West, Hauts Bassins, Cascades and Boucle du
Mouhoun regions (PAFA-4R)** Project number: 2000001925

**Sustainable Strengthening of Resilience to Food and Nutrition Insecurity
Project (P2RIA/GAFSP)**

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More information on PAFA4R are available at Following: [\[hyperlien\]](#) .

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Funding Summary

Initiating institution:	IFAD-GAFSP
Borrower/beneficiary:	Burkina Faso
Implementing body:	Ministry of Agriculture, Animal Resources and Fisheries
Total project cost:	EUR 128.7million
Amount of initial IFAD funding:	EUR 51.4 million equivalent to approximately USD 55.47 million)
Conditions for IFAD's initial funding:	100% in the form of a particularly concessional loan for Burkina Faso
Amount of additional GAFSP funding:	EUR 13.9 million equivalent to approximately USD 15.00 million
Conditions of additional funding:	100% GBFT donation
Co-funder(s):	GAFSP
Co-financing amount:	EUR 13.9 million equivalent to approximately USD 15.00 million
Conditions for co-financing:	100% GBFT donation
Borrower/recipient contribution:	EUR 12.00 million equivalent to approximately USD 12.95 million
Additional contribution from borrower/recipient:	EUR 1.70 million equivalent to approximately USD 1.83 million
Recipient Contribution:	EUR 7.80 million equivalent to approximately USD 8.42 million
Additional contribution from recipients:	EUR 1.05 million equivalent to approximately USD 1.13 million
Amount of IFAD initial funding (climate action):	EUR 28.39 million equivalent to approximately USD 30.64 million
Amount of additional IFAD (climate action) funding:	"[Cliquer ici pour insérer le montant en chiffres]" million USD
Cooperating institution:	IFAD for PAFA-4R and AfDB for PAVAL co-financing

I. Background and description of the project

A. Context

1. Burkina Faso is classified as a fragile country due to the effects of climate change and the ongoing security crisis since 2015. This results in a worrying food insecurity situation exceeding the 20% threshold in some provinces. ¹²In the last quarter of 2022, more than 2.5 million people were in crisis or emergency situations (phases 3-4).³⁴
2. Insecurity has led to massive population displacement, the abandonment of agricultural production areas, the loss of livestock and a dysfunction of social infrastructure (markets, health centres, schools, water points). As of 31 December 2022, Burkina Faso registered nearly 2 million internally displaced persons (IDPs), of whom 23.93% were women and 58.44% ⁵children. ⁶
3. Climate shocks and attacks by granivorous birds in the Sahel have⁷led to lower yields for the 2021-2022 crop year. Compared to the previous season, production fell by 10% for cereals⁸, 28.36% for other food crops and 19.54% for cash crops. In addition, 52% of farm households could not cover their cereal needs with their production. The war in Ukraine and fluctuating oil prices have exacerbated the rise in input and food prices⁹, affecting the purchasing power of households and the ability to replenish national stocks.
4. Food and nutrition insecurity has increased in areas hosting internally displaced persons (IDPs), due to increased pressure on resources from populations (hosts and IDPs). In addition, precarious access to health services, hygiene and drinking water weakens the nutritional status of vulnerable people, especially children under 5 years of age and pregnant and lactating women.

B. Description of the initial project

5. The funding granted by GAFSP will strengthen the initial Agricultural Sector Support Project (PAFA-4R), which contributes to the achievement of the objectives of the 2018-2027 Agro-sylvo-Pastoral Production Sector Policy (PSPASP), the National Sustainable Livestock Development Policy (PNDEL), the National Food and Nutrition Security Policy (PNSAN). It will also make it possible to take into account the priorities of the Establishment and Development Plan (PA-SD 2023-2025) and COSOP in PAFA-4R.
6. The development objective of PAFA-4R is to sustainably improve food security and farm incomes in the Cascades, Hauts-Bassins, Boucle du Mouhoun and Sud-Ouest regions.
7. Approved with an implementation period of 6 years (2020-2025), PAFA-4R was designed to intervene in areas vulnerable to poverty and food and nutrition insecurity to support the sustainable improvement of productivity, production and market access for rice, market, sesame, cowpea, fish farming and non-timber forest products (NTFPs). The target group is smallholder farmers and agro-entrepreneurs, including related trades.
8. PAFA-4R targets 70,000 direct beneficiaries, 50% of whom are women and 30% young people. Particular attention is paid to the integration of people with disabilities.
9. PAFA-4R contributes to the creation of decent jobs, particularly for youth and women, to strengthening the resilience of agricultural systems to climate change and to improving

¹ FY23 FCS List

² RFEWSNET contribution 2021 : 21.1% of the country's population lived in provinces classified as IPC3+ exceeding the 20% threshold set by Rule 1.

³ Harmonized framework <https://www.food-security.net/datas/burkina-faso/>

⁴ 10.2% in crisis and 1.5% in emergency.

⁵ Le CONASUR had counted 1,882,391 IDPs at that date

⁶ National Council for Emergency Relief and Rehabilitation (CONASUR).

⁷ Pockets of sécheresses (North, Centre-North, Boucle du Mouhoun and Sahel) and floods (Boucle du Mouhoun and East)

⁸ Cereal production has experienced a gap of 297812 tons to cover the needs of the population (Food Security Forecasting Committee, 2022)

⁹ According to the results of the Cadre harmonisé (2022), the prices of the main cereals increased by 33% for millet, 42% for sorghum and 39% for maize. These price spikes are fuelled by production declines in previous seasons, the security and health crisis, and soaring world prices for agricultural inputs and products.

the nutritional situation of vulnerable populations. Implementation is based on know-how with an approach focused on the empowerment of actors. The activities/investments are organized into two components.

- Component A: "Improvement of productivity and agricultural production associated with education on good nutritional practices" including a sub-component (A1) aimed at improving yields by facilitating access to inputs (seeds, seedlings, fertilizers, broodstock or fry, feed), equipment, quality advice, reasoned technical itineraries and innovations (organic inputs); and a sub-component (A2) aimed at the development of land and water resources in rice lowlands, maraï expensive perimeters and small dams. The implementation is based on market access sub-projects (SPAM) carried out by the Farmers' Basic Organizations (BPOs), benefiting from support in inputs, equipment and supervision.
- Component B: "Support for improving the valuation and marketing of agricultural products" focused on structuring value chains, increasing the added value of agricultural products and NWFPs (moringa, baobab, honey, shea), and supporting rural microenterprises (MERs). A first sub-component B.1 concerns the strengthening of sectors (interactions between actors, structuring of POs, PPP partnerships). A second sub-component B.2 focuses on the professionalization of rural enterprises, the provision of services by Rural Entrepreneurship Resource Centers (REERCs) and the financing of micro-projects in rural enterprises.

II. Rationale for additional funding

A. Rationale

10. The GAFSP-approved initiative, called the Sustainable Resilience to Food and Nutrition Insecurity (P2RIA) Project, is a Financing (AF) to PAFA-4R. It takes into account the current context marked by worrying inflation in the costs of inputs and materials exacerbated by the security crisis and an increase in the needs of the most vulnerable populations.

11. This AF will consolidate the impact of PAFA-4R while considering the response to the security crisis defined as a priority of PA-SD, the main reference for ¹⁰cooperation and development programs. The plan calls for a strategic approach to stabilization which combines security, emergency and development actions. It brings together the joint action of the United Nations system through the development and implementation of the United Nations Interim Development Plan (UNIDAP) to support the transition¹¹. The P2RIA increase the number of direct beneficiaries (from 70,000 to 91,700) mainly through the inclusion of IDPs through the provision of agricultural inputs and equipment, the strengthening/valorization of the potential in rice lowlands and market gardening sites, the adoption of agroecology techniques, the promotion of nutrition-sensitive agriculture, and support for REMs that provide employment and empowerment opportunities.

12. The FA will benefit from the experiences gained by PAPFA and PAFA-4R which are making progress in implementation despite the context of fragility and insecurity. While the performance of PAFA-4R remains perfect, the recent mid-term review of this project (June 2023) revealed that the proposed planning and execution strategy anticipates the challenges related to the context of fragility by: (i) relying on local partners; (ii) repositioning investments in secure areas; (iii) intensify implementation through consorts of local partners. The planning strategy of PAPFA and FAFA-4R already integrates P2RIA activities with an update of unit costs due to inflation.

Specific aspects of IFAD's cross-cutting priority themes

13. In accordance with the transversal commitments, the project was validated as:

- including climate finance.

¹⁰ The PA-SD 2023-2025 is considered the central instrument for operationalizing the National Development Policy (PNDES-II)

¹¹ The PA-SD 2023-2025 implements four pillars: (i) Fighting terrorism and restoring territorial integrity; (ii) Responding to the humanitarian crisis; (iii) Rebuilding the State and improving governance; and (iv) Work towards national reconciliation and social cohesion.

- ☒ bringing about gender transformation.
- ☒ taking into account nutritional issues.
- ☒ youth-focused;

14. **Climate change.** The effects of climate change are expected to increase in frequency and severity in the coming years, including large variations in rainfall, water shortages and poor agricultural harvests. As part of the National Adaptation Program, simulations based on climate modelling adopted by the Government predict an increase in average temperatures of 0.8°C by 2025 and an increase of 1.7°C by 2050, as well as a relative decrease in precipitation of -3.4 per cent by 2025 and -7.3 per cent by 2050. The decrease in precipitation will be associated with very high seasonal and interannual variability in climatic factors, further worsening climate impacts on agriculture and livestock and key economic sectors. Water resources and flood management, forestry and food security will also be affected (NAPA, 2007; CDN, 2021). The FA will strengthen the promotion of agroecology and agroforestry practices and technologies as well as water-saving technologies and the use of solar pumps.

15. **Gender.** Women make up 51.7% of the population ¹² and 55% of the agricultural workforce. Equity in women's access to productive resources and the implementation of their rights remains a major constraint. Although laws and laws promote gender equality and equity, socio-cultural constraints remain in the allocation of land to women and young people and access to factors of production, including financing, is a major challenge. P2RIA will support sectors and activities to which women have easy access, including marketing, small ruminant breeding, production of food with high nutritional value, and product processing. Women will constitute 50% of the beneficiaries. Their empowerment will be a lever for change and sustainable transformation of the agricultural sector and food systems through professionalization, income diversification, integration into financial services, as well as access to more nutritious food. The PAFA-4R gender action plan will be strengthened through workshops on the Gender Action Learning System (GALS) and trainings on women's leadership to increase their capacity for participation in decision-making at both household and community levels.

16. **Youth** (15 to 35 years). 77.9% of the population is under 35 years of age. Young people suffer from the same constraints as women: socio-cultural constraints, poor access to land and finance, low technical and entrepreneurial capacity. The FA will strengthen the inclusion of young people in value chains, facilitating access to managed land, agricultural inputs and equipment, financing for micro-projects, as well as training and information on opportunities for inclusion in value chains.

17. **Nutrition.** Food insecurity remains alarming due to the context of fragility. Results from the 2021 Demographic and Health Survey (DHS) reveal that 23% of children under five are¹³ stunted or chronically malnourished, 11% suffer from wasting or acute malnutrition. Inadequate diet in quantity and quality, insufficient and poorly nutritious food rations are among the causes. The FA will reinforce the actions of PAFA-4R aimed at increasing the availability and nutritional value of food, as well as diversifying the diet with a focus on expensive products and nutrient-rich NWFP.

B. Description of the geographical area and target groups

18. The P2RIA will intervene in the regions of the PAFA-4R, particularly in the communes hosting internally displaced persons. In particular, it will target 23 municipalities not covered by the PAFA-4R with productive potential, including 15 in the South-West, 2 in the Hauts-Bassins, 2 in the Cascades and 4 in the Boucle du Mouhoun. These municipalities will be concerned in particular by the construction and/or extension of lowland and commercial perimeter developments. The selection of sites will be based on 1) the

¹² <https://burkinafaso.opendataforafrica.org/lmuycw/tableaux-r%C3%A9capitulatifs-de-la-r%C3%A9partition-spatiale-de-la-population>

¹³ INSD and ICF. 2022 Demographic and Health Survey of Burkina Faso 2021. Ouagadougou, Burkina Faso and Rockville, Maryland, USA: INSD and ICF. <https://dhsprogram.com/pubs/pdf/PR139/PR139.pdf>

presence of easily mobilizable water resources and 2) for lowlands, on the existence of studies carried out by PAFA-4R and/or contiguity to land already receiving support.

19. P2RIA will directly benefit 21,700 people, enabling PAFA-4R to increase the total number of people affected from 70,000 to 91,700 and households from 40,000 to 52,400. Women will represent 50% of the beneficiaries and young people (18 to 35 years) 40%. Attention will be paid to the inclusion of persons with disabilities (PSH) and IDPs with a quota of at least 2%¹⁴ and 10% of direct beneficiaries respectively. The targeting of IDPs,¹⁵¹⁶ some of whom are staying with host families and others on dedicated sites, will be done in collaboration with the regional directorates in charge of social action and agriculture. The project will increase its support to host families and ensure that at least 5% of investments are allocated to IPRs. The expertise of FAO and WFP, which have a certain comparative advantage on this issue, will be used.

20. With the exception of fish farming, P2RIA will target the same sectors (rice, cowpea, mara îchage, PFNL) as those promoted by PAFA-4R to which it adds small ruminants. In addition to the impact on food and nutrition security, the local economy and the well-being of the population (residents and displaced persons), these streams, based on lessons learned from PAFA-4R, offer women, youth and IDPs opportunities for employment and integration into the local and national socio-economic fabric and to improve their incomes and living conditions.

21. The targeting strategy will be that of PAFA-4R which provides for direct targeting and activity-based targeting. The target group will be smallholder farmers and their OPBs supported through the SPAM approach, and agro-entrepreneurs.

C. Components, results and activities

22. P2RIA is consistent with PAFA-4R's theory of change and aligns with its development objective as well as its component and subcomponent structure.

23. The project will intervene at the request of the OPBs or the MERs. Implementation will involve state technical services, local communities, POs, civil society and service providers.

24. Component A: Sustainable improvement of agro-pastoral production and productivity of smallholder producers

Effect 1	The productivity of agricultural systems in targeted value chains is improved.
Output 1.1	Techniques and knowledge that sustainably improve agricultural productivity and nutritional status are mastered by stakeholders.
Output 1.2	Sustainable infrastructure improves productivity in targeted value chains

25. The EAF will increase the number of producers with better access to inputs and technology and the number of people receiving support to improve their nutrition. The acquisition of inputs and equipment follows the PAFA-4R approach based on SPAM carried by OPBs.

26. **Sub-component A1: Access to farm inputs, equipment and advice.** The initiative for the improvement of crop and livestock yields includes:

- a) The provision of improved seeds and agricultural inputs for 3800 people who are members of 108 BPOs. Seeds adapted to climate change and other quality inputs will make it possible to develop 500 hectares of rice lowlands and 100 hectares of market

¹⁴ E1.03% of the population of the 4 intervention regions live with a disability (SNational statistics 2019).

¹⁵ As of 31 January 2023, the number of IDPs in the 4 regions was estimated at 20% of the population.

¹⁶ For the inclusion of people living with disabilities, PAFA-4R has a functional partnership with the NGO Light for the world through the SPARK Project.

gardening perimeters over 2 seasons and 400 hectares in cowpeas over 3 seasons.
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- b) Support for agricultural equipment for the 108 OPBs benefiting from inputs. The acquisition of equipment (20 tillers and 400 manual seeders) will be accompanied by the training of producers and supervisors for their use and maintenance. ¹⁹
- c) The provision of zootechnical inputs and breeding nuclei for the benefit of 2,000 people (50% women, 40% young), members of 100 POs. In total, the action concerns the distribution of 2000 breeding nuclei (1 000 goats and 1 000 sheep) and animal feed, and animal health monitoring. ²⁰²¹
- d) The dissemination of good agropastoral practices and resilient technical itineraries through (i) the establishment of 60 Farmer Field Schools (CEP) in which about 1800 people will participate, and (ii) targeted training for about 960 producers on efficient and resilient agricultural technical itineraries including SRI, good small ruminant breeding practices, and harvesting practices, post-harvest and preservation of products, including products with high nutritional value. ²²²³²⁴
- e) The promotion of agroecology through support in terms of equipment and training on agroecological practices²⁵. The training will concern producers and supervisors.
- f) The promotion of crops with high nutritional value to improve and diversify household nutrition through 40 nutritious gardens (baobab, moringa, vegetables, PDCO, etc.) involving 2000 producers (women in particular), and 100 school gardens. Support will include the provision of equipment, materials and inputs and training. ²⁶²⁷²⁸
- g) Promoting nutrition education, gender and women's leadership through food safety awareness campaigns, facilitation of 80 Infant and Young Child Feeding Practices Learning and Monitoring Groups (GASPA), and training on fortification, preparation and use of nutritious foods. Women's participation in decision-making will be strengthened through trainings on GALS and women's leadership. At least 3000 people will participate in these activities. ²⁹³⁰

27. Sub-component A2: Agricultural infrastructure. The FA will support the development/rehabilitation of small rice lowlands and market gardening areas in 23 communes for a total of 600 hectares for the benefit of 3,000 producers, 50% of whom are women and 40% young people. These will involve small-scale investments: about 20 ha for the development of rice lowlands and less than 4 ha for the maray perimeters which will be exploited by adopting agroecology techniques and ASN practices. A total of 500 hectares of rice lowlands whose studies are available will be developed and 100 hectares of market gardening perimeter.

28. COMPONENT B: Support for the development and marketing of agro-pastoral products

Effect 2	The valorization and marketing of agricultural products in the targeted sectors are improved.
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¹⁷ 50 for rice, 33 for cowpea and 25 for market gardening-

¹⁸ Seeds: 65 tons rice, 21 tons cowpea, 30 kg tomato, 300 kg onion. Fertilizers and biopesticides: 270 tons NPK, 174 tons Urea, 690 tons Phosphate (BP), 1500 liters biofertilizers, 1000 tons organic manures, 1500 liters biopesticides

¹⁹ The acquisition will be through the Société nationale de l'aménagement des terres et de l'équipement rural (SONATER). Materials and equipment become the propriusummer the PO who manages and maintains it.

²⁰ Single Convention SPAM for one year.

²¹ Each beneficiary will receive 1 evil and 3 Females, 600 kg of agri-food by-products and animal health monitoring.

²² 15 sessions of 30 producers/session.

²³ 7 sessions of 30 producers/session.

²⁴ 10 sessions of 30 producers/session.

²⁵ 100 solar motor pumps and 1500 PVC tubes

²⁶ 1 ha/garden

²⁷ Gold-fleshed sweet potatoAnge (PDCO)

²⁸ Area average 0.5 hectares

²⁹ 2 sessions for 300 people

³⁰ 2 sessions for 50 women leaders.

Output 2.1	Consultation and collaboration between actors in the sectors are improved
Output 2.2	REMs have access to business development services tailored to their needs

29. The FA will increase the number of REMs that benefit from technical and financial support for the placing on the market of processed products, thus improving the incomes of producers/processors and indirectly the nutritional situation of consumers.

30. **Sub-component B1: Strengthening of sector organizations.** The actors benefiting from the actions of the FA will be included/associated with the initiatives set up by PAFA-4R in terms of structuring the target sectors, in particular the organization of consultation frameworks, the promotion of contracting between OPB and market operators, support for structuring investments in the sectors and support for the engagement of civil society.

31. **Sub-component B2: Professionalization of rural microenterprises.** The FA will strengthen support for collective REMs and will focus in particular:

- a. Support for the conservation and processing of products with high nutritional value. Technical and financial support to 390 collective MERs involving about 3,900 people, 50% of whom are women and 40% young people, will concern the development of business plans, the ³¹financing of microprojects and ongoing coaching³². Support for demand will give priority to rural enterprises producing food that contributes to the fight against malnutrition (50%). Examples ³³of eligible micro-projects include small storage stores, canneries, agropastoral processing units and NTFPs³⁴.
- b. The strengthening of the operational capacities of agro-food microenterprises will be administered through training in processing and packaging techniques for agropastoral products and NWFPs, and on business management. ³⁵
- c. The promotion of access to the market to strengthen the visibility and competitiveness of agropastoral products and NWFPs transformed by organizing promotional days and training sessions on quality standards and e-commerce of products.

32. **Component C: Project coordination and management.** P2RIA will build on the operational arrangements of PAFA-4R detailed in its implementation manual. This component will document the results and analyze the performance and impact of the project with regard to the development objective. It concerns coordination and management, which will be strengthened in equipment, monitoring and evaluation, knowledge management and communication.

D. Cost, benefits and financing

33. **Project cost.** IFAD's total climate finance allocation to PAFA-4R is estimated at US\$30.64 million.³⁶³⁷

34. The total cost of the project, including FA, is EUR 128.7 million (USD 138.88 million). Over a period of 6 years, it breaks down as follows: (i) IFAD loans and grants: EUR 60.5 million (USD 65.29 million); (ii) AfDB funds amounting to EUR 31.8 million (USD 34.32 million); (iii) counterpart funds from the government and beneficiaries, including

³¹ 390 SEA collectives due to an average of 10 persons per SEA.

³² The 4R PAFA targeting strategy provides for two pressure selection and approval of microprojects : one provinciale and one regionale.

³³ At least 12% will be for animal products.

³⁴ PAFA-4R already has studies for several of these units and infrastructures.

³⁵ At least 420 people participateHave 14 training sessions.

³⁶ Component 1, "Sustainable improvement of agro-pastoral production and productivity of small producers" and component 2 "Support for the valorization and marketing of agro-pastoral products" are partially related to climate action.

³⁷ PAFA-4R and Funding additional

additional contributions, amount to EUR 22.55 million (EUR 24.33 million); (iv) additional GAFSP P2RIA funds in the amount of €13.9 million (USD 15 million).

Table 1. Summary of Initial and Additional Funding
(EUR million)

	<i>Seed funding*</i>	<i>Additional funding</i>	<i>Total</i>
IFAD loan	51.4		51.4
IFAD Grant	0.9		0.9
IFAD PR	8.2		8.2
AfricanDevelopment Bank	31.8		31.8
Beneficiaries	7.8	1.05	8.85
Government	12	1.7	13.7
GAFSP		13.9	13.9
Total	112.0	16.7	128.7

* See tables in the "cost, benefits and financing" section of EB 2019/127/R.31/Rev.1 for a detailed breakdown.

Table 2. Additional funding: project cost by component (and sub-component) and by source of funding
(Thousands of euros)

Burkina Faso

Financement Additionnel: Projet d'Appui aux Filières Agricoles dans les régions du Sud- Ouest, des Hauts-Bassins, des Cascades et de la Boucle du Mouhoun (PAFA-4R) (EURO '000)

Components by Financiers

	GAFSP		The Government		Beneficiaires		Total	
	Amount	%	Amount	%	Amount	%	Amount	%
1. Amélioration durable de la production et de la productivité agro-pastorale des petits producteurs	10,092.7	82.3	1,743.0	14.2	429.6	3.5	12,265.3	73.4
2. Appui à la valorisation et à la commercialisation des produits agro-pastoraux	2,709.2	81.3	0.0	-	621.3	18.7	3,330.4	19.9
3. Coordination et gestion	638.3	98.6	8.8	1.4	-	-	647.1	3.9
4. Suivi-évaluation et gestion des savoirs	468.1	100.0	0.0	-	-	-	468.1	2.8
Total PROJECT COSTS	13,908.2	83.2	1,751.8	10.5	1,050.9	6.3	16,710.9	100.0

Table 3. Additional funding: Project cost by expenditure category and source of funding
(thousands of USD)

Burkina Faso

Financement Additionnel: Projet d'Appui aux Filières Agricoles dans les r

(EURO '000)

Expenditure Accounts by Financiers

	GAFSP		The Government		Beneficiaires		Total	
	Amount	%	Amount	%	Amount	%	Amount	%
I. Investment Costs								
A. Travaux	5,393.5	82.0	1,183.9	18.0	-	-	6,577.5	39.4
B. Equipements et matériels								
1. Véhicules	29.6	77.0	8.8	23.0	-	-	38.5	0.2
2. Equipements et matériels	1,467.3	79.8	346.2	18.8	25.9	1.4	1,839.4	11.0
Subtotal	1,496.9	79.7	355.1	18.9	25.9	1.4	1,877.9	11.2
C. Subventions et dons	2,566.5	80.9	23.4	0.7	581.4	18.3	3,171.4	19.0
D. Services de consultants	1,274.8	86.1	158.7	10.7	47.7	3.2	1,481.3	8.9
E. Biens, services et intrants								
1. Formations, ateliers et séminaires	921.3	96.8	30.6	3.2	-	-	951.9	5.7
2. Biens, intrants et autres services	1,585.7	80.0	0.0	-	395.9	20.0	1,981.5	11.9
Subtotal	2,507.0	85.5	30.6	1.0	395.9	13.5	2,933.5	17.6
Total Investment Costs	13,238.7	82.5	1,751.8	10.9	1,050.9	6.6	16,041.4	96.0
II. Recurrent Costs								
A. Salaires et indemnités	480.5	100.0	-	-	-	-	480.5	2.9
B. Coûts de fonctionnement	189.0	100.0	0.0	-	-	-	189.0	1.1
Total Recurrent Costs	669.5	100.0	0.0	-	-	-	669.5	4.0
Total PROJECT COSTS	13,908.2	83.2	1,751.8	10.5	1,050.9	6.3	16,710.9	100.0

35. The investment costs amount to €16 million, broken down as follows: (i) the development of rice land and market gardening for EUR 6.58 million (i.e. 39.4% of the total project cost); (ii) the acquisition of goods and services for beneficiaries, as well as equipment and materials representing respectively 11.2% and 11.9% of the costs of the FA; (iii) recurrent costs cover salaries, allowances and other operating expenses representing 4% of the total cost of the FA.

Table 4. Project Cost by Component and Project Year
(Thousands of USD)

Burkina Faso

Financement Additionnel: Projet d'Appui aux Filières Agricoles dans les régions du Sud- Ouest, des Hauts-Bassins, des Cascades et de la Boucle du Mouhoun (PAFA-4R)

Project Components by Year -- Totals Including Contingencies

	Totals Including Contingencies (EURO '000)				
	2024	2025	2026	2027	Total
1. Amélioration durable de la production et de la productivité agro-pastorale des petits producteurs	4,224.0	6,753.0	1,180.5	107.8	12,265.3
2. Appui à la valorisation et à la commercialisation des produits agro-pastoraux	46.1	1,874.4	1,393.9	16.1	3,330.4
3. Coordination et gestion	188.8	150.5	152.8	155.1	647.1
4. Suivi-évaluation et gestion des savoirs	138.3	117.1	111.1	101.6	468.1
Total PROJECT COSTS	4,597.2	8,895.0	2,838.2	380.5	16,710.9

36. The FA will cover the three components of PAFA-4R as follows: EUR 12.3 million (73.4%) for component A: Sustainable improvement of agro-pastoral production and productivity of small producers; EUR 3.33 million (19.9%) for component B Support for the development and marketing of agro-pastoral products and EUR 1.1 million (6.7%) for component C Management, Monitoring and evaluation, knowledge management.

Strategy and plan for financing and co-financing

37. The FA consists of the following contributions: GAFSP/P2RIA, a grant in the amount of 13.9 million Euro (83.2%), the Government in the form of taxes and duties exempt in the amount of 1.7 million Euro (10.5%) and the beneficiaries with a contribution of 6.3%, the equivalent of 1.05 million Euro. The total cost of the project is 16.71 million Euro. Total funding for PAFA-4R is EUR 112.0 million: EUR 51.4 million or approximately USD 55.47 million from IFAD; EUR 13.7 million equivalent to approximately USD 14.78 million from the Government; and EUR 8.85 million or about USD 9.55 million from beneficiaries.

Disbursement

38. The disbursement mechanisms used for the EAF are the same as those used for the initial funding.

- A designated account, denominated in local currency (CFA franc), will be opened at the Central Bank of West African States. The funds will be transferred from this account to an operating account opened in Bobo-Dioulasso.
- A sub-account will be opened at the Gaoua branch to facilitate the implementation of activities.

39. The PMU will receive the funds in accordance with the disbursement procedures outlined in the amended Letter to the Borrower. A disbursement plan will be prepared and updated monthly on a rolling quarterly planning basis.

Summary of Benefits and Economic Analysis

40. The economic analysis shows that the project is profitable, although not all the benefits of the project have been considered. Based on the assumptions made, the net present value (NPV) is CFAF 55.7 billion, which corresponds to EUR 84.9 million. The economic rate of return is 23.8% About 67% of profits are derived from the activities of component A, in particular the provision of quality inputs and the increase of agricultural facilities for lowland rice cultivation and market gardening and 33% of component B activities related to the financing of new business plan. This result is satisfactory, especially since some of the benefits of the Project could not be taken into account. Benefits not

quantified in the financial and economic analysis include trail benefits, agricultural equipment cooperatives, rice storage infrastructure, storage infrastructure, and nutritional benefits. The sensitivity analysis shows that the results remain robust under various scenarios including an increase in costs (by 10% and 25%), a decrease in profits (by 10% and 25%), a delay in activities of one or two years and a decrease in the adoption rate.

Exit strategy and sustainability.

41. Like PAFA-4R, the exit strategy of P2RIA will be based on (i) the capacity of OPBs and their umbrellas to provide services to their members; (ii) the REERC mechanism to provide sustainable support for the development of REMs; (iii) the promotion of cultural technologies and practices adapted to the agro-climatic context, the market and the financial capacities of the promoters, and (iv) the capacity building of the various beneficiaries in order to guarantee their technical and entrepreneurial autonomy; (v) the implementation of an exit and sustainability plan through infrastructure, in close collaboration with decentralized public services. The programming of activities and implementation arrangements are based on local ownership, institutional accountability and sustainability. Technical steering will provide for the active participation of beneficiaries, the effective transfer of powers to communal and village governance and management bodies while strengthening the sovereign functions of regional technical directorates and decision-making bodies.

III. Risk Management

A. Risks and mitigation measures

Risks	Level	Mitigation measures
Policy/Governance	High	Participation with TFPs in political dialogue.
Macro-economic	Moderate	Participation with TFPs in political dialogue. Participation in the achievement of inclusive growth that creates jobs, reduces poverty, improves the business climate and governance.
Technical design of project activities	Low	Chain approach and SPAM tested by PAFA-4R. Targeted intervention sites. Technical and environmental studies carried out for the development of the lowlands.
Institutional capacity for implementation	Low	Management and execution team already in place by PAFA-4R and continuous capacity building. Close monitoring of PMU performance by IFAD and the Government.
Fiduciary Management	Low	Ongoing dialogue with the Ministry of Finance.
Environment and social	Moderate	Small hydro-agricultural facilities improved and adapted seeds. Application mitigation and resilience measures. Promotion of innovative and resilient technologies.
Safe	High	Prudential approach in the deployment of activities. Use of locally anchored expertise and mobilization of endogenous mechanisms tested by PAFA-4R to ensure a minimum service in the field when the threat is proven. Deployment of partner consorts

B. Environmental and Social Category

42. Both P2RIA and PAFA-4R are classified in category B. The development of the lowlands will not exceed 20 hectares. Environmental risks related to the misuse of chemical inputs and land degradation will be mitigated by the promotion of sustainable and climate-resilient technologies and conservation agriculture practices including the promotion of biofertilizers and biopesticides. The security threat due to attacks by armed groups may constrain access to areas of intervention and in this case, measures will be taken to ensure security.

C. Climate Risk Ranking

43. The climate risk category chosen is 'high' because of the high dependence and vulnerability of small producers to climate change. Environmental, social and climate issues are at the center of interventions. The main risks are reduced precipitation, extreme precipitation and an increase in the number of days with a temperature exceeding 35°C. Excessive heat ³⁸could affect crops, human productivity. The proposed actions are: (i) the development/rehabilitation of rice lowlands and agricultural areas accompanied by PGES and PGPP, (ii) the acquisition of fertilizers and seeds adapted to agro-climatic conditions and water and temperature stress (iii) the promotion of climate-smart techniques and technologies and (iv) the dissemination of good agro-pastoral practices and meteorological information. The actions of the FA are consistent with national climate commitments (CDN, PNA, NAMA). The resilience of beneficiaries will be strengthened by valuing NWFPs while preserving the species that provide these products. The restoration and conservation of forest and agricultural ecosystems will continue to provide adaptation products and services and carbon sequestration functions.

IV. Execution

A. Compliance with IFAD policies

44. The FA's activities are in line with IFAD's Strategic Framework 2016-2025, which aims to promote inclusive and sustainable rural transformation, and all relevant IFAD policies, including those on gender equality, youth and social inclusion, nutrition, climate change, biodiversity, environmental and natural resource management, and social assessment procedures, environmental and climate. The initiative is aligned with the priorities established by COSOP 2019-2024.

B. Organizational framework

45. **Management and coordination.** The coordination of activities and the management of financial, material and human resources will be ensured by the Project Management Unit (PMU) of PAFA-4R.

46. **Financial management, contracting and governance.** The administrative and financial management will follow the PAFA-4R Procedures Manual and the texts in force. A Work Plan and Budget (ABWP) will be prepared annually. An annual financial audit, funded by PAFA-4R, will be conducted by an audit firm to ensure that accounts are maintained in accordance with international standards and IFAD guidelines.

47. The procurement of works and supplies, as well as consultancy and consultancy services, will comply with Burkina Faso's public procurement code and IFAD procurement guidelines.

48. Good governance and transparency will be applied by: (i) the exercise of project management of POs and rural youth; (ii) through the mechanism for monitoring POs' compliance with their statutes and internal regulations; (iii) compliance with financial management and procurement procedures.

C. Monitoring and evaluation, learning, knowledge management and strategic communication

49. Monitoring and evaluation, knowledge management and communication are based on PAFA-4R mechanisms and tools with manuals that will be updated to ensure capitalization. Periodic reports (quarterly, semi-annual, annual) will provide the level of progress of the project physically and financially.

³⁸ Scientific Support Project for the National Adaptation Plan, November 2019

D. Proposed amendments to the funding agreement

50. The funding agreement with Burkina Faso under the PAFA-4R programme will be amended to reflect the FA.

V. Legal instruments and powers

51. An amendment to the funding agreement is the legal instrument under which the proposed funding will be provided. The funding agreement will be amended following FA approval.

52. Burkina Faso is entitled, under its laws, to receive funding from IFAD.

53. I certify that the proposed additional funding complies with the provisions of the IFAD Agreement and the IFAD Principles and Criteria for Financing.

PAFA-4R Logical Framework (all indicators) – incorporating the GAFSP additional funding target

Results hierarchy	Indicators (*)						Means of verification			Assumptions/notes	
	GAFSP	Name	Reference value	Mid-term (**)	Initial PAFA objective	FA GAFSP	Final objective (PAFA+ FA)	Spring	Frequency		Responsibilities
Scope		1.b Estimated total number of household members			308 000	95 480	403 480				Enabling national policy and institutional framework Availability of efficient partners and service providers
		1.a Corresponding number of households affected			40 000	12 400	52 400				
	Level 2 IOV 1	People receiving services promoted or supported by the project						Project HSE	Quarterly	UCP	
		Men		28 000	35 000	10 850	45 850				
		Wives		28 000	35 000	10 850	45 850				
		Youths		16 800	21 000	15 680	36 680				
	Total number of persons	0	56 000	70 000	21 700	91 700					
Overall objective Contribute to poverty reduction and stimulate economic growth in the Boucle du Mouhoun, Cascades, Hauts-Bassins and Sud-Ouest regions		Persons benefiting from economic mobility (number) (*)	0	37 800	63 000	8 730	71 730	Impact assessment	Year 1.3 and 6	IFAD and Government	
		Households with a lean season of up to 2 months (%)	30,77		70	-	70	Impact assessment	Year 1.3 and 6	IFAD and Government	
		Number of people whose resilience has strengthened (*)		37 800	63 000	8730	71 730	Impact assessment	Year 1.3 and 6	IFAD and Government	
Development objective. Sustainably improve food security and the incomes of farms involved in the production and valorization of products in the rice, market gardening, sesame and cowpea sectors		Households reporting an increase in income of at least 30%.	0	65	80	-	80	Specific survey	Annual	UCP, Providers	Enabling national policy and institutional framework Availability of efficient partners and service providers
Effect1. The productivity of agricultural systems in targeted value chains and the nutritional quality of household diets are improved		Households reporting an increase in production (%) (1.2.4)	0	85	90	-	90	Specific survey	Annual	UCP, Providers	Good capacity to implement Market Access Sub-Projects (SPAM) Farmers' interests in agro-ecological practices
		Increase in yield (t/ha)						Specific survey	Annual	UCP, Providers	
		Lowland rice	1,9	4	4	-	4				
		Onion	20	21	25	-	25				
		Cowpeas	0,44	0,81	0,9	-	0,9				
		Households reporting better access to land, forests, water or water for production (%) (1.2.1)	35,1	85	90	-	90	Specific survey	Annual	UCP, Providers	
Level 1	Women reporting minimum dietary diversity (MDDW) (%) (1.2.8)	0	20	50	-	50	IOC, MDDW methodology	baseline, mid-term, final	UCP, Service Providers		

Results hierarchy	Indicators (*)							Means of verification			Assumptions/notes	
	GAFSP	Name	Reference value	Mid-term (**)	Initial PAFA objective	FA GAFSP	Final objective (PAFA+ FA)	Spring	Frequency	Responsibilities		
Output 1.1. Techniques and knowledge that sustainably improve agricultural productivity and nutritional status are mastered by stakeholders	Level 2 IOV 3	Rural producers with access to production inputs and/or technology packages (number) (*) (1.1.3)	0	26 560	33 200	7 800	41 000	SSE project	Quarterly	UCP		
	Level 2 IOV 9	Organization of producers supported (number) (2.1.3)	0	720	900	248	1148	SSE project	Quarterly	UCP, Service Providers		
		Persons trained in production practices and/or technologies (number) (*) (1.1.4)		26 560	33 200	7 800	41 000	SSE project	Quarterly	UCP, Service Providers		
			Men		13 280	16 600	3 900					20 500
			Wives		13 280	16 600	3 900					20 500
	Level 2 IOV 12	Households and individuals receiving targeted support to improve their nutrition (number) (1.1.8)							SSE project	Quarterly		UCP
		Household (number)										
	Persons (*)		3 300	6 600	14 000	20 600						
Level 2 IOV 14	Number of hectares of land under climate-resilient management (ha) (3.1.4)			4 080	5 100	1 040	6 140	SSE project	Quarterly	UCP, Service Providers		
Output 1.2. Sustainable infrastructure improves productivity in targeted agricultural value chains	Level 2 IOV 2	Agricultural land with built/rehabilitated water infrastructure (ha) (1.1.2)		1 920	2 400	600	3 000	SSE project	Biannual	UCP, Service Providers		
		Marketing, processing and storage facilities constructed or refurbished (number) (2.1.6)		250	350	-	350	SSE project	Biannual	UCP, Service Providers		
Effect 2. The valorization and marketing of agricultural products in the targeted sectors is improved	Level 2 IOV8	Jobs created at MER level (number) (*) (2.2.1)	0	2 700	3 600	780	4 380	ESS, REERC Report	Quarterly	UCP, CREER	Markets for supported sectors remain buoyant - Young people's interest in integrating into supported sectors	
		Percentage increase in volumes of processed and marketed agricultural products (%)		60	75	-	75	Specific survey	Annual	UCP, Service Providers		
		Rural producer organizations with formal partnerships/agreements or contracts with public or private bodies (%) (2.2.3)		40	60	-	60	SSE, service providers	Biannual	UCP Providers		
Output 2.1 Consultation and collaboration between actors in the sectors are improved		Funded sector development sub-projects	0	12	16	-	16	SSE, provider report	Quarterly	UCP, MEBF	Willingness of inter-branch organisations to strengthen their consultation bodies at regional level	
		Contracts stipulating quality norms or standards (%)		50	80	-	80	SSE, provider report	Biannual	UCP, service providers		
		Number of OPBs with access to a formal financial service (savings, credit, insurance, payment)	0	360	720		720	Inquiry	Annual	UCP, service providers		
		Number of OPBs trained in literacy/financial education		360	720		720	Inquiry	Annual	UCP, service providers		

Results hierarchy	Indicators (*)							Means of verification			Assumptions/notes
	GAFSP	Name	Reference value	Mid-term (**)	Initial PAFA objective	FA GAFSP	Final objective (PAFA+ FA)	Spring	Frequency	Responsibilities	
Output 2.2. REMs have access to business development services tailored to their needs		Business plans of funded REMs	0	1 700	2 100	390	2 490	ESS, CREER report	Quarterly	UCP, CREER	REERCs' ability to sustain themselves
		Number of MECs producing food that contributes to the fight against malnutrition		160	210	195	405	ESS, CREER report	Quarterly	UCP, CREER	
	Level 2 IOV10	Rural businesses with access to business development services (2.1.1)		1 500	1 900	108	2 250	ESS, CREER report	Quarterly	UCP, CREER	
	Level 2 IOV7	Number of REMs with access to a formal financial service (savings, credit, insurance, payment)	0	840	1 680		1680	Inquiry	Annual	UCP, service providers	
		Number of MEFs trained in literacy/financial education	0	840	1 680		1680	Inquiry	Annual	UCP, service providers	

(*) Number of groups by gender and age (men, women and young people aged 18-35).

(**) Mid-term values are targets of the initial PAFA-4R

Updated summary of the economic and fiscal analysis

Table A
Financial Cash Flow Models

	Lowland rice production and market gardening	Sesame production	Cowpea production	Market gardening perimeter	Fish ponds	Preservation of onions	Business services	Honey production and processing	Fish farming in enclosures of 100m2	Shea collection and processing	Moringa processing	
FINANCIAL ANALYSIS	AN1	(4,476,168)	(138,546)	(93,758)	(5,374,300)	(914,700)	0	(8,208,571)	(115,920)	374,000	(5,165,900)	(1,394,500)
	AN2	682,464	24,362	60,565	2,743,596	355,300	(763,667)	(2,397,143)	341,540	499,000	3,410,000	4,585,500
	AN3	829,024	91,374	119,880	3,767,467	335,300	506,333	(2,897,143)	399,000	404,000	3,935,000	5,510,500
	AN4	860,880	80,374	107,761	3,857,467	55,300	456,333	4,602,857	410,000	469,000	3,935,000	5,510,500
	AN5	676,647	91,374	117,111	3,154,967	335,300	506,333	4,602,857	405,000	404,000	3,935,000	5,510,500
	AN6	851,044	45,874	71,200	3,857,467	205,300	456,333	4,202,857	352,000	499,000	3,315,000	4,105,500
	AN7	815,044	80,374	105,444	3,767,467	35,300	466,333	702,857	388,000	374,000	3,935,000	5,510,500
	AN8	847,467	51,374	75,700	3,857,467	355,300	456,333	4,202,857	404,000	499,000	3,935,000	5,510,500
	AN9	660,253	91,374	114,930	3,154,967	335,300	506,333	702,857	405,000	404,000	3,935,000	5,510,500
	AN10	833,079	80,374	72,827	3,857,467	55,300	(723,667)	7,580,000	410,000	469,000	3,935,000	5,510,500
IRR (financial)	10%	44%	93%	61%	23%	60%	14%	307%	N/A	71%	344%	
NPV (@8%, '000 FCFA)	378	273	458	15,428	528	1,152	3,752	2,138	2,936	17,137	28,904	
NPV (@8%, EUR)	576	416	698	23,518	805	1,755	5,720	3,259	4,476	26,123	44,061	
NPV (@8%, EUR), per household	143.98	208	349	2,352	80	176	1,907	3,259	448	1,045	1,762	
B/C	1.05	1.3	1.4	2.1	1.1	1.5	1.1	2.5	1.7	2.0	1.5	

Table B**Project Costs and Logical Framework Targets**

PROJECT COSTS AND LOGICAL FRAMEWORK INDICATORS			
TOTAL COST OF THE PROJECT, EUR	128,700,000	TOTAL COST OF THE PROJECT, million FCFA	84,427
Beneficiaries	91,700	Households	52,400
Cost per recipient	1,403	Cost per household	2,456
Components	Costs, EUR million	Indicators	
<u>A. Improving agricultural productivity and production</u>	56,2	% of households reporting improved access to land or water for production	
<u>B. Support for the development and marketing of agricultural products</u>	64.6	Number of jobs created at the level of the MER % of POs supported having concluded formal partnerships/agreements or contracts with public or private bodies	
<u>C. Coordination, monitoring and evaluation and knowledge management</u>	7.9		

Table C

Key assumptions and fictitious prices

Rendements (Kg/ha)	Sans Projet	Avec Projet		
Riz de bas-fonds; kg/ha	1500	4000	167%	
Oignon; kg/ha	13000	25000	92%	
Sésame; kg/ha	370	800	116%	
Niébé; kg/ha	300	900	200%	
Miel; kg/rûche		20		
Facteurs de Conversion		Prix financier	Prix économique	Facteur de conversion
Taux de change		656	685	0.7
Importations: carburant		600	431	0.7
Importations: ordinateurs et autres équipements informatiq		100	82	1.0
Importations: intrants agricoles (engrais, traitements, équip		300	291	0.8
Importations: autres		100	78	1.0
Main d'oeuvre		1,250	1,033	0.9
Substitution aux importations: riz paddy et autres		150	134	1.1
Exportations: sésame (et autres biens exportables)		500	533	0.8
Non-échangeables avec TVA		100	85	0.8

Table D
Pace of adoption by beneficiaries and phasing

		2020	2021	2022	2023	2024	2025	Total
CALENDRIER AGREGATION								
Production de riz de bas fond et maraîchage	Hectare	400	1,400	1,000	1,000	500	500	4,800
Production de sésame	Hectare	-	800	800	-	-	-	1,600
Production de niébé	Hectare	-	400	400	-	400	400	1,600
Périmètre maraîcher	Hectare	400	650	250	-	100	100	1,500
Bassins piscicoles	4 bassins	50	-	-	-	-	-	50
Conservation d'oignons	Unité	25	125	113	-	-	-	263
Prestation d'entreprises	CREER	12	-	-	-	-	-	12
Production et transformation de miel	Plan d'affaire	100	100	75	50	100	-	425
Pisciculture en enclos de 100m2	Plan d'affaire	92	92	92	67	33	-	375
Collecte et transformation de karité	Plan d'affaire	92	92	92	67	33	-	375
Transformation de moringa	Plan d'affaire	92	92	92	67	33	-	375
CALENDRIER AGREGATION		Taux d'adoption						
Production de riz de bas fond et maraîchage	75%	300	1,050	750	750	375	375	3,600
Production de sésame	75%	-	600	600	-	-	-	1,200
Production de niébé	75%	-	300	300	-	300	300	1,200
Périmètre maraîcher	65%	260	423	163	-	65	65	976
Bassins piscicoles	65%	33	-	-	-	-	-	33
Conservation d'oignons	70%	18	88	79	-	-	-	185
Prestation d'entreprises	65%	8	-	-	-	-	-	8
Production et transformation de miel	65%	65	65	49	33	65	-	277
Pisciculture en enclos de 100m2	65%	60	60	60	43	22	-	245
Collecte et transformation de karité	65%	60	60	60	43	22	-	245
Transformation de moringa	65%	60	60	60	43	22	-	245

Table E
Economic cash flows

Millions de FCFA		Production de riz de bas fond et maraîchage	Production de sésame	Production de niébé	Périmètre maraîcher	Bassins piscicoles	Conservation d'oignons	Prestation d'entreprises	Production et transformation de miel	Pisciculture en enclos de 100m2	Collecte et transformation de karité	Transformation de moringa	Total, bénéfiques additionnels	Total, bénéfiques	Autres coûts	Bénéfices nets additionnels
	AN1	- 1,113,149	-	-	- 1,086,319	- 25,115	- 9,673	- 53,698	1,480	-	- 213,944	- 2,542	(3)	(3)	5	(8)
	AN2	- 3,685,004	- 76,045	- 25,717	- 984,452	9,406	- 37,395	- 16,291	27,745	17,471	6,421	332,191	(4)	(4)	5	(9)
	AN3	- 1,778,075	- 55,218	- 5,937	1,666,046	8,889	14,954	- 12,344	57,572	40,816	260,371	733,432	1	1	6	(5)
	AN4	- 1,058,352	84,517	57,057	3,328,773	1,652	97,454	38,166	81,564	59,696	574,938	1,135,393	4	4	2	2
	AN5	943,448	120,982	45,640	3,096,389	8,889	97,018	38,166	98,893	76,682	841,332	1,442,682	7	7	2	5
	AN6	1,211,415	120,982	65,420	3,195,329	5,529	96,756	35,583	122,841	82,833	995,511	1,543,109	7	7	1	6
	AN7	2,975,227	100,915	118,381	3,889,631	1,135	93,605	15,531	125,978	86,252	1,007,826	1,567,495	10	10	0	10
	AN8	3,035,437	94,516	129,481	4,063,612	9,406	94,390	35,583	127,197	82,339	1,007,826	1,567,495	10	10	0	10
	AN9	3,036,312	97,715	131,081	3,870,633	8,889	79,018	15,531	127,818	85,735	1,016,081	1,587,584	10	10	0	10
	AN10	2,896,378	104,114	124,246	3,773,846	1,652	8,581	61,790	126,884	83,350	1,026,279	1,612,401	10	10	0	10
	AN11	2,993,889	120,982	120,756	3,985,153	1,652	13,752	61,790	129,758	85,241	1,036,962	1,638,399	10	10	0	10
	AN12	2,983,182	114,584	110,432	4,093,430	1,652	92,752	61,790	130,879	85,888	1,036,962	1,638,399	10	10	0	10
	AN13	3,037,726	114,584	113,631	4,054,834	1,652	92,752	61,790	131,024	87,897	1,036,962	1,638,399	10	10	0	10
	AN14	3,032,965	114,584	113,340	4,054,834	1,652	92,752	61,790	131,349	88,449	1,036,962	1,638,399	10	10	0	10
	AN15	3,093,456	114,584	101,416	4,098,012	1,652	92,752	61,790	131,349	89,569	1,036,962	1,638,399	10	10	0	10
	AN16	3,093,456	114,584	101,416	4,098,012	1,652	92,752	61,790	131,349	89,569	1,036,962	1,638,399	10	10	0	10
	AN17	3,093,456	114,584	101,416	4,098,012	1,652	92,752	61,790	131,349	89,569	1,036,962	1,638,399	10	10	0	10
	AN18	3,093,456	114,584	101,416	4,098,012	1,652	92,752	61,790	131,349	89,569	1,036,962	1,638,399	10	10	0	10
	AN19	3,093,456	114,584	101,416	4,098,012	1,652	92,752	61,790	131,349	89,569	1,036,962	1,638,399	10	10	0	10
	AN20	3,093,456	114,584	101,416	4,098,012	1,652	92,752	61,790	131,349	89,569	1,036,962	1,638,399	10	10	0	10
VAN@ 6% (FCFA)			56,919,286													
VAN@ 6% (EUR)			86,767													
EIRR			24.6%													

Table F
Sensitivity analysis

SENSITIVITY ANALYSIS				
	Δ %	Link to Risk Matrix	NPV (thousands FCFA) (8%) of	SORTS
Baseline scenario			57	24.6%
Costs +	10 %	Security issues (and increased security spending)	55	23.2%
Costs +	25 %		52	21.4%
Revenue-	10 %	Drought or other scenarios that lower crop yields	49	23.1%
Revenue-	25 %		38	20.5%
Benefits delayed by 1 year		Delay in starting the project, security problem	50	21.6%
Benefits delayed by 2 years			41	18.0%
Adoption rate -	10 %	Insufficient support, inadequate techniques and materials	40	22.1%
Adoption rate -	25 %		25	17.5%