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Report No: PAD4173

INTERNATIONAL DEVELOPMENT ASSOCIATION
PROJECT APPRAISAL DOCUMENT
ON
PROPOSED CREDITS IN THE AMOUNTS OF
EUR 38.9 MILLION (US$45.0 MILLION EQUIVALENT)
TO BURKINA FASO
EUR 26.0 MILLION (US$30.0 MILLION EQUIVALENT)
TO THE REPUBLIC OF MALI
EUR 26.0 MILLION (US$30.0 MILLION EQUIVALENT)
TO THE REPUBLIC OF NIGER
EUR 38.9 MILLION (US$45.0 MILLION EQUIVALENT)
TO THE REPUBLIC OF TOGO

PROPOSED GRANTS IN THE AMOUNTS OF
SDR 7.1 MILLION (US$10.0 MILLION EQUIVALENT)
TO THE PERMANENT INTERSTATE COMMITTEE FOR DROUGHT CONTROL IN THE SAHEL (CILSS)
SDR 7.1 MILLION (US$10.0 MILLION EQUIVALENT)
TO THE WEST AND CENTRAL AFRICA COUNCIL FOR AGRICULTURE RESEARCH AND DEVELOPMENT (CORAF)
SDR 7.1 MILLION (US$10.0 MILLION EQUIVALENT)
TO THE ECONOMIC COMMUNITY OF WEST AFRICAN STATES (ECOWAS)
SDR 32.0 MILLION (US$45.0 MILLION EQUIVALENT)
TO BURKINA FASO
SDR 21.3 MILLION (US$30.0 MILLION EQUIVALENT)
TO THE REPUBLIC OF MALI
SDR 21.3 MILLION (US$30.0 MILLION EQUIVALENT)
TO THE REPUBLIC OF NIGER
SDR 32.0 MILLION (US$45.0 MILLION EQUIVALENT)
TO THE REPUBLIC OF TOGO

FOR A
WEST AFRICA FOOD SYSTEM RESILIENCE PROGRAM (FSRP)
PHASE 1 UNDER THE MULTI-PHASE PROGRAMMATIC APPROACH

WITH AN OVERALL FINANCING ENVELOPE OF
US$570.0 MILLION EQUIVALENT

OCTOBER 25, 2021

Agriculture And Food Global Practice
Western and Central Africa Region

CURRENCY EQUIVALENTS

(Exchange Rate Effective September 30, 2021)

Currency Unit		
FCFA 550 =	US$1
SDR 0.7097 =	US$1
EUR 0.8642	US$1

FISCAL YEAR
January 1 - December 31

Regional Vice President:	Ousmane Diagana
Country Director:	Boutheina Guermazi
Regional Director:	Simeon Kacou Ehui
Practice Managers:	Chakib Jenane, Maria Sarraf, Sylvie Debomy, Yogita Mumssen
Task Team Leaders:	Amadou Ba, Laura Bonzanigo, Makoto Suwa, Taoufiq Bennouna, Tobias Baedeker

ABBREVIATIONS AND ACRONYMS

ACBP	Africa Climate Business Plan
AfCFTA	African Continental Free Trade Area
AFD	French Development Agency *(Agence Française de Développement)*
AfDB	African Development Bank
AFSLD	African Food Security Leadership Dialogue
AGIR	Global Alliance for Resilience Initiative *(Alliance Globale pour l'Initiative Résilience)*
AGRHYMET	Regional Training and Application Center in Agrometeorology and Operational Hydrology *(Centre régional de Formation et d'Application en Agrométéorologie et Hydrologie Opérationnelle)*
AICCRA	Accelerating Impacts of CGIAR Climate Research for Africa
APCA	Agency for the Promotion of Agricultural Advice *(Agence de Promotion du Conseil Agricole)*
ARAA	Regional Agency for Agriculture and Food *(Agence Régionale pour l'Alimentation et l'Agiculture)*
ASA	Advisory Services and Analytics
ASARECA	Association for Strengthening Agricultural Research in Eastern and Central Africa
AU	African Union
AWPB	Annual Work Plan and Budget
CAADP	Comprehensive Africa Agriculture Development Program
CCFV	Village Land Conciliation Commissions
CERC	Contingent Emergency Response Component
CFV	Village Land Commissions
CGIAR	Consultative Group on International Agricultural Research
CILSS	Permanent Interstate Committee on Drought Control in the Sahel
CMM	Complaint Management Mechanism
CNRA	National Agriculture Research Council
CORAF/WECARD	West and Central Africa Council for Agriculture Research and Development
COVID-19	Corona Virus Disease-2019
CPF	Country Partnership Framework
CPS	Country Partnership Strategy
CPSD	Country Private Sector Diagnostic
CREWS	Climate Risk and Early Warning Systems
CRS-EL	Regional Specialized Center for Livestock
CSA	Climate Smart Agriculture
CSAIP	Climate Smart Agriculture Investment Plan
CSO	Civil Society Organization
DA	Designated Account
DFIL	Disbursement and Financial Information Letter
DGA	Directorate General of Agriculture
DGEF	Directorate General of Water and Forestry
DRM	Disaster Risk Management
EATM-Scorecard	ECOWAS Agriculture Trade and Market Accountability Mechanism
ECOAGRIS	ECOWAS Agriculture Information System
ECOWAP	ECOWAS Common Agricultural Policy
ECOWAS	Economic Community of West African States
EFA	Economic and Financial Analysis
EHS	Environmental, Health and Safety
EIRR	Economic Rate of Return
ERM	Emergency Response Manual
ESCP	Environmental and Social Commitment Plan

ESF	Environmental and Social Framework
ESHS	Environmental, Social, Health and Safety
ESRS	Environmental and Social Review Summary
ESMF	Environmental and Social Managament Framework
ESMP	Environmental and Social Management Plan
ESS	Environmental and Social Standard
ETLS	ECOWAS Trade Liberalization Scheme
EU-DevCo	European Union's Directorate for Development and Cooperation (of the Commission)
FAO	Food and Agriculture Organization of the United Nations
FARA	Forum for Agricultural Research in Africa
FCV	Fragility, Conflict and Violence
FFS	Farmers Field School
FISAN	Investment Fund for Food and Nutrition Security
FM	Financial Management
FSRF	Food System Resilience Facility
FSRP	Food System Resilience Program
FY	Fiscal Year
GAFSP	Global Agriculture and Food Security Program
GAM	Global Acute Malnutrition
GBV	Gender-based Violence
GDP	Gross Domestic Product
GEMS	Geo-Enabled initiative for Monitoring and Supervision
GGW	Great Green Wall
GGWI	Great Green Wall Initiative
GHG	Greenhouse Gas
GIS	Geographic Information System
GM	Grievance Mechanism
GRM	Grievance Redress Mechanism
GRiF	Global Risk Financing Facility
HACCP	Hazard Analysis and Critical Control Points
I3N	Nigeriens Nourishing Nigeriens Initiative
IAR4D	Integrated Agricultural Research for Development
ICT	Information and Communication Technology
IDA	International Development Association
IE	Impact Evaluation
IFAD	International Fund for Agricultural Development
IFC	International Finance Corporatetion
IFPRI	International Food and Policy Institute
IFR	Interim un-audited Financial Report
IITA	International Institute of Tropical Agriculture
ILM	Integrated Landscape Management
ILMP	Integrated Landscape Management Plan
INERA	National Institute of Environment and Agricultural Research
INRAN	National Institute of Agronomic Research of Niger
INSAH	Sahel Institute *(Institut du Sahel)*
IPCC	Intergovernmental Panel on Climate Change
IPF	Investment Project Financing
LMP	Labor Management Procedures
LU	Landscape Unit
M&E	Monitoring and evaluation
MAAHM	Ministry of Agriculture, Hydro-Agricultural Developments and Mechanization (Burkina Faso)

MAEDR	Ministry of Agriculture, Livestock and Rural Development (Togo)
MDR	Ministry of Rural Development (Mali)
MFD	Maximizing Finance for Development
MoU	Memorandum of Understanding
MPA	Multiphase Programmatic Approach
MSME	Micro, Small and Medium Enterprises
NBA	Niger Basin Authority
NCoS	National Center of Specialization
NCS-FL	National Center for Specialization in Fruit and Vegetables
NEPAD	New Partnership for African Development
NGO	Non-governmental Organization
NMHS	National Meteorological and Hydrological Services
NPV	Net Present Value
NSmartAg	Nutrition Smart Agriculture
OHADA	Organization for the Harmonization of Business Law in Africa
O&M	Operation and Maintenance
PA	Programmatic Approach
PAs	Productive Alliances
PAD	Program Appraisal Document
PARIIS	Sahel Irrigation Initiative Support Project
PASA	Togo Agriculture Sector Support Project
PAU	Agriculture policy of WAEMU
PDAZAM	Mali Drylands Développement Project *(Projet de Développement et de Diversification Agricole dans les Zones Arides et Semi-arides du Mali)*
PDES	Economic and Social Development Program for Niger
PDIPC	Niger Climate Information Development and Forecasting Project
PDO	Project Development Objective
PF	Partnership Framework
PGN	Pest Management Plan
PIM	Program Implementation Manual
PIU	Project Implementation Unit
PMP	Pest Management Plan
PNDES	National Economic and Social Development Plan
PNIASA	National Agricultural Investment and Food Security Program for Togo
PO	Producer Organization
PP	Procurement Plan
PPP	Purchasing Power Parity
PPSD	Project Procurement Strategy for Development
PRAPS	Regional Sahel Pastoralism Support Project
PrDO	Program Development Objective
PReCA	Burkina Faso Agricultural Resilience and Competitiveness Project
PS-PASP	Sectoral Policy on Agro-Sylvo Pastoral Production
R&D	Research and Development
RAIP	Regional Agriculture Investment Plan
RANIP	Regional Agriculture and Nutrition Investment Plan
RAPs	Resettlement Action Plans
RCoE	Regional Center of Excellence
RCoS	Regional Center of Specialization
REC	Regional Economic Communities
REDISSE	Regional Disease Surveillance and Response Project
ROs	Regional organizations

RPCA	Food Crisis Prevention Network *(Réseau de Prévention des Crises Alimentaires)*
RPF	Resettlement Policy Framework
RSC	Regional Steering Committee
RTSUs	Regional Technical Support Units
SAN/DAD	Food and Nutrition Security and Sustainable Agricultural Development Strategy for Niger
SAWAP	Sahel and West Africa Program in support of the Great Green Wall
SCAP/RU	Community Early Warning and Emergency Response Systems
SCD	Systematic Country Diagnostic
SCDDI	Sustainable Development and Inclusive Growth Strategy
SDG	Sustainable Development Goal
SEA	Sexual Exploitation and Abuse
SE-CNSA	Executive Secretariat of the National Food Security Council
SFR	Rural Land Services
SH	Sexual Harassment
SIIP	Sahel Irrigation Initiative Support Project
SLWM	Sustainable Land and Water Management
SME	Small and Medium Enterprise
SOE	Statements of Expenditure
SORT	Systematic Operations Risk-Rating Tool
SPIN	Small-Scale Irrigation Strategy of Niger
SPF	Strategic Policy Framework
SPS	Sanitary and Phytosanitary Measures
SSA	Sub-Saharan Africa
STEP	Systematic Tracking of Exchanges in Procurement (
SYSCOHADA	West African Accounting System
SWAC/OECD	Sahel and West Africa Club - Organization for Economic Co-operation and Development
TA	Technical Assistance
TF	Trust Fund
TFWA	Trade Facilitation West Africa
ToC	Theory of Change
ToRs	Terms of Reference
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Program
UNICEF	United Nations International Children's Emergency Fund
VMO	Vulnerability monitoring observatories
WAAPP	West Africa Agricultural Productivity Program
WAEMU	West African Economic and Monetary Union
WBG	World Bank Group
WG	Working Group
WHO	World Health Organization
WMO	World Meteorological Organization
WOP	With-out program
WP	With program
WTO	World Trade Organization

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[Component name 3 has to be adjusted in the datasheet through the system]

DATASHEET

BASIC INFORMATION

Country(ies)	Project Name	
Africa, Burkina Faso, Mali, Niger, Togo	West Africa Food System Resilience Program (FSRP)	
Project ID	**Financing Instrument**	**Environmental and Social Risk Classification**
P172769	Investment Project Financing	Substantial

Financing & Implementation Modalities

[✓] Multiphase Programmatic Approach (MPA)	[✓] Contingent Emergency Response Component (CERC)
[ ] Series of Projects (SOP)	[✓] Fragile State(s)
[ ] Performance-Based Conditions (PBCs)	[ ] Small State(s)
[ ] Financial Intermediaries (FI)	[✓] Fragile within a non-fragile Country
[ ] Project-Based Guarantee	[✓] Conflict
[ ] Deferred Drawdown	[ ] Responding to Natural or Man-made Disaster
[ ] Alternate Procurement Arrangements (APA)	[ ] Hands-on Enhanced Implementation Support (HEIS)

Expected Project Approval Date	Expected Project Closing Date	Expected Program Closing Date
18-Nov-2021	31-Dec-2026	31-Dec-2028
Bank/IFC Collaboration	**Joint Level**	
Yes	Complementary or Interdependent project requiring active coordination	

MPA Program Development Objective

To increase preparedness against food insecurity and improve the resilience of food systems in participating countries.

MPA Financing Data (US$, Millions)

MPA Program Financing Envelope	641.00

Proposed Project Development Objective(s)

To increase preparedness against food insecurity and improve the resilience of food systems in participating countries.

Components

Component Name	Cost (US$, millions)
Digital advisory services for agriculture and food crisis prevention and management	48.80
Sustainability and adaptive capacity of the food system's productive base	193.70
Regional food market integration and trade	121.70
Contingent Emergency Response (CERC)	0.00
Project Management	36.80

Organizations

Borrower:	CORAF ECOWAS CILSS Republic of Mali Republic of Niger Republic of Togo Republic of Burkina Faso
Implementing Agency:	Ministry of Agriculture, Hydro-Agricultural Developments and Mechanization - Burkina Faso Ministry of Rural Development - Mali Ministry of Agriculture, Livestock and Rural Development - Togo Ministry of Agriculture - Niger

MPA FINANCING DETAILS (US$, Millions)

MPA Program Financing Envelope:	641.00
of which Bank Financing (IBRD):	0.00
of which Bank Financing (IDA):	570.00
of which other financing sources:	71.00

PROJECT FINANCING DATA (US$, Millions)

SUMMARY

Total Project Cost	401.00
Total Financing	354.00
of which IBRD/IDA	330.00
Financing Gap	47.00

DETAILS

World Bank Group Financing

International Development Association (IDA)	330.00
IDA Credit	150.00
IDA Grant	180.00

Non-World Bank Group Financing

Trust Funds	24.00
Global Agriculture and Food Security Program	24.00

IDA Resources (in US$, Millions)

	Credit Amount	Grant Amount	Guarantee Amount	Total Amount
Burkina Faso	45.00	45.00	0.00	90.00
National PBA	15.00	15.00	0.00	30.00
Regional	30.00	30.00	0.00	60.00
Mali	30.00	30.00	0.00	60.00
National PBA	10.00	10.00	0.00	20.00
Regional	20.00	20.00	0.00	40.00
Niger	30.00	30.00	0.00	60.00
National PBA	10.00	10.00	0.00	20.00

Regional	20.00	20.00	0.00	40.00
Togo	45.00	45.00	0.00	90.00
National PBA	15.00	15.00	0.00	30.00
Regional	30.00	30.00	0.00	60.00
Africa	0.00	30.00	0.00	30.00
Regional	0.00	30.00	0.00	30.00
Total	**150.00**	**180.00**	**0.00**	**330.00**

INSTITUTIONAL DATA

Practice Area (Lead)

Agriculture and Food

Contributing Practice Areas

Climate Change, Environment, Natural Resources & the Blue Economy, Urban, Resilience and Land, Water

Climate Change and Disaster Screening

This operation has been screened for short and long-term climate change and disaster risks

SYSTEMATIC OPERATIONS RISK-RATING TOOL (SORT)

Risk Category	Rating
1. Political and Governance	Substantial
2. Macroeconomic	Substantial
3. Sector Strategies and Policies	Substantial
4. Technical Design of Project or Program	Moderate
5. Institutional Capacity for Implementation and Sustainability	Substantial
6. Fiduciary	Substantial
7. Environment and Social	Substantial
8. Stakeholders	Substantial
9. Other	High

10. Overall	Substantial
Overall MPA Program Risk	Substantial

COMPLIANCE

Policy

Does the project depart from the CPF in content or in other significant respects?

[ ] Yes [✓] No

Does the project require any waivers of Bank policies?

[ ] Yes [✓] No

Environmental and Social Standards Relevance Given its Context at the Time of Appraisal

E & S Standards	Relevance
Assessment and Management of Environmental and Social Risks and Impacts	Relevant
Stakeholder Engagement and Information Disclosure	Relevant
Labor and Working Conditions	Relevant
Resource Efficiency and Pollution Prevention and Management	Relevant
Community Health and Safety	Relevant
Land Acquisition, Restrictions on Land Use and Involuntary Resettlement	Relevant
Biodiversity Conservation and Sustainable Management of Living Natural Resources	Relevant
Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities	Not Currently Relevant
Cultural Heritage	Relevant
Financial Intermediaries	Not Currently Relevant

NOTE: For further information regarding the World Bank's due diligence assessment of the Project's potential environmental and social risks and impacts, please refer to the Project's Appraisal Environmental and Social Review Summary (ESRS).

Legal Covenants

Sections and Description

ECOWAS : Within three (3) months from the Effective Date, establish, and thereafter maintain at all times during the implementation of the Project, a Project Implementation Unit ("PIU") with terms of reference, qualified staffing and resources satisfactory to the Association. Without limitation to the foregoing, initial PIU staff to be recruited shall include the following: (i) a program coordinator; (ii) a monitoring and evaluation, capitalization and knowledge management expert; (iii) a communication and visibility expert; (iv) an assistant tasked with coordination; (v) an environmental safeguards expert, all based in Abuja, Nigeria, as well as (i) an administration and finance assistant and (ii) a procurement assistant, both to be based at ARAA.

Sections and Description

ECOWAS : Within six (6) months from the Effective Date, procure an external auditor, with terms of reference satisfactory to the Association.

Sections and Description

ECOWAS : Within five (5) months from the Effective Date, customize the existing computerized accounting system, in accordance with terms of reference satisfactory to the Association.

Sections and Description

CILSS : Within six (6) months from the Effective Date, procure an external auditor, with terms of reference satisfactory to the Association.

Sections and Description

CILSS : (b)

Wi

thin three (3) months from the Effective Date, recruit the following additional PIU staff, with terms of reference and with qualifications and experience satisfactory to the Association: (i) a program officer; (ii) two technical experts; (iii) a monitoring and evaluation specialist; (iv) a procurement assistant; (v) a financial management specialist and (vi) one accountant .

Sections and Description

CILSS : Within five (5) months from the Effective Date, procure and install a computerized accounting system, with technical specifications satisfactory to the Association.

Sections and Description

CORAF : Within six (6) months from the Effective Date, procure an external auditor, with terms of reference satisfactory to the Association.

Sections and Description

CORAF : Within three (3) months from the Effective Date, recruit the following additional PIU staff, with terms of reference and with qualifications and experience satisfactory to the Association: (i) a program officer (ii) a procurement specialist; (iii) a monitoring and evaluation specialist; and (iv) an accountant.

Sections and Description

CORAF : Within five (5) months from the Effective Date, procure and install a computerized accounting system, with technical specifications satisfactory to the Association.

Sections and Description

Burkina Faso : Within six (6) months from the Effective Date, procure an external auditor, with terms of reference satisfactory to the Association.

Sections and Description

Burkina Faso : Within three (3) months from the Effective Date, the Recipient, through the PIU, shall hire experienced non-governmental organizations, producers' organizations or professional facilitators, with terms of reference satisfactory to the Association, to facilitate the implementation of Part 2.2 of the Project.

Sections and Description

Burkina Faso : Within three (3) months from the Effective Date:
(1)

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cruit the following additional PIU staff: (i) a Technical Manager, (ii) a Chief Accountant, (iii) an Assistant Accountant, (iii) a Procurement Specialist, (iv) Agro-meteorologist,(v) Specialist in nutrition and gender, (vi) an Agronomist (vii) a Monitoring and Evaluation Specialist, (x) an SEA/SH Specialist, (xi) an environmental specialist; and (xii) a social development specialist, with terms of reference and with qualifications and experience satisfactory to the Association;
(2)

ap

point a security specialist, with terms of reference and with qualifications and experience satisfactory to the Association.

Sections and Description

Burkina Faso ; Within five (5) months from the Effective Date, procure and install a computerized accounting system, with technical specifications satisfactory to the Association.

Sections and Description

Mali : Within six (6) from the Effective Date, procure an external auditor, with terms of reference satisfactory to the Association.

Sections and Description

Mali : Within three (3) months from the Effective Date, assign the existing Technical Director of the PIU to be the Coordinator of the PIU, and recruit the following additional PIU staff: (i) A Procurement Specialist, (ii) a Procurement Assistant (iii) a Monitoring and Evaluation Officer (iv) an Agro-Hydrometeorology Specialist, (v) an Integrated Landscape Management Specialist, (vi) a Trade Facilitation Specialist, , (vii) (ix) Gender Specialist, (x) a Gender-based Violence Specialist, and (xi) a Security Specialist, all with terms of reference and with qualifications and experience satisfactory to the Association. .

Sections and Description

Mali : Within three (3) months from the Effective Date, the Recipient, through the PIU, shall also hire experienced non-governmental organizations or professional facilitators, with terms of reference satisfactory to the Association, to facilitate the implementation of Part 2.2 of the Project.

Sections and Description

Mali : Within five (5) months from the Effective Date, procure and install a computerized accounting system, with technical specifications satisfactory to the Association.

Sections and Description

Niger : Within three (3) months from the Effective Date:, recruit the following additional PIU staff: three technical specialists, three assistant accountants, one procurement assistant, one environmental specialist, one social development specialist, one SEA/SH specialist, and one security specialist, with terms of reference and with qualifications and experience satisfactory to the Association.

Sections and Description

Niger : Within three (3) months from the Effective Date, recruit non-governmental organizations or consultants for the purpose of facilitating the implementation of Part 2.2 of the Project, with terms of reference and with qualifications and experience satisfactory to the Association;

Sections and Description

Niger : Within six (6) months from the Effective Date, procure an external auditor, with terms of reference satisfactory to the Association.

Sections and Description

Niger : Within three (3) months from the Effective Date, update the terms of reference of the Project procurement specialist, financial management specialist and internal auditor in a manner acceptable to the Association;

Sections and Description

Niger : Within three (3) months from the Effective Date, set up space for physical archiving and a filing system both in a manner acceptable to the Association

Sections and Description

Niger : Within five (5) months from the Effective Date, procure and install a computerized accounting system, with technical specifications satisfactory to the Association.

Sections and Description

Togo : within three (3) months from the Effective Date,: recruit the following additional PIU staff: three technical specialists, an internal auditor, a procurement specialist, a financial management specialist and a second SEA/SH specialist, with terms of reference and with qualifications and experience satisfactory to the Association

Sections and Description

Togo : within three (3) months from the Effective Date: recruit non-governmental organizations or consultants for the purpose of facilitating the implementation of Part 2.2 of the Project, with terms of reference and with qualifications and experience satisfactory to the Association

Sections and Description

Togo : within three (3) months from the Effective Date, carry out training on procurement to the tender committee in accordance with the Procurement Regulations

Sections and Description

Togo : Within six (6) months from the Effective Date, procure an external auditor, with terms of reference satisfactory to the Association.

Sections and Description

Togo : within three (3) months from the Effective Date, update the terms of reference of the Project administration and financial manager, accountants and financial management specialist in a manner acceptable to the Association.

Sections and Description

Togo : Within five (5) months from the Effective Date, procure and install a computerized accounting system, with technical specifications satisfactory to the Association.

Sections and Description

Burkina Faso ESCP: ESCP: In view of the conflicts and insecurity situations in certain regions of the country, the Recipient shall prepare a security risk assessment (SRA) within three months after project effectiveness.

Sections and Description

Burkina Faso ESCP: The Recipient shall prepare and implement mitigation measures including a number of SEA/SH prevention and response measures to raise awareness, prevent and mitigate the risks of GBV within three months after project effectiveness

Sections and Description

Burkina Faso ESCP: The Recipient shall prepare, establish, implement, and maintain the GM, as described in the SEP to be operational not later than one month after Project effectiveness and prior to the start of project activities and maintained throughout the implementation of the project.

Sections and Description

Mali ESCP: Given the conflicts and insecurity situations in some regions of Mali, the Recipient shall prepare a security risk assessment (SRA) in the ESIA within three months after project effectiveness.

Sections and Description

Mali ESCP: Mitigation measures include a number of SEA/SH prevention and response measures to raise awareness, prevent and mitigate the risks of GBV, including, but not limited to, the development of a code of conduct for workers and the organization of training to raise awareness of SEA/SH risks be set no later than three months after project effectiveness.

Sections and Description

Mali ESCP: The Recipient shall develop a SEA/SH Mitigation and Response Action Plan to be annexed to the ESIA/ESMP and shall inform the C-ESMP no later than three months after project effectiveness.

Sections and Description

Mali ESCP: Prepare, establish, implement, and maintain the GM, as described in the SEP no later than one month after project effectiveness.

Sections and Description

Niger ESCP: In view of the conflicts and insecurity situations in the Diffa and Tillabéry regions, the Recipient shall prepare a security risk assessment (SRA) three months after the project effectiveness date for SRA but before investments for the SMP.

Sections and Description

Niger ESCP: the Recipient shall develop an SEA/SH Mitigation and Response Action Plan to be annexed to the ESIA/ESMP and shall inform the C-ESMP no later than three months after project effectiveness.

Sections and Description

Niger ESCP: The project grievance mechanism, developed as part of the SEP to be operational no later than one months after project effectiveness.

Sections and Description

Togo ESCP: The Recipient shall develop a SEA/SH Mitigation and Response Action Plan to be annexed to the ESIA/ESMP and shall inform the C-ESMP no later than three months after project effectiveness.

Sections and Description

Togo ESCP: The project grievance mechanism, developed as part of the SEP to be operational no later than one month after project effectiveness.

Conditions

Type	Financing source	Description
Effectiveness	IBRD/IDA	ECOWAS : The Recipient has adopted the Project Implementation Manual in accordance with the provisions of Section I.B.1 of Schedule 2 to the Financial Agreement.
Type	Financing source	Description
Effectiveness	IBRD/IDA	ECOWAS : The Recipient has established the Regional Steering Committee in accordance with the provisions of Section I.A.2 of Schedule 2 to the Financing Agreement.
Type	Financing source	Description
Effectiveness	IBRD/IDA	ECOWAS: The Recipient has appointed the following focal points for the PIU, with terms of reference, qualifications, and experience satisfactory to the

		Association: an environmental focal point, a social development focal point and a gender-based violence focal point
Type Effectiveness	Financing source IBRD/IDA	Description ECOWAS : The Recipient has delegated to ARAA, under terms and conditions approved by the Association, the carrying out of fiduciary aspects (procurement and financial management) of implementation of Parts 3 and 5 of the Project in accordance with the provisions of Section I.D of Schedule 2 to this Agreement.
Type Effectiveness	Financing source IBRD/IDA	Description CILSS: The Recipient has adopted the Project Implementation Manual in accordance with the provisions of Section I.B.1 of Schedule 2 to the Financing Agreement;
Type Effectiveness	Financing source IBRD/IDA	Description CILSS: The Regional Steering Committee has been established
Type Effectiveness	Financing source IBRD/IDA	Description CILSS: The Recipient has appointed the following additional staff for the PIU, with terms of reference, qualifications, and experience satisfactory to the Association: an environmental focal point, a social development focal point and a gender-based violence focal point.
Type Effectiveness	Financing source IBRD/IDA	Description CORAF: The Recipient has adopted the Project Implementation Manual in accordance with the provisions of Section I.B.1 of Schedule 2 to the Financing Agreement;
Type Effectiveness	Financing source IBRD/IDA	Description CORAF: The Regional Steering Committee has been established;

Type Effectiveness	Financing source IBRD/IDA	Description CORAF : The Recipient has appointed the following additional staff for the PIU, with terms of reference, qualifications, and experience satisfactory to the Association: an environmental focal point, a social development focal point and a gender-based violence focal point.
Type Effectiveness	Financing source IBRD/IDA	Description Burkina Faso: The Recipient has adopted the Project Implementation Manual in accordance with the provisions of Section I.B.1 of Schedule 2 to the Financing Agreement.
Type Effectiveness	Financing source IBRD/IDA	Description Burkina Faso : The Recipient has established its National Steering Committee in accordance with the provision of Section I.A.2 of Schedule 2 to the Financing Agreement;
Type Effectiveness	Financing source IBRD/IDA	Description Burkina Faso : The Regional Steering Committee has been established
Type Effectiveness	Financing source IBRD/IDA	Description Mali : The Recipient has adopted the Project Implementation Manual in accordance with the provisions of Section I.B.1 of Schedule 2 to the Financing Agreement;
Type Effectiveness	Financing source IBRD/IDA	Description Mali: The Recipient has established its National Steering Committee in accordance with the provision of Section I.A.2 of Schedule 2 to the Financing Agreement.
Type Effectiveness	Financing source IBRD/IDA	Description Mali : The Regional Steering Committee has been established

Type Effectiveness	Financing source IBRD/IDA	Description Mali : The Recipient has appointed an environment specialist focal point and a social development specialist focal point with qualifications, experience and under terms of reference satisfactory to the Association.
Type Effectiveness	Financing source IBRD/IDA	Description Niger : The Recipient has adopted the Project Implementation Manual in accordance with the provisions of Section I.B.1 of Schedule 2 to the Financing Agreement.
Type Effectiveness	Financing source IBRD/IDA	Description Niger : The Recipient has established its National Steering Committee in accordance with the provision of Section I.A.2 of Schedule 2 to the Financing Agreement;
Type Effectiveness	Financing source IBRD/IDA	Description Niger : The Regional Steering Committee has been established.
Type Effectiveness	Financing source IBRD/IDA	Description Niger : The Recipient has appointed the following staff with qualifications, experience and under terms of reference satisfactory to the Association: an environmental specialist and a social development specialist.
Type Effectiveness	Financing source IBRD/IDA	Description Togo: The Recipient has adopted the Project Implementation Manual in accordance with the provisions of Section I.B.1 of Schedule 2 to the Financing Agreement.
Type Effectiveness	Financing source IBRD/IDA	Description Togo: The Recipient has established its National

		Steering Committee in accordance with the provision of Section I.A.2 of Schedule 2 to the Financing Agreement.
Type Effectiveness	Financing source IBRD/IDA	Description Togo : The Regional Steering Committee has been established.
Type Effectiveness	Financing source IBRD/IDA	Description Togo : The Recipient has appointed the following additional staff with qualifications, experience and under terms of reference satisfactory to the Association: an environmental specialist, an SEA/SH specialist and a social development specialist.

I. STRATEGIC CONTEXT

A. Regional, Sectoral, and Institutional Context

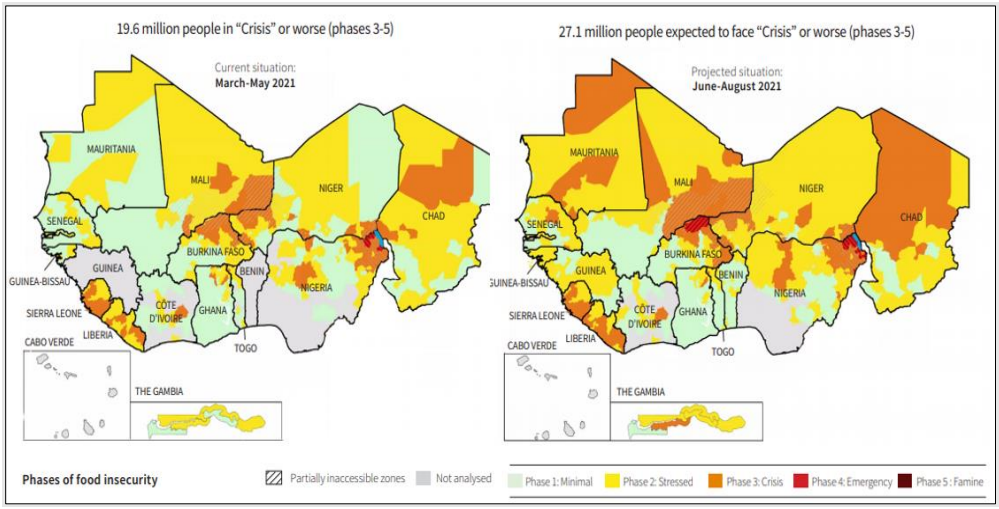
1. West Africa is one of the world's most vulnerable regions due to its climatic, institutional, livelihood, economic, and environmental context.[1] This region is home to more than 360 million inhabitants, of whom 55 percent live in rural areas and depend on natural resources for their socio-economic development. Approximately 43 percent of West Africans live below the international poverty line,[2] and most countries in the region are clustered at the very bottom of the human development rankings.[3] Agriculture contributes 29 percent of the region's gross domestic product (GDP) and is the principal livelihood for more than 60 percent of West Africans. Because the region is highly exposed to major climate, agricultural, and market risks, the performance of agriculture has historically been volatile, unleashing more frequent and worsening food crises.

2. Perpetual "shock-recovery-shock" cycles have become the norm across the region and seriously threaten its sustainable development. Multiple shocks, largely induced by agricultural risks, have been costly for human welfare, making food scarcer and more expensive and raising malnutrition. In 2020, approximately 16.7 million West Africans needed immediate food assistance due to a not atypical combination of drought, poverty, high cereal prices, environmental degradation, displacement, poor trade integration, and conflict. The number of acutely food-insecure people is currently 40 percent higher than the already appalling five-year average of 12 million and have been projected to increase to 27.1 million people during the lean season of June–August 2021, a record high (Figure 1). Faced with the sudden onset of a food security crisis, countries generally seek international support to finance a response which is only insufficiently provided.[4]

3. Vulnerability has spread throughout the region as food system[5] **productivity has grown more slowly than the population, leading to a reduction in per capita food availability.** The population is growing at close to 3 percent per annum and is projected to double to approximately 800 million people by 2050. While agriculture productivity grew quickly during the mid-1980s to 2010 and the supply of locally produced food increased from 1,700 to 2,400 kilocalories per person per day, agricultural productivity growth has slowed to an average of 2 percent in recent years. Yield gaps between West Africa and other regions remain large.[6] As a result, the number of undernourished people in 16 Western African countries[7] increased from 37 million (12.1 percent of the population) in 2010 to 59.4 million people (15.2 percent) in 2019.[8]

[1] For the purpose of this document, West Africa includes Benin, Burkina Faso, Cabo Verde, Chad, Côte d'Ivoire, The Gambia, Ghana, Guinea, Guinea Bissau, Liberia, Mali, Mauritania, Niger, Nigeria, Senegal, Sierra Leone, and Togo.
[2] Poverty incidence is 43.7 percent in Burkina Faso, 49.7 percent in Mali, and 44.5 percent in Niger (poverty headcount at US$1.9 a day (2011 PPP).
[3] Burkina Faso, Chad, Mali, and Niger rank 182, 187, 184, and 189 respectively out of a total of 189 countries.
[4] Every year, for example, Burkina Faso, Chad, Mali, and Niger request an average of US$1 billion (1.9 percent of the region GDP) in humanitarian aid (mainly food aid), of which only US$360 million (36 percent) is supplied on average.
[5] Food systems encompass the entire range of actors and their interlinked value-adding activities involved in the production, aggregation, processing, distribution, consumption and disposal of food products that originate from agriculture, forestry, or fisheries, and parts of the broader economic, societal, and natural environments in which they are embedded. See FAO (2018), "Sustainable Food Systems: Concept and Framework." Brief. Rome. http://www.fao.org/3/ca2079en/CA2079EN.pdf.
[6] For example, cereal yields in West Africa average between 1 and 2 MT/ha compared with 7 and 9 MT/ha for wheat and maize in Western Europe. OECD/SWAC 2013
[7] Benin, Burkina Faso, Cabo Verde, Côte d'Ivoire, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Mauritania, Niger, Nigeria, Senegal, Sierra Leone and Togo.
[8] FAO, IFAD, UNICEF, WFP and WHO, 2020. The State of Food Security and Nutrition in the World 2020.

Figure 1: Sahel and West Africa food and nutrition situation[9]



4. Multiple interacting factors are responsible for West Africa's worsening per capita calorie availability and deepening food insecurity.

(a) **Climate change and variability is reducing crop yields and livestock productivity.** The impacts of more frequent extreme weather events such as droughts and floods are felt across the region. In the medium term, regional climate models consistently predict fewer days of rainfall and shorter wet spells over 70 percent of the region, coupled with a higher intensity of rainfall on wet days.[10] The availability of water for food production and other uses is projected to decrease, and competition for resources between different population groups may intensify. The Intergovernmental Panel on Climate Change (IPCC) (2014) projects that crop growing periods will shrink on average by 20 percent by 2050 in the absence of climate change adaptation, leading to a 40 percent drop in cereal yields. These losses will be accompanied by expansion of arid and semiarid agro-ecologies caused by longer and more frequent dry spells[11] and slightly reduced overall precipitation. Climate change already affects pest and disease vectors that harm crops and animals, as demonstrated by the higher probability of major locust outbreaks such as in the Horn of Africa in 2020 (IPCC 2019).

(b) **The natural resource base (water, land, and vegetation) needed for food production is deteriorating rapidly as agriculture expands across landscapes[12] with little attention to sustainability.** Land cover has changed significantly over the last fifty years. Villages and cities cover today 140 percent of the area they occupied in 1975. While the area covered by crops doubled between 1975 and 2013, vast areas of forest, savanna, and woodland were lost or fragmented. More than one-third of the region's dense forest cover has been cleared since 1975 for farms and settlements. In savanna and steppe landscapes, bare sandy areas increased by 47 percent as drought and unsustainable land-use practices degraded vegetative cover. Soil erosion is widespread in the region, mainly caused by recurring droughts, deforestation, and

[9] Source: *Cadre Harmonisé* analyses, regional concertation, Ouagadougou, Burkina Faso, March 2021. Food Crisis Prevention Network (RPCA), map produced by CILSS/AGRHYMET *www.food-security.net*
[10] Dosio et al., 2019.
[11] Ukkola et al. (2020).
[12] Landscapes are social-ecological systems that consist of a mosaic of natural and/or human-modified ecosystems, often with a characteristic configuration of topography, vegetation, land use, and settlements that is influenced by the ecological, historical, economic, and cultural processes and activities of the area.

unsustainable agricultural practices such as intensive tillage. As the growing population has impelling changes in land-use practices (shorter fallow periods, greater use of firewood, and so on), erosion and soil infertility are expected to further accelerate.

(c) **The increased incidence of conflict and fragility in West Africa interacts with the food insecurity challenge in manifold and complex ways**. The past five years have been the most violent on record in West Africa, with over 12,000 conflict events and 50,000 fatalities, largely as a result of metastasizing conflict in the central Sahel and the Lake Chad region.[13] These include a broad range of actors, such as extremist groups linked to Al Qaida in the Sahel and in the northern zones as well as Boko Haram in the eastern and southern zones. Many conflicts occur in rural areas and target agricultural assets (infrastructure, ground and surface water, crops, livestock), so the economic impacts on the agricultural sector, particularly on women farmers and women herders, are disproportionately large.[14] Security responses to conflict often restrict movement, preventing farmers from accessing farmland and rangeland and from using traditional mechanisms to cope with climate variability, such as seasonal and circular migration and inter-state border crossings. The security crisis continues to generate large flows of internally displaced people without livelihoods, including 1 million in Burkina Faso[15] making it the world's fastest-growing displacement crisis with a 20-fold increase in number of displaced people.[16] The 2019 World Bank Sahel Regional Risk and Resilience Assessment highlighted climate change as a key exacerbating factor, heightening risk factors associated with marginalization and exclusion of communities from access to basic services, justice and state representation at the local level. Together, these trends pose significant risk to human security. Moreover, in a context of rising armed conflict—itself linked to competition over natural resources - it could well contribute to rising levels of violence by, inter alia, increasing poverty, disrupting informal mechanisms that govern the sharing of scarce resources, and fueling grievances against governments and other groups.

(d) **The region's poorly integrated food markets cannot accommodate large yearly fluctuations in food crop production by directing surplus food to areas with shortages.** Commodities imported from outside the region account for about 80–90 percent of all food traded by volume in West Africa, with intraregional trade stagnating for several decades at 10–20 percent.[17] Most intraregional food trade is informal and unrecorded constraining regional value chain integration. Intraregional trade is hindered by limits on the free movement of goods posed by high transaction costs as well as physical, infrastructural, and political barriers.[18] As a result, food markets are fragmented. They cannot accommodate the large variations in local food production that occur from one year to the next by distributing food from surplus to deficit areas across the region. Localized food shortages and price volatility are common, while farmgate prices remain low. Imported food is often more competitive than domestic production and food imports placing severe strain on the region's balance of payments and foreign exchange reserves.[19] Import dependencies also

[13] OECD, 2020. The Geography of Conflict in North and West Africa.
[14] FAO and IFPRI, 2017, Conflict, migration and food security: The role of agriculture and rural development.
[15] OECD/SWAC, 2020, Sahel and West Africa: Food and Nutrition Situation 2020/21.
[16] The number of displaced people increased from 50,000 in January 2018 to over 1 million by October 2020.
[17] UNCTAD 2020.
[18] Poor infrastructure and governance of the transport sector has led to high costs of moving goods by road or rail within West Africa. Buyers at farmgate face high transaction costs for bulking and transporting of produce to urban markets, especially perishable products (fruits, vegetables, and animal products) (FAO 2015). Additional barriers to trade are tariffs, import and export restrictions via bans or quotas in many West African countries (World Bank 2015).
[19] For instance, West Africa has become one of the largest importers of rice in the world, accounting for about 40 percent of its consumption needs and 18 percent of global imports. In 2014, the rice import bill of ECOWAS countries amounted to about US$5 billion (Grow Africa and AGRA, 2018)

expose West African countries to the volatility of international cereal markets, as seen early in the COVID-19 pandemic.[20]

5. Rising public funding for agriculture has not sustainably raised yields, as large shares of public funds are spent on ineffective fertilizer subsidies instead of public goods such as agricultural research. A large share of agriculture-specific expenditure is used for input subsidies.[21] While subsidies are popular among policymakers, their effectiveness in sustainably raising agricultural productivity and reducing poverty is limited for agronomic reasons and because of large inefficiencies in implementing support schemes.[22] Higher returns to poverty alleviation and greater resilience[23] to climate change could result from a shift in spending to agricultural research and development (R&D) and improved extension services. Over the last decade, agricultural R&D spending across West Africa as a share of agricultural GDP has declined from 0.53 percent to 0.33 percent, falling far short of the New Partnership for African Development (NEPAD) target of 1 percent and considerably below levels seen in other Sub-Saharan Africa (SSA) subregions.[24]

6. The COVID-19 pandemic is putting further strain on the food system, threatening to increase malnutrition and food insecurity among vulnerable populations. Confirmed COVID-19 cases have remained low in West Africa compared to other regions, and food supply disruptions have remained limited. Even so, the pandemic has induced health and economic crises that reduce access to food—for example, by increasing unemployment and reducing purchasing power—particularly among the urban poor.[25] The economy of SSA is projected to decline by 3.3 percent in 2020, plunging the region into its first economic recession in 25 years. Fragile countries are expected to experience a stronger decline in growth as COVID-19 exacerbates the drivers of fragility. The number of people living in poverty in SSA is expected to increase significantly, by up to 40 million additional people,[26] which will negatively affect food security in the short- and long-term.

7. Major inequalities persist between women and men in terms of access to resources that can improve their living conditions through agriculture—particularly access to land and equipment, credit, markets, and advisory and support services. Over the past 15 years, women have assumed a growing share of responsibility for agriculture as men and young people have joined the rural exodus. This trend is changing traditional gender roles as women become increasingly involved in farm management, but several factors continue to undermine women's participation in the economy, including insufficient access to productive resources; low human capital (inadequate technical education); limited access to markets; a legal framework that renders women dependent on their spouses to access modern financial services; and substantial contributions to the reproductive sphere of their households.

8. The acceleration of regional trends related to climate change, population growth, urbanization, consumption behaviors, conflict and technological advances have created new challenges and opportunities, reaffirming the need for long-term structural investments. The importance of taking a food system perspective, which embraces multiple outcomes, sector contributions, and value chain functions, is increasingly recognized.

[20] The spike in international rice prices in the first half of 2020, when Asian countries restricted exports out of fear that the pandemic would lead to a supply shortfall, illustrates the international market risk to which West African countries remain exposed.
[21] Estimates suggest that Nigeria, Senegal, Ghana, Burkina Faso, and Mali spend US$425 million per annum on input subsidies, excluding province-level subsidies (Goyal and Nash 2016).
[22] Including weak fertilizer responses due to low soil organic matter, suboptimal agronomic practices, pest and disease infestations, and inadequate formulations of subsidized fertilizer (Tittonell and Giller 2013; USAID 2019).
[23] FSRP uses the definition of resilience adopted by the Global Alliance for Resilience Initiative - Sahel and West Africa (AGIR): The capacity of vulnerable households, families, communities, and systems to face uncertainty and the risk of shocks, to withstand and respond effectively to shocks, as well as to recover and adapt in a sustainable manner.
[24] Stads and Beintema (2017).
[25] RPCA (2020).
[26] World Bank (2020), "The World Bank in Africa." *https://www.worldbank.org/en/region/afr*.

Based on a long history of successful collaboration, the international community, West African governments, regional institutions, and food system stakeholders share the understanding that systematically addressing the above-mentioned trends requires strong collective action anchored at the regional level.

9. The food security challenges should not be overshadowed by demographic, migration, and security concerns on the regional agenda. Rather, food security should be considered a first step on the pathway toward solutions. The 2019 Kigali African Food Security Leadership Dialogue (AFSLD) brought together African leaders and development partners to address the African food security challenges. They reconfirmed earlier commitments to agriculture and food security (African Union (AU) Vision 2063, Malabo Declaration). In addition to strategic decisions at technical, institutional, and policy levels, the World Bank and other development partners pledged to expand support to climate-smart policies and programs for food security and resilience.

10. Regional food system functions and governance in West Africa are provided by the following regional organizations (ROs):

(a) **The Economic Community of West African States (ECOWAS)** is the region's principal political organization and aims to promote economic cooperation among member states. As such, it holds the political mandate for trade policy and integration and defines the principles and objectives related to the agriculture sector. The **Regional Agency for Agriculture and Food (ARAA)** is ECOWAS' implementing agency which manages the ECOWAS Regional Food Security Reserve, a system of physical and financial strategic grain reserves operating at the local, national, and regional levels.

(b) **The Permanent Interstate Committee on Drought Control in the Sahel (CILSS)** supports member countries in drought management and agricultural development, including through: (a) the **Regional Training and Application Center for Agrometeorology and Hydrometeorology (*Centre Régional de Formation et d'Application en Agrométéorologie et Hydrologie Opérationnelle,* AGRHYMET)**; (b) the **Sahel Institute (Institut du Sahel, INSAH),** which provides technical leadership on agro-socio-economic development and regional pest and disease management; and (c) the **Food Crisis Prevention Network** (*Réseau de Prévention des Crises Alimentaires*, **RPCA**), which monitors the region's food and nutrition situation and informs decision making, making use of the *Cadre Harmonisé* (a unifying framework and tool to assess food and nutrition prospects).

(c) **The West and Central Africa Council for Agriculture Research and Development (CORAF)** coordinates the network of national and regional research organizations, including Regional Centers of Excellence (RCoE) and National Centers of Specialization (NCoS) established under the West Africa Agricultural Productivity Program (WAAPP), with the objective to enhance prosperity, food and nutrition security in West Africa.

11. The ECOWAS Common Agricultural Policy (ECOWAP), with its 2025 Strategic Policy Framework (SPF), set the regional agenda and manifests West African leaders' commitment to end hunger in the region. ECOWAS launched the West Africa Zero Hunger Initiative in February 2014, aiming to reduce hunger and malnutrition and to advance the right to food. ECOWAP aims to contribute to the satisfaction of food needs of the people, economic and social development, and the reduction of poverty, as well as to reduce inequalities. The 2025 SPF is aligned with the Comprehensive Africa Agriculture Development Program (CAADP), provides a comprehensive regional vision for the sector, sets objectives for its implementation, and contains a results framework for monitoring. The 2030 SPF (to be completed by 2024), builds on the 2025 SPF and includes a financing framework to mobilize additional ECOWAS and member country funding and ensure policy continuity.

12. Doing business differently to enhance food system resilience in West Africa will be necessary to address risks. Risks are inherent, ubiquitous, and varied in West African agriculture, perhaps more so than in

any other area of economic endeavor. The prevalence of multiple agricultural risks, their complexity, and the failure to address them preventively in an integrated way is endangering the sustainability of agricultural initiatives and remains a major impediment to the development of the sector. Broad regional stakeholder consultations[27] have confirmed this assessment, coalescing around three conclusions:

(a) **The perpetual climate, agricultural, market, and political risks affecting the region's food systems, especially in the Sahel, require long-term structural solutions to improve resilience.** Implementing a comprehensive regional strategy to manage food system risks will require sustained and substantial financial investments and policy reforms to shift the focus from a short-term crisis response mode to long-term risk management coordinated at the regional level. Such a strategy would align disparate donor investments and interventions to meet the core challenges of climate change, low agricultural productivity, accelerated land degradation, and limited food trade between surplus and deficit areas.

(b) **The region needs to move towards an integrated climate-smart agriculture (CSA) approach at the landscape level to manage competing demands for land, water, and other natural resources**. Traditional sectoral approaches to agricultural productivity, water, and land management never systematically adopted an integrated ecosystem development vision. This failure has contributed to the disruption or even collapse of functional ecosystems, with a loss of ecosystem goods and services, and it explains why traditional approaches are ill prepared to meet the challenges of land degradation, biodiversity conservation, and food production. The complex linkages among the different components of natural capital can be managed only through integrated approaches applied at the level of the landscape—the space connecting everything that sustains rural communities and their agro-ecosystems. In the context of a changing climate, a landscape view of productive activities and natural resources will also lead to better risk management. Opportunities for income diversification and risk pooling between the different stakeholders become more visible, feasible, and likely to lead to the triple win of increased productivity, climate adaptation, and climate mitigation.

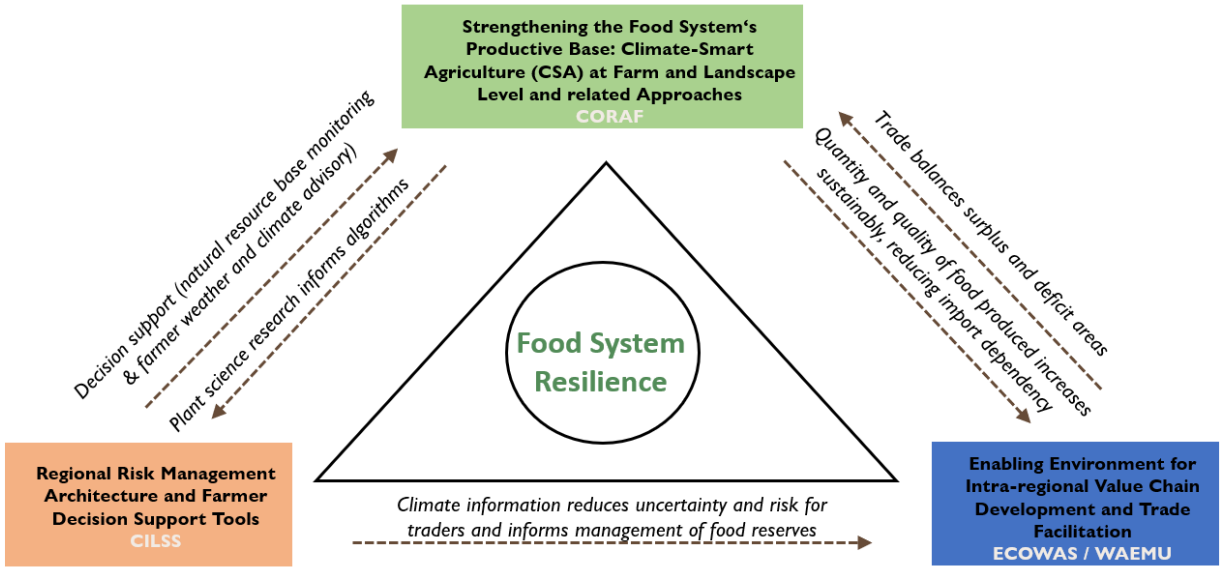
(c) **Food crisis prevention and management are optimally implemented at a regional level to mitigate, diversify, and transfer production risks and allow for economies of scale.** First, as agriculture relies on regionally shared natural resources, cross-border coordination is essential for reversing resource degradation. Most land and water degradation and their impacts—water scarcity, floods, droughts, soil fertility loss, erosion, and sedimentation—occur in transboundary valleys and watersheds and cannot be addressed effectively without coordinated interventions between upstream and downstream riparian countries. Second, the supply-side challenges of climate change are manifested in agro-ecosystems, which are not circumscribed by national borders. Third, the promotion of interregional trade allows food to better flow from surplus to food deficit areas balancing fluctuations in national production while creating opportunities for economies of scale. Forth, returns to R&D increase with scale, but financial and human resources in individual countries are extremely limited. Finally, regional cross-border collaboration to provide hydrometeorological (hydromet) and early warning information to farmers and pastoralists generates positive spillovers, as countries with less capacity learn from leaders to build effective climate hazard and flood/drought forecasting capacity and advisory services.

13. Based on this consensus, three mutually reinforcing areas of intervention have emerged as priorities for enhancing food system resilience in West Africa. Embodying perspectives from the 2019 Africa Strategy ("Building Resilience to Climate Change in Africa's Food Security") and insights from Under the Palaver Tree (a

[27] Among others, the ministerial conference held in June 2020 and an interactive virtual "Under the palaver tree" conference with 400 stakeholders organized in July 2020 by ECOWAS.

conference convened in July 2020), the three intervention areas are: (i) sustaining the productive base of the food system by investing in CSA at the farm and landscape level; (ii) promoting an enabling environment for intraregional value chain development and trade; and (iii) building regional capacity to manage agricultural risk. Figure 2 illustrates how these three priority areas are interconnected and mutually reinforcing in achieving food system resilience.

Figure 2: Intervention areas to achieve food system resilience



B. Relevance to Higher Level Objectives

14. Investments in the resilience of West African food systems will advance two key World Bank commitments in the region: the Great Green Wall Initiative (GGWI) and the Next Generation Africa Climate Business Plan (ACBP). The World Bank is supporting GGWI with investments totaling US$5 billion to restore 100 million hectares (ha) of degraded land and create 10 million green jobs. The World Bank's ACBP commitments support 20 countries to implement climate-smart policies and programs designed to scale up integrated landscape approaches on 60 million hectares, provide 150 million people with access to impact-based warnings, and facilitate adoption of CSA by 28 million farmers**.**

15. Food System Resilience Program (FSRP) aligns strongly with key World Bank strategies, including the Africa Regional Integration and Cooperation Strategy Update (2021–2023, Report No 154458-AFR). Program interventions will support Pillar 2 (Competitiveness, trade and market development) and Pillar 4 (Resilience to shocks) of the regional strategy. Program interventions will also contribute to the World Bank Group (WBG) Strategy for Fragility, Conflict and Violence (FCV) (2020–2025), particularly Pillar 1 (Prevention) and Pillar 3 (Transition out of fragility). The program's approach is fully aligned with the World Bank's Country Partnership Frameworks (CPFs) for participating countries.

16. On the Borrower side, the FSRP approach contributes to the implementation of the ECOWAP SPF and aligns with other key strategies. It aligns with SPF Strategic Pillars 1–4 and directly responds to the related results indicators. At the continental level, food system resilience is a key priority of the Africa Food Security Leadership Dialogue led by the AU and supports the AU Vision 2063. The FSRP approach also aligns with relevant sub-sectoral strategies such as the Forum for Agricultural Research in Africa (FARA) (in particular its regional

branch, CORAF)[28] and the CILSS regional programs and partnerships. Finally, FSRP objectives support the emerging priority areas of the African position for the 2021 United Nations (UN) Food Systems Summit.

C. Multiphase Programmatic Approach

Rationale for Using the Multiphase Programmatic Approach

17. Given the need for region-wide, structural solutions to strengthen food system resilience in West Africa, the Multiphase Programmatic Approach (MPA) is selected for FSRP.

(a) **The MPA offers the ability to gradually increase country coverage of critical regional food system mechanisms.** Coverage extending to a critical mass of countries in the region is essential for the viability of regional food system mechanisms such as the food crisis early warning system, pest and disease monitoring across borders (locusts, for example), ECOWAS regulation for intra- and extra-regional trade, and efficient management of the Regional Food Security Reserve. The phased structure of the MPA will account for divergent levels of readiness and capacity in participating countries. As participation increases, greater regional integration and economies of scale will arise.

(b) **The medium-term horizon of the MPA will help to generate buy-in for structural approaches and to accumulate institutional capacity and capital.** Past studies consistently indicate that regional institutions have a key role in performing vital regional food system functions.[20] To play that role and meet the challenges that lie ahead, regional institutions—specifically ECOWAS, CILSS, and CORAF—must enhance their business models, make strategic investments (in digitalization, for instance) to expand their capacity, and successfully transition toward financial sustainability. Earlier project-centric approaches of development partners led to fluctuating institutional capacity and limited institutional capital accumulation. The MPA provides the continuity required to build sustained regional capacity.

(c) **The MPA supports a programmatic platform of sufficient duration and flexibility to attract a coalition of partners and reduce the risks of fragmentation and duplication in a crowded field**. It also offers the flexibility to expand opportunities for coordination, partnership, and bundling of resources with bilateral and multilateral development partners. To date, the FSRP MPA has been instrumental in (i) securing confirmed contributions from the Global Agriculture and Food Security Program (GAFSP); (ii) securing financing of US$22 million equivalent by the Kingdom of the Netherlands provided through a Trust Fund (TF) to be established end of December 2021 to support regional-level activities; (iii) initiating discussions with the Global Risk Financing Facility (GRIF) for a potential funding to support the risk management of the Regional Food Reserve; and (iv) aligning parallel financing from the Bill and Melinda Gates Foundation for the West Africa Rice Observatory.

(d) **Alternative instruments, such as standalone Investment Project Financing (IPF), Program-for-Results (PforR) Financing, or a series of projects, are less likely to be effective.** With less ability to provide a comprehensive roadmap from the start and less flexibility to accommodate countries as they become ready to participate, other project formats would reduce the likelihood of achieving coverage of a critical mass of West African countries. With a weaker signal of lasting commitment from regional partners and the World Bank, regional partners would be less likely to align structurally, and development partners to align programmatically. The reduced flexibility of other project instruments would also significantly reduce success in attracting co-financing.

[28] CORAF, Association for Strengthening Agricultural Research in Eastern and Central Africa (ASARECA), the Centre for Coordination of Agricultural Research and Development for Southern Africa (CCARDESA).

Program Development Objective with Key Indicators

18. The Program Development Objective (PrDO) is to increase preparedness against food insecurity and improve the resilience[29] of food systems[30] in participating countries.

19. The PrDO aims to contribute to achieve the program's higher-level objective of reducing the number of food insecure people in West Africa. The evolution of this key metric has seen a worsening trend over time driven by structural challenges and also exhibits strong year-on-year volatility driven by unpredictable climate and conflict events beyond the program's control. Through its PrDO, FSRP aims to tackle the underlying structural challenges and reduce beneficiaries' sensitivity to these volatile *force majeure events.* To enable attribution of the program's impact in this context, a rigorous impact evaluation (IE) will be put in place deploying experimental and quasi-experimental methods to identify FSRP's impact on its higher-level objective.

20. The PrDO-level outcome indicators are as follows:

Table 1: PrDO-level indicators with baseline and end targets for Phase I

Indicator	Baseline	End target
Program beneficiaries (number and percentage of female beneficiaries)	0	2,300,000 (40%)
Reduction of food insecure people in program targeted areas (percentage)	TBD	25%
Food system actors accessing hydro and agrometeorological advisory services (number and percentage of female beneficiaries)	0	500,000 (40%)
Producers adopting climate-smart agricultural technologies and services (number and percentage of female beneficiaries)	0	1,295,000 (40%)
Surface area under integrated landscape management (ILM) practices (hectare (ha))	0	102,300
Share of intra-regionally traded production in selected value chains (percentage)	20	30

21. It is estimated that FSRP will reach 4 million direct beneficiaries, of which 2.3 million are estimated to be reached in Phase I and 1.7 million in Phase II.

Program Theory of Change (ToC)

22. The ToC, shown in Figure 3, relies on three critical assumptions:

(a) **Landscape and CSA interventions can keep the risk/return profile attractive for private investment.** Improved natural resource management and the deployment of CSA technologies reduce agriculture's sensitivity to climate impacts, overall vulnerability to shocks, and production risks overall. As a result, agricultural production retains potential to be competitive and remains attractive to investors despite more challenging climatic conditions (principally variability and extreme heat).

(b) **Recovery from COVID-19 progresses and the macroeconomic environment remains stable.** The pandemic is expected to continue over the course of 2021 and into 2022 as a new normal emerges and allows economic activity to resume. The ToC could be at risk if the pandemic causes contact and mobility restrictions to continue or be renewed. This risk could be mitigated by exploring how to restructure activities and shift resources toward crisis management and recovery. The macroeconomic environment

[29] **Resilience** is the capacity of vulnerable households, families, communities, and systems to face uncertainty and the risk of shocks, to withstand and respond effectively to shocks, and to recover and adapt in a sustainable manner. **Shocks** may be driven by climate change, markets, environmental degradation, conflict, or a health crisis to which the food system is exposed. The resilience booster tool was employed to systematically identify and embed the most relevant climate resilience attributes (robustness, connectedness, and others) into the program design.

[30] **Food systems** encompass the entire range of actors and their interlinked value-adding activities involved in the production, aggregation, processing, distribution, consumption, and disposal of food products that originate from agriculture, forestry, or fisheries and parts of the broader economic, societal, and natural environments in which they are embedded. **Food system actors** are all agents participating in the food system.

and growth have been robust in West Africa over the past decade, and with recovery from the pandemic, this trend is expected to resume. The ToC will be at risk if growth slows—for example, as a result of conflict or another shock (such as a commodity price shock) that destabilizes the macroenvironment. This risk could be mitigated by restructuring to emphasize activities that are less reliant on a favorable macroeconomic environment (landscape and food crisis management).

(c) **Regional and national political stability continues.** Despite increased conflict, the region has largely remained politically stable, and this trend is expected to continue. The ToC will be at risk if certain recent events such as the attempted coups in Niger and Mali lead to broader destabilization. This risk could be mitigated by halting implementation if severe instability occurs and resuming operations at a later stage. Uncertainty will also be minimized by according flexibility in resource allocation across components and geographic locations, and by adopting a risk-based approach that will enable the proposed project to expand its implementation to new areas as security and political conditions allow.

Program Framework

23. The MPA will be implemented in multiple phases that will reflect Borrower needs and readiness. The phased structure enables the program in its first phase to respond to the food security crisis and, build readiness for countries to join in subsequent simultaneous phase(s).

24. The selection of participating countries and their sequencing is based on the following four criteria:

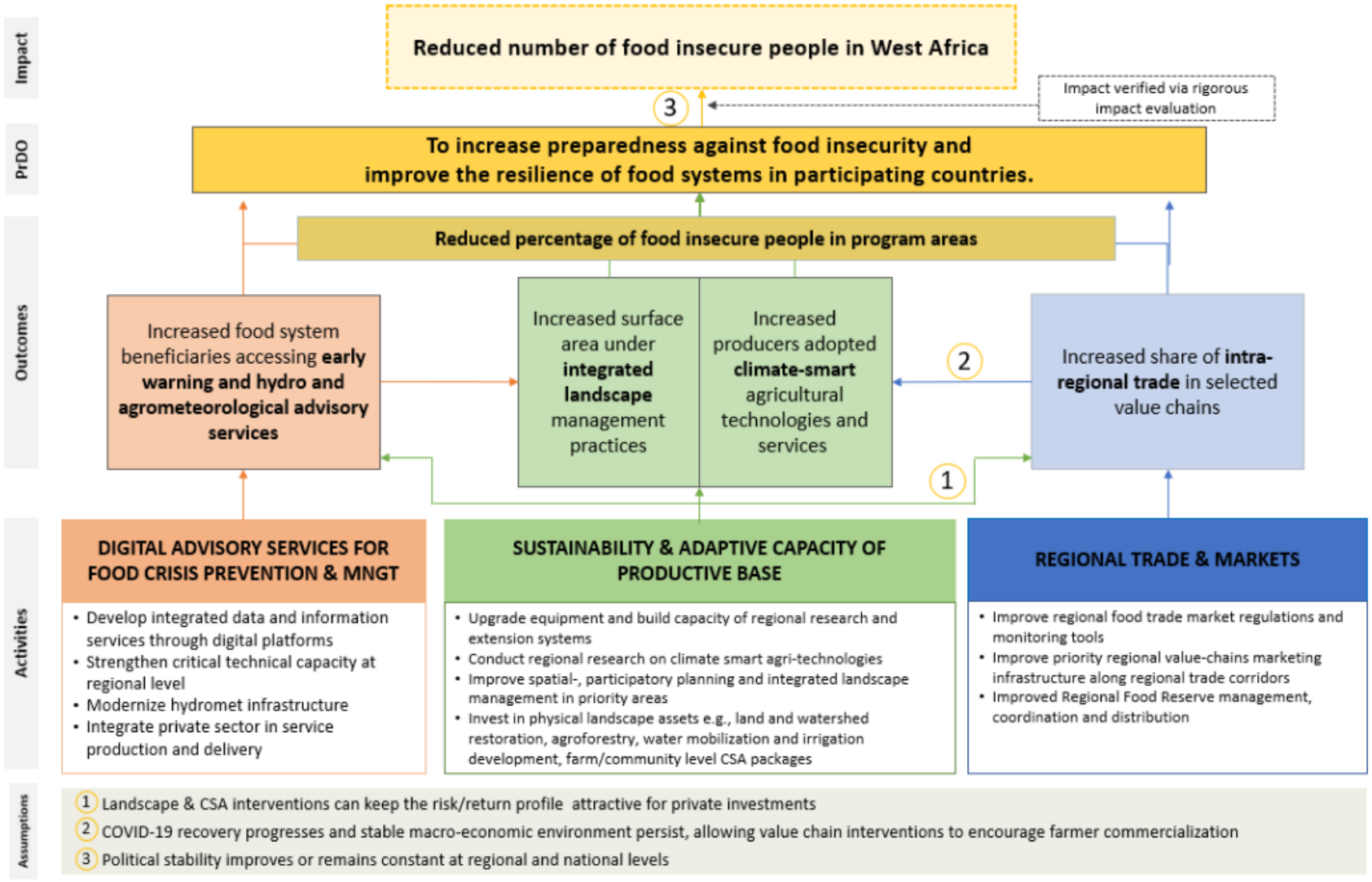
(a) **Urgency.** FSRP responds to the immediate imperative to support countries that face food security crisis.

(b) **Leveraging geographical diversity and complementarity.** FSRP includes Sahelian and coastal countries in each phase, in order to leverage regional complementarities of the agroecological zones. Lessons learned from integrating each type of country into FSRP will be valuable for subsequent phases. For example, proven approaches for accelerating food trade along corridors to hub countries will facilitate similar undertakings for Phase II countries.

(c) **Readiness.** FSRP supports countries that are involved in regional food system mechanisms. The principal determinant of readiness is the extent of a country's integration in mechanisms, including (i) the *Cadre Harmonisé* early warning system for regional food crises and the national data-gathering and management capacity; (ii) the regional research system; and (iii) the ECOWAS Regional Food Security Reserve. Countries with the highest readiness join the program in Phase I.

(d) **Operational capacity and complementarity with other projects.** The operational capacity of existing Project Implementation Units (PIUs), as well as the possibility to achieve complementarity with other World Bank projects has been taken into account in the program phasing (see Annex 12 regarding the latter).

Figure 3: Theory of Change of the West Africa FSRP



25. The horizontal MPA consists of two simultaneous phases and has an anticipated total duration of 6 years. The rationale of country sequencing is described in the following:

(a) **Phase I includes the three regional organizations ECOWAS, CILSS and CORAF as well as three Sahelian countries with high prevalence of food insecurity in transboundary areas (Burkina Faso, Mali, Niger) and one costal country (Togo) which is emerging as a trade hub in West Africa.** This arrangement will support food trade dynamics between surplus coastal zones and Sahelian deficit zones. All phase I countries are members of ECOWAS, CILSS and CORAF and are well integrated in regional food system mechanisms (use of *Cadre Harmonisé* in all countries; high performance of regional research centers (especially in Mali and Niger); well-developed national reserves and close integration in the Regional Reserve (which benefitted Burkina Faso and Niger (2018 and 2020) and Mali once (2020)). All Phase I countries have proven capacity to implement projects in the sectors pertaining to FSRP, as summarized in Annex 13, and create complementarity with ongoing World Bank projects, as described in Annex 12.

(b) **In Phase II, two additional countries with high prevalence of food insecurity (Chad and Sierra Leone) will join the program as well as another trade hub in the region (Ghana).** With Chad, another Sahelian country with high food insecurity in a transboundary area, the Lake Chad Basin, will become part of FSRP, seeking complementarities with program activities in Niger (Phase I). Sierra Leone will be the first FSRP coastal country with high food insecurity which is why it will join the program despite not having common borders with Phase I countries. Ghana, on the other hand, will be the second trade hub connected via the Trans-Coastal Highway complementing Togo's FSRP interventions. All Phase II countries are integrated in the regional food system mechanism, though to a lesser extent than the Phase I countries. Chad, Ghana and Sierra Leone have already completed the technical program preparation enabling them to join FSRP as soon as Phase I becomes effective.

26. The MPA may receive additional financing for a third phase. Several countries have already indicated interest in joining FSRP in medium term. A third phase might be initiated if the interest of countries, their readiness and operational capacity (including IDA availability) is confirmed.

Table 2: Overview of the MPA West African FSRP Framework

Phase	Project ID	Sequential or simultaneous	Proposed DO for phase†	IPF, DPF, or PforR	Estimated IBRD amount (US$ million)	Estimated IDA Amount (US$ million)	Estimated other amount (US$ million)	Estimated approval date	Estimated env. and social risk rating
I	*P172769* Burkina Faso, Mali, Niger, and Togo; CILSS, CORAF, ECOWAS – FY22	Simultaneous	To increase preparedness against food insecurity and improve the resilience of food systems in participating countries	IPF	0	330.0	71.0	November 18, 2021	S
II	*P178132* Chad, Ghana, Sierra Leone – FY22/23			IPF	0	240.0	0	FY22/23	S
Total	**Board Approved Financing Envelope**				**570.0**		**71.0**		

Learning Agenda

27. Learning is an integral part of FSRP and is generated and disseminated through five mechanisms. The learning process will be supported through the accompanying regional programmatic Advisory Services and Analytics (ASA) Food System Resilience Facility (FSRF, EFO, P172941) funded by the Kingdom of the Netherlands and will be led by ECOWAS in coordination with CILSS and CORAF.

(a) **Analytical studies inform the program preparation and implementation with policy and strategy notes developed on topics highly relevant for FSRP.** The interventions proposed under FSRP build on extensive previous experience and academic literature as well as on tailored, demand-based knowledge products developed under FSRF including on: (i) Preparedness - Integration of risk financing instruments into food crisis preparedness and response mechanisms such as the Regional Food Security Reserve; (ii) Digital information services - Public-private partnership models for effective delivery of climate and early warning information; (iii) Landscapes - Effective approaches for the implementation of landscape level approaches governed by multiple administrative units in conflict settings; and (iv) Value Chains - Improved data collection for trade monitoring, particularly informal trade. Knowledge generated under FSRF has been and will be used to further enhance operational approaches throughout the implementation of all phases.

(b) **Capacity building will be provided to the regional organizations to overcome operational and technical capacity building gaps.** A capacity needs assessment of CILSS, CORAF, and ECOWAS in February 2021 and subsequent workshops with the three organizations identified operational and technical capacity building needs (see Annexes 5-7 for details). Capacity building plans for each regional organization will be developed under FSRF outlining priorities and detailed activities to strengthen the capacity of each organization. There will be a particular emphasis placed on capacity building to undertake project monitoring and evaluation (M&E) and impact assessments. To the extent possible, learning is organized on a cross-organizational basis.

(c) **Region-wide learning events will be organized to disseminate and mainstream knowledge in response to needs voiced by Borrowers.** The three regional organizations as well as the participating countries have underlined the necessity to strengthen multi-stakeholder learning exchanges.

(d) **IE will be conducted in order to refine delivery mechanisms.** A rigorous IE will accompany FSRP roll-out and generate valuable data on beneficiaries' progress towards the program's higher-level objective as well as offer opportunities to experiment across different delivery mechanisms to identify *what works.*

II. PROGRAM DESCRIPTION

A. Program Overview

28. The FSRP is a proposed multisectoral investment program co-led by regional organizations (ECOWAS, CILSS, and CORAF) in cooperation with participating countries. FRSP translates the three priority areas summarized in Figure 2 into three components: (i) Component 1: Digital Advisory Services for Agriculture and Food Crisis Prevention and Management; (ii) Component 2: Sustainability and Adaptive Capacity of the Food System's Productive Base; and (iii) Component 3: Regional Food Market Integration and Trade. The three-pronged approach builds on the 2021 *Blueprint for Strengthening Food System Resilience in West Africa.*[31] By investing simultaneously across these three areas and targeting priority landscapes and value chains of regional relevance, the program takes a system approach to stimulate virtuous cycles.

29. The design of FSRP builds on extensive analytical work and directly advances four main messages of the World Bank (2019) review, *Financing for Food Security: Four Decades of World Bank Support to Respond to Crisis and Prevent Famine:* (i) increase investment in resilience; (ii) improve early warning mechanisms; (iii) rely on regional approaches and projects that address food insecurity in fragile areas; and (iv) further enhance and refine the World Bank's financing toolkit. Other key analytical underpinnings are (i) the CAADP and National Agriculture Investment Plans (NAIPs), which set out development strategies for agriculture in a

[31] World Bank and Food and Agriculture Organization of the United Nations (2021), *A Blueprint for Strengthening Food System Resilience in West Africa: Regional Priority Intervention Areas.* Washington, DC. *https://openknowledge.worldbank.org/handle/10986/35618.*

given country; (ii) the CSA profiles and investment plans that prioritize technologies and delivery channels to increase climate-smartness in the sector; and (iii) the AGIR[32] National Resilience Priorities (Burkina Faso, Mali, Niger, Togo), which contextualize and highlight relevant responses within a multi-sectoral perspective.

30. To achieve lasting structural change, FSRP invests in the institutional capacity of the regional organizations with political mandates to establish an enabling environment for food system resilience in the region. Component 1 of FSRP will strengthen the capacity of CILSS/AGHRYMET to fulfil its mandate of collecting, processing, and disseminating the climate and other information necessary for improving food security, building on and strengthening mechanisms such as the *Cadre Harmonisé* and ECOWAS Agriculture Information System (ECOAGRIS) database (see Annex 5). Component 2 will enable CORAF to consolidate the regional research system established under WAAPP, including strengthening CORAF's ability to coordinate the regional research agenda and to develop a coherent approach to ILM, particularly in transboundary areas (see Annex 6). Component 3 will enable ECOWAS to improve its capacity to promote regional food trade policy and legislation and to monitor regional agricultural trade flows, further supported by AKADEMIYA2063 (A2063) (see Annex 7).[33]

31. As a medium-term MPA program, FSRP will serve as regional platform to create synergies with other initiatives across the region. These include: (i) the Regional Pastoralism Support Project in the Sahel Phase 1 (PRAPS I, P147674) and Phase II (PRAPS II, P173197), in relation to the role of pastoralists in the food system, the intersection between crop farmers and pastoralists (especially in targeted landscapes), and pest and disease management; (ii) the Disease Surveillance and Response Project (REDISSE, P159040), also addressing aspects of pest and disease management; (iii) the Accelerating Impacts of CGIAR Climate Research for Africa (AICCRA) Project (P173398), to ensure access to cutting-edge technologies from the Consultative Group on International Agricultural Research (CGIAR) for a network of regional research institutions; (iv) the G5 Sahel and Sahel Alliance's food and nutrition security interventions; (v) geographically focused recovery and stability projects, such as the Community-Based Recovery and Stabilization Project for the Sahel (P173830); (vi) the Lake Chad Region Recovery and Development Project (P161706); (vii) projects promoting trade, such as the Trade Facilitation West Africa (TFWA) Program, and those establishing corridors in the region (such as the Lomé-Ouagadougou-Niamey Economic Corridor Project (P168386), which shares an intervention zone with FSRP Phase I); (viii) the Sahel Irrigation Initiative Support Project (SIIP; P154482) in relation to watershed restoration and infrastructure; and (ix) the Regional RPCA, to coordinate efforts to improve the *Cadre Harmonisé* framework. Annex 12 presents an overview of complementarities between these initiatives and FSRP.

32. FSRP is designed to achieve greater regional impact and food system resilience gains than any number of individual national investments could achieve. Figure 4 summarizes FSRP's anticipated regional benefits. Part of the program's approach is to augment effective operational regional collaboration, which is a prerequisite for any type of information services on transboundary concerns such as extreme climate events or pest and disease outbreaks. To better monitor and forecast these occurrences, neighboring countries must pool resources and jointly provide analytical insights in addition to sharing data and information. Even specific actions confined to a single country will have a regional impact, produce spillover benefits, and require a coordinated response. Climate information can be analyzed and used more efficiently if it flows from global and regional forecasting centers to national and subnational forecast offices, following a cascading process paradigm. A regional collaborative information flow is also essential for tracking meteorological hazards, as West African

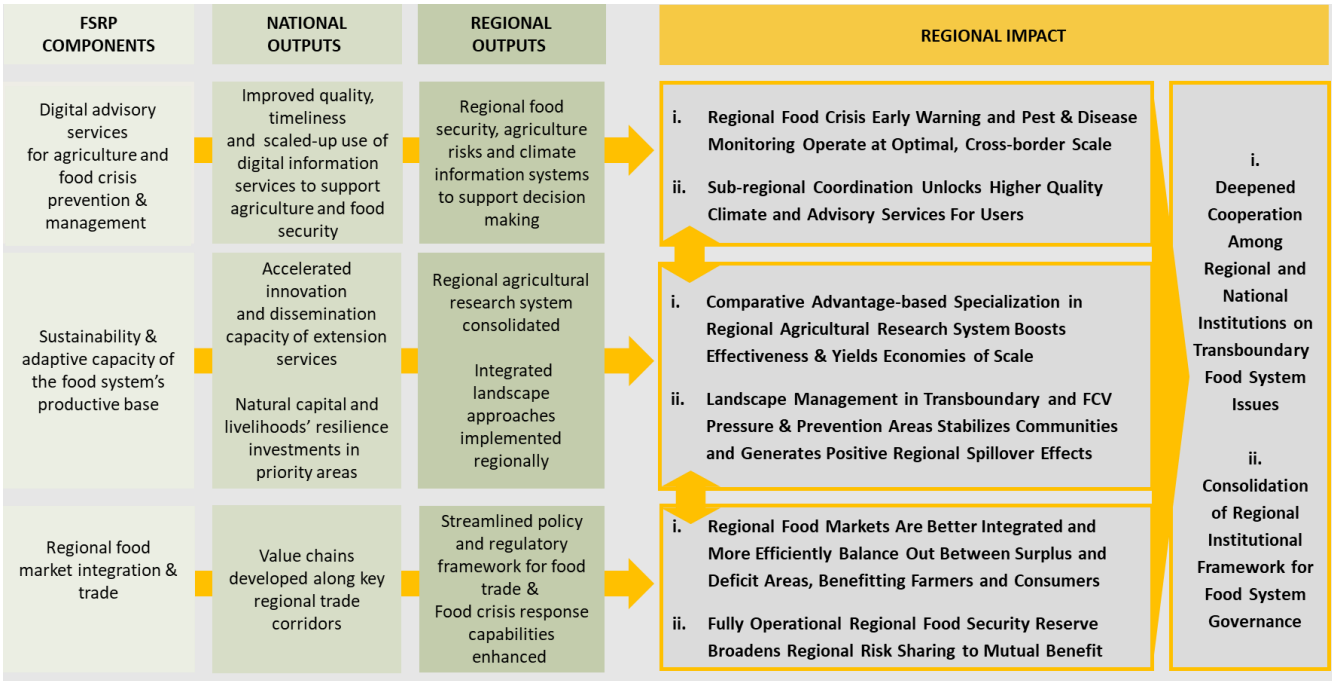
[32] The AGIR, is a framework that helps to foster synergy, coherence, and effectiveness in support of resilience initiatives in the 17 West African and Sahelian countries.

[33] AKADEMIYA2063 is an African think tank established to continue and expand the portfolio of policy research and capacity strengthening support for implementing CAADP. It was initiated and incubated by the International Food Policy Research Institute (IFPRI) over the past 15 years. This portfolio has included three main programs: the Regional Strategic Analysis and Knowledge Support System (ReSAKSS), the African Growth and Development Policy (AGRODEP) Modeling Consortium, and the Malabo Montpellier Panel (MaMo Panel) (*https://akademiya2063.org/*).

countries rely either on their own national meteorological and hydrological services (NMHSs) or cover their national needs through services from a neighboring country or regional institution.

33. As noted, FSRP receives technical and analytical support from the regional ASA FSRF and also builds on extensive analytical work by the World Bank and other partners. Under a three-pillared programmatic approach (PA), the ASA: (i) partners with regional organizations and other stakeholders to build consensus on priority intervention areas in alignment with FSRP; (ii) develops tailored technical deliverables on critical aspects of FSRP design; and (iii) offers learning services to strengthen the counterpart capacity at FSRP implementing organizations. Extensive collaboration continues with other major programmatic ASA, including Sahel Adaptive Social Protection (P173603) and Strengthening Hydromet and Early Warning Services in West Africa (P173768).

Figure 4: Regional benefits of the West Africa FSRP



34. FSRP integrates the following seven cross-cutting issues at regional and national levels, with specific activities forming part of the program components, accelerating progress across intervention areas:

(a) **Digital transformation.** Digital technologies and networks are transforming food systems by overcoming longstanding transaction costs and information asymmetries. Recent breakthroughs in digital technology, facilitated by exponential growth in the use of mobile phones, can deliver significant positive impacts along the food value chain from farm to fork. FSRP will harness this potential across components, particularly by developing cost-effective and sustainable digital services for production systems, while ensuring inclusive access and narrowing digital divides. Such services will enable millions of people to access and benefit from user-friendly advisory services based on emerging and innovative digital technologies.

(b) **Climate change adaptation and mitigation.** Climate change adaptation lies at the core of FSPR's objectives. Climate change is the main source of risk to agricultural production food security in Niger, Mali, Burkina Faso and Togo. These countries rely predominantly (in some cases, by 97 percent) on rainfed agriculture. All the program interventions aim to strengthen climate resilience by reducing the region's vulnerability to

shocks and building adaptive capacity. Climate change mitigation co-benefits will be generated through sustainable and climate-smart land-use, reducing emissions from land-use change. Opportunities to achieve climate mitigation will be pursued where possible, notably in relation to landscape restoration, preservation and reduction of GHG emissions from livestock production under Subcomponents 2.1 and 2.2; as well as the reduction of food loss and waste in value chains supported under Subcomponents 3.1 and 3.2.

(c) **Gender.** FSRP embeds gender-focused interventions in all components to close some of the gender gaps in West African food systems (see Annex 15, Gender Gap Analysis and Gender Action Plan). Program interventions will specifically target women through dedicated activities responding to their needs, such as training, tools to increase uptake of information and communication technology (ICT), adapted agricultural technologies, and access to extension services and irrigation. M&E indicators are disaggregated by gender.

(d) **Food system approach.** FSRP aims to achieve outcomes at the regional food system level and follows the expansive definition of food systems developed by the FAO (see footnote 5). Given the vulnerabilities in the regional food system, particularly in view of climate change,[34] FSRP invests primarily at the production and upstream value chain levels. The program's food system approach encompasses some downstream issues, however, including food safety (Subcomponents 2.1, 3.1, 3.2), the reduction of food loss and waste (Subcomponents 2.1, 2.2, 3.2), and issues related to diet and nutrition (see the next point).

(e) **Nutrition.** FSRP adopts a nutrition-smart agriculture (NSmartAg) and value-chain approach. NSmartAg focuses on primary production, agri-food processing, and distribution—the stages at which farmers and agribusinesses decide what and how to produce—to enable the food system to improve nutrition in vulnerable populations. Nutrition is improved by encouraging an adequate supply of micronutrients (through fortified foods, for example) and dietary diversity (for instance, promoting the consumption of fruits, vegetables, and pulses).

(f) **Maximizing Finance for Development (MFD) and promoting public-private engagement.** The FSRP design recognizes the dominant role of the private sector in achieving food system resilience, from upstream producers to downstream agribusinesses, including agro-processors as well at its potential to leverage finance, expertise and innovative solutions to support sustainable growth. As the largest employer in West Africa, the food sector offers significant potential to create jobs and reduce poverty. FSRP will mainstream private sector participation across components, including: (i) applying the cascade paradigm to stimulate private investment in value chains; and (ii) creating incentives for the private sector to provide services dominated to date by the public sector, such as agro- and hydrometeorological services, R&D in the agricultural innovation system, and extension services related to agricultural and natural resource management (see respective component descriptions under D and Annexes 1-7). As mentioned, to maximize private sector engagement, FSRP will leverage synergies with International Finance Corporation (IFC), not only through planned IFC investments, but by promoting the environment for agribusiness across FSRP components by building on the IFC Country Private Sector Diagnostics (CPSD).

(g) **Fragility, conflict and violence (FCV).** FCV dynamics strongly interact with the core FSRP intervention areas of crisis prevention and management (Components 1 and 3), food security, and natural resource management (Component 2). FSRP will contribute to identify and reduce conflict risk, economic shocks and environmental fragility through resilient and sustainable resource management, thereby preventing

[34] World Bank (2021, forthcoming). A Blueprint for Agriculture and Food System Resilience in West Africa: Review and Regional Priority Intervention Areas.

destabilizing cross-border spillovers. Building on the framework developed by the "Building Stronger Food Systems in Fragile, Conflict and Violence Situations"[35] report, FSRP will address drivers of fragility through:

i. ***Strengthening governance and institutional capacity*** by improving accountability, transparency, predictability, and targeting in food distribution and public investment; inclusion of vulnerable people and lagging regions in programs; and repairing and strengthening national and community-based institutions that together can help improve state legitimacy and capacity, and social cohesion.

ii. ***Preventing and responding to food crises*** via monitoring and early warning systems; improving crop and livestock resilience to pests, diseases, droughts and floods, including rehabilitation of irrigation schemes; reducing sudden and unexpected food prices spikes; building longer term productivity growth, and developing food and input markets.

iii. ***Job creation through agribusiness development*** via support for inclusive business models; considering agri-spatial solutions to improve security and infrastructure for private sector development; and restore, build and protect capital stock in food systems.

iv. ***Resilient and sustainable resource management,*** particularly access to and use of land and water among herders and crop producers, and increased water and soil preservation.

B. Program Beneficiaries

35. It is estimated that FSRP will reach 4 million direct beneficiaries (2.3 million in phase I and 1.7 million in phase II) with a range of interventions designed to reduce vulnerability to climate change impacts at the individual and food system level. Direct beneficiaries include farmers (with special focus on women and youth), small-scale producers and processors, and agricultural (M)SMEs. The program aims to reach at least 40 percent women. Additional beneficiaries will include other food system actors, such as government line ministries, the regional organizations (ECOWAS, CORAF, and CILSS), and other public and private institutions and services. The results framework presents a breakdown of beneficiaries in each participating phase I country. The program also aims to reach a large number of indirect beneficiaries spanning the range of food system actors from production to consumer's nutrition by improving food system outcomes through its structural investments.

36. The success of FSRP in reducing the gender gaps identified in Annex 15 will be measured in the results framework by assessing: (i) women farmers' access to improved technologies/ irrigation, and to services; and (ii) women farmers reached with assets or services to improve commercialization in selected value chains. Other specific evaluations, in addition to indicators from the results framework and results chain, will provide additional information to assess progress in reducing gender gaps.

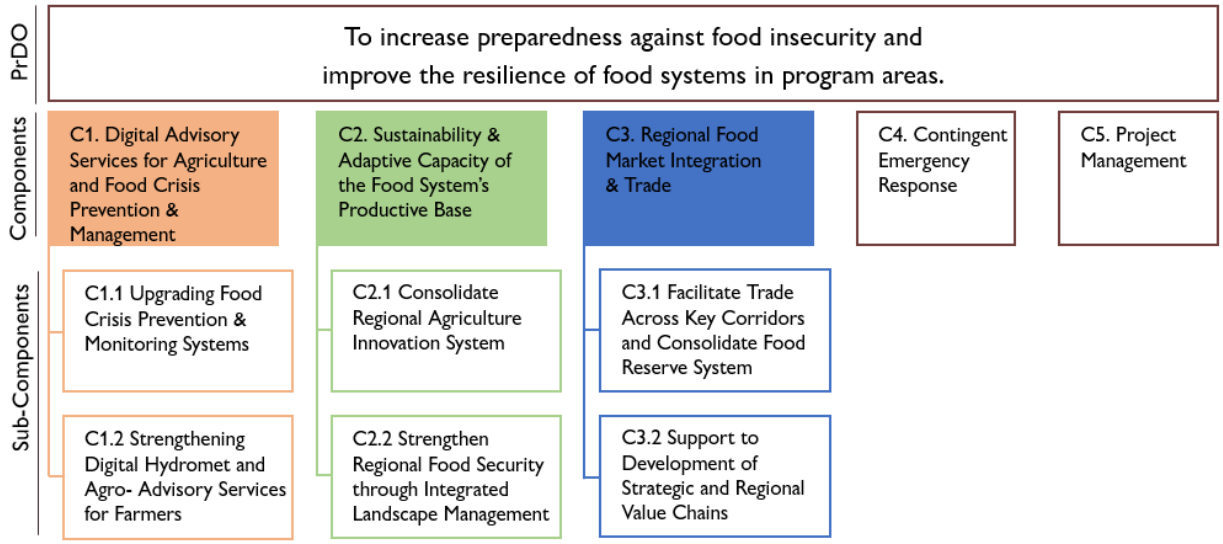
C. Program Components

37. By providing a flexible framework of potential activities that countries can choose to pursue, the program balances the need for participating countries to make investments that activate regional mechanisms with the needs of participating countries for interventions tailored to their circumstances. For example, there is flexibility to choose the particular agro-information services provided under Component 1, the priority research agendas and landscapes under Component 2, and the priority value chains and specific activities to promote their development under Component 3. For that reason, the description of program

[35] The "Building Stronger" report also highlights the need to tailor interventions to the local context and to increase the participation of local stakeholders. Ongoing analytical work under the FRSF is developing a climate-FCV vulnerability map which will help identify, through cluster analysis of climate vulnerability in combination with dimension reduction, groups of settlements with similar vulnerability and conflict profiles that can help in aligning interventions to specific risks.

components that follows refers to general categories of potential interventions; the interventions chosen by each country are defined in detail in respective Country PADs (Annexes 1–4).

Figure 5: Components and subcomponents of the West Africa FSRP



COMPONENT 1: DIGITAL ADVISORY SERVICES FOR AGRICULTURE AND FOOD CRISIS PREVENTION AND MANAGEMENT [US$44.1 million IDA and US$4.7 million Dutch TF]

38. **Component 1 is designed to:** (i) enhance decision support systems with demand-driven information services in order to increase the effectiveness of agriculture and food crises prevention and management, integrating data and leveraging cutting-edge science, innovation, and technologies; and (ii) strengthen regional capacity and institutional sustainability, as well as capacity to adapt to climate change. Expected outcomes are: (i) upgraded regional food crisis prevention and management systems leveraging stronger regional operational capacity of agro-hydrometeorological services and impact-based early warning systems; and (ii) food system stakeholders accessing and using agro-hydrometeorological information services in their decision-making.

Subcomponent 1.1: Upgrading Regional Food Crisis Prevention and Monitoring Systems

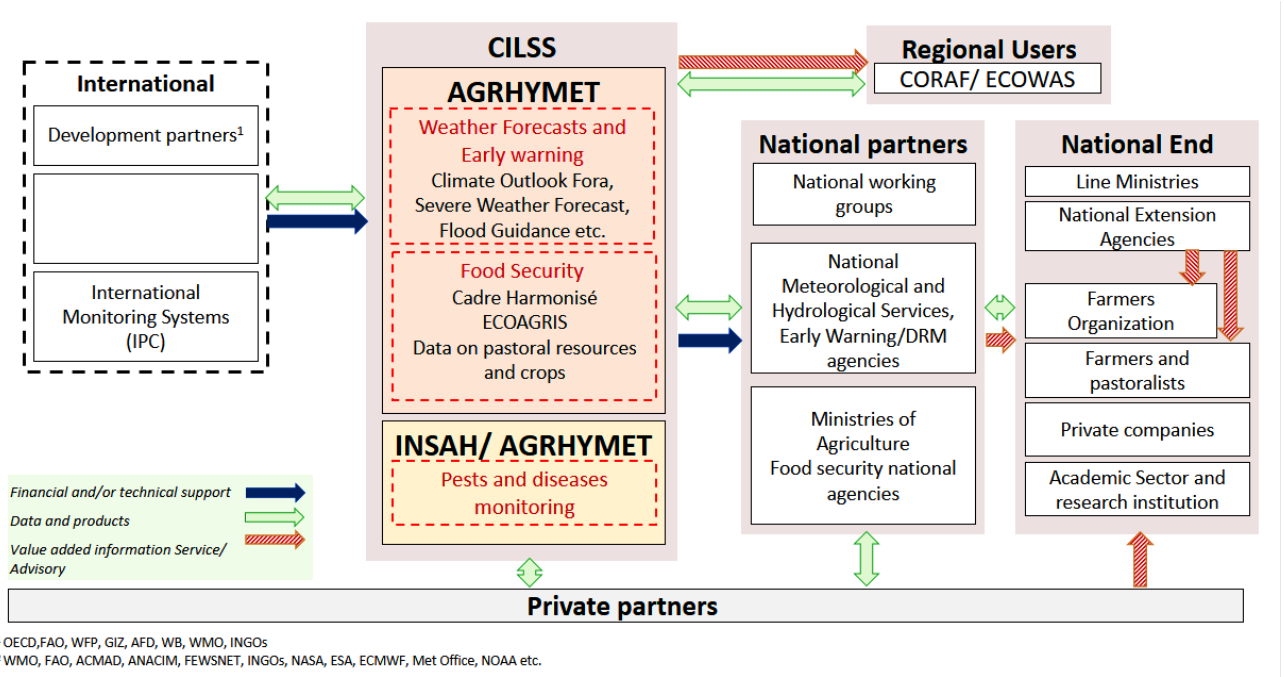
39. This subcomponent includes specific investments designed to:

(a) **Improve regional and national capacity to deliver reliable information services on vulnerability, nutrition, and food security,** including: (i) upgrading the *Cadre Harmonisé* and ECOAGRIS to support decision-making and advisory services; (ii) strengthening ICT infrastructure, data collection, and analysis as well as technical capacity at the national and regional levels, making data available to all actors in the region, including by automating data flows into regional food security and agriculture information systems; (iii) developing decision support tools and methods for improved, user-targeted agro-advisory services and early warning and response services for food security; and (iv) introducing innovative technologies to improve data collection, integration, and analysis.

(b) **Reorganize and improve regional and national pest and disease monitoring and management mechanisms**, including: (i) strengthening phytosanitary data collection; (ii) developing and operationalizing harmonized phytosanitary data management and forecasting systems; and (iii) regional harmonization of pesticide regulations and registration.

(c) **Strengthen regional collaboration for food crisis prevention** through harmonized approaches and the promotion of collaborative public and private sector partnerships. Activities will: (i) promote collaboration between regional and national entities and lay the foundation for sustaining the development and improvement of services by establishing thematic regional working groups; and (ii) build the value of data related to agriculture, food security, vulnerability, and hydromet services by implementing data policies based on open access principles.

Figure 6: Institutions involved in digital advisory services for food crisis prevention



Subcomponent 1.2: Strengthening Digital Hydromet and Agro-Advisory Services for Farmers

40. This subcomponent aims to develop new services that increase the quality, accessibility, and use of impact-based and location-specific weather, climate, and hydrological (hydromet) information, as well as its application to agriculture (agromet) to provide tailored services of various kinds. Special attention will be given to the needs of the most vulnerable groups, such as female and young farmers and pastoralists.

41. This aim will be achieved by strengthening operational linkages between CILSS/AGRHYMET and the NMHSs, in collaboration with key stakeholders such as disaster risk management (DRM) agencies and the private sector. Investments under this subcomponent seek to:

(a) **Improve the production of climate, hydromet, agromet, and impact-based information for use by decision-makers, farmers, pastoralists, and other actors in the food system**. This will be done by: (i) augmenting regional and national hydromet infrastructure and technical capacity to observe and forecast hydromet phenomena and provide demand-driven information services to end-users, including impact-based forecasting, warning, and advisory services; (ii) streamlining the "chain of information" across regional, national, and subnational levels to develop cost-effective regional information systems; (iii) ensuring maximum leverage of available global and regional products and services across timescales, with specific emphasis on the sub-seasonal to seasonal timescale; (iv) enhancing cooperation between

public and private hydromet and agromet service providers; and (v) supporting targeted capacity building. Tailored services will be provided to better inform the development of agriculture and of risk financing instruments (emergency funds, insurance, derivatives, contingency loans).

(b) **Support the timely delivery and use of essential agro-hydrometeorological information to key users,** including farmers and pastoralists, by building their capacity, developing multimodal communication channels, and supporting the co-development of services by engaging users. These investments will especially target the geographical intervention areas of Component 2 and agricultural products from value chains selected under Component 3.

(c) **Strengthen the financial and institutional sustainability of regional and national institutions providing climate, hydromet, and agromet information** by: (i) developing and implementing a strategy for long-term financial and institutional sustainability; (ii) creating a policy environment conducive to collaboration between the public, private, and academic sectors; (iii) facilitating open access to relevant hydrological and meteorological data and basic services; and (iv) leveraging state-of-the-art technologies and new business models.

42. **Gender**. Component 1 includes activities specifically targeting women, such as assessments of gender roles and responsibilities to aid in the monitoring and early diagnosis of pests and diseases for each target value chain, developing information tools to address women's information requirements, and/or a toolkit for e-learning opportunities focusing on women, among others (see Annex 15).

43. **CILSS will implement the regional-level activities (as described in Annex 5). National level activities will be coordinated by the national FSRP PIUs** and will involve NMHSs; national agencies in charge of extension systems, food security, and DRM; inter-agency coordination platforms; the private sector; and the academic sector. CILSS will ensure overall regional collaboration between countries to achieve the component's objective.

COMPONENT 2: SUSTAINABILITY AND ADAPTIVE CAPACITY OF THE FOOD SYSTEM'S PRODUCTIVE BASE [US$168.9 million IDA; US$17.5 million GAFSP; US$7.3 million Dutch TF]

44. **The objective of Component 2 is to enhance the resilience of the food system's productive base and contribute directly to the GGWI**. Expected outcomes are: (i) strengthened national and regional agricultural research systems; (ii) a strengthened policy environment for landscape governance (multisectoral inclusive policies and regulations to avoid, reduce, and reverse land degradation); and (iii) landscape units (LUs) under integrated management that are able to achieve multiple objectives sustainably (food production, provision of ecosystem services, protection of biodiversity, and improvement of local livelihoods).

45. Component 2 has two mutually supporting subcomponents: Subcomponent 2.1 (Consolidate Regional Agricultural Innovation Systems) and Subcomponent 2.2 (Strengthen Regional Food Security through ILM). Technologies and innovation to be scaled up flow from Subcomponent 2.1 to 2.2, and the land and water management research group constituted under Subcomponent 2.1 will provide technical support and coordination between countries implementing landscape interventions. Information services will also flow from the first to the second subcomponent. These measures are intended to increase resilience to the effects of climate change: address the risk of droughts and improve yields in rain-fed agriculture.

Subcomponent 2.1: Consolidate Regional Agricultural Innovation Systems

46. This subcomponent aims to consolidate the regional agricultural research and extension systems so that they can deliver adapted technological innovations for the region's food systems. Priority will be given to

delivering technologies that are climate-smart, nutrition-sensitive,[36] gender-sensitive,[37] and youth-friendly to reach and respond to the needs of the agri-value chain actors, including rural communities, smallholder farmers, and pastoralists. The system will specifically generate knowledge and expertise in mitigating climate risks with an emphasis on climate-resilient varieties, landscape management and capacity building on climate risks. This subcomponent will finance interventions along the following axes:

(a) **Strengthen National and Regional Research Centers**. NCoSs and Regional Centers of Excellence (RCoEs), in participating countries, established under WAAPP (P122065)[38] will be consolidated. CORAF will facilitate the transition of four NCoSs to RCoEs, in addition to supporting the establishment of new NCoSs for mechanization, bio-risk management, and land and water (with expertise in ILM). The "NCoS" for land and water will not be a new agency; rather it will be constituted as a research cluster focusing on ILM under the direction of CORAF, in coordination with CILSS. CORAF will also fund training for PhD students. At the national level, the FSRP will support participating countries to invest in capacities (infrastructure, equipment, and the training of young scientists at master and PhD levels with a particular focus on climate-smart plant breeding and seed systems through a competitive selection process) of their NCoSs, RCoEs, or national research institutions to continue exchanging technologies with other ECOWAS countries.

(b) **Deepening and expanding regional R&D networking**. FSRP will accelerate regional R&D networking with CGIAR centers and other international agricultural research institutes (IARIs), in synergy with the AICCRA Project. Specifically, CORAF will support regional networking and capacity building, technology exchange platforms and fairs, and regional R&D grants through existing commissioned agricultural research grant scheme. At the national level, participating countries will invest in linkages with international research centers through participation to international scientific fora, strategic studies and planning, priority research, exchange of researchers, communication, and knowledge sharing.

(c) **Modernize national extension services**. FSRP will promote modern approaches to extension, including by supporting the adoption of digital agriculture and e-extension services. At the regional level, CORAF will support training and coaching of facilitators, identify and select relevant tools for e-extension and digital agriculture and facilitate their adoption, and review the design of agriculture advisory service delivery mechanisms. At the national level, participating countries will benefit from the regional support of CORAF and invest in equipment and capacity building to upgrade their extension services and strengthen capacity in key agendas such as nutrition. These activities will be carried out in coordination with those to be implemented under Component 1.

(d) **Promote technology access and exchange.** FSRP will promote modern technology platforms, including value chain innovation platforms, innovative mechanization services, upgraded national seed systems, soil fertility management capacity (soil map preparation, soil testing, and soil fertility monitoring).

47. CORAF will implement the regional-level activities of Subcomponent 2.1 (see Annex 6), and the participating countries will be responsible for the complementary national investments. At the regional level, CORAF will mobilize technical assistance (TA); organize knowledge management, communication, capacity building, and training programs; support PhD students; and manage a competitive regional grant scheme.

[36] A nutrition-sensitive technology aims to increase the production and consumption of a range of nutrient-dense food and to improve post-harvest handling, preservation, and processing to ensure the consistent provision of safe food of good nutritional quality.
[37] A gender-sensitive technology is based on women's needs, affordable, labor-reducing, accessible, and does not harm women.
[38] Under WAAPP, seven NCoS and two RCoS were established in Benin (maize), Burkina Faso (fruits and vegetables), Côte d'Ivoire (plantain), Ghana (cassava), Mali (rice), Niger (livestock), Nigeria (fish farming), Senegal (coarse grains), and Sierra Leone (rice).

Subcomponent 2.2: Strengthen Regional Food Security through Integrated Landscape Management

48. Subcomponent 2.2 seeks to contribute to improved food security for rural households and build their resilience to climate variability by supporting ILM as a long-term collaborative process. The intended outcome is a food system that makes more-efficient use of already limited land and natural resources, is more resilient, and has a significantly smaller environmental footprint. More specifically, this subcomponent will:

(a) **Focus on an integrated landscape approach to managing natural resources in a sustainable manner,** consistent with the spatial, ecological, cultural, and socio-economic context (Box 1). Under this approach, FSRP will incorporate different land and water uses within a single management framework that balances competing resource-use demands and integrates policies for multiple uses of land and water within a given area. Natural capital will be protected by promoting synergies between activities that boost production systems, improve local livelihoods, and support biodiversity conservation and ecosystem services. This framework reflects lessons from a comprehensive review, undertaken in preparing the FSRP, of the World Bank's engagement in landscape management in the Sahel. The approach to ILM under FSRP contributes to the World Bank's commitment to support the GGWI.

(b) **Prioritize geographical areas based on five principles that yield regional benefits:** (i) prevalence of poverty and food insecurity; (ii) potential for increased agricultural production and productivity, and for promoting the landscape's natural resource products; (iii) degree of natural resource scarcity; (iv) location near conflict areas; and (v) potential for maximizing complementarity and synergies with past/ongoing projects promoting a similar integrated approach.

Box 1: The integrated landscape management (ILM) approach is a planning process undertaken to manage natural resources in a sustainable manner in a given area, cognizant of the spatial, ecological, cultural, and socio-economic context, with the ultimate goal of ensuring that food productivity can remain sustainable over time. The ILM approach aims to provide a basic framework for balancing competing land and water use policies and demands within a given area, over time. The approach is highly participatory, as the different land and water users and institutions collaborate to develop and implement a shared vision and plan; this participation is fundamental for success.

ILM encompasses a range of interventions, from agroforestry to cross-slope barriers, rainwater harvesting, integrated soil fertility management, pastoralism and rangeland management, sustainable forest management, protected area management, integrated crop and livestock management, and climate-smart agriculture. Proven benefits of landscape approach interventions are: (i) increased natural resource and agricultural productivity; (ii) improved livelihood support; (iii) enhanced resilience and adaptation to climate change; (iv) improved ecosystem integrity and biodiversity; and (v) increased security. It thus replaces traditional single-sectoral development interventions focusing on supporting local governance initiatives that involve the different users of natural and water resources in a given area. The approach does not advocate for the creation of new institutions but helps to improve existing institutions or supports the development of these institutions to play a new role, as/if needed within a given landscape.

The best lessons for FSRP come from the Sahel and West Africa Program in support of the Great Green Wall (SAWAP), which piloted a Sustainable Land Management approach in the region. From 2012 to 2019, over 1.6 million hectares were brought under sustainable land management, against an initial target of 1.3 million hectares, benefitting more than 19 million people. SAWAP was oriented toward interventions on the ground, working only to a limited extent on community-based planning and vision development, with some results not sustained or scaled up.

Note: For details on the theoretical basis of the ILM approach, see Gray et al. (2016), *Integrated Landscape Approaches for Africa's Drylands.* World Bank Studies. Washington, DC: World Bank. https://openknowledge.worldbank.org/handle/10986/24814.

49. Subcomponent 2.2 will support three groups of activities to:

(a) **Establish participatory ILM.** Landscape governance is a process in which decisions are jointly made and implemented by different stakeholders regarding access to, control of, and use of the landscape and its resources. It seeks to reconcile conflicting interests in land to avoid, reduce, or reverse land degradation and its far-reaching negative economic and social consequences. Within this framework, each target LU will articulate a shared development vision and design and implement a corresponding integrated landscape management plan (ILMP) with full stakeholder participation. Activities will support stakeholders to identify the interactions between different land and water uses and different user groups to create an ILMP that can meet multiple land-use objectives, such as agricultural production for food security, provision of ecosystem services, protection of biodiversity and natural resources, and improvement of local livelihoods, human health, and well-being. Each LU will establish or strengthen a fully operational landscape committee to supervise the design and implementation of the ILMP and its supporting identified investments and subprojects[39]. The ILMPs will also give priority to the needs of particularly vulnerable or marginal stakeholders (those who lack an institutional voice, such as women and youth), including nutritional aspects.

(b) **Enhance the resilience of eco- and food systems in priority landscapes.** The actions and investments supported through this activity aim to restore environmental services in priority landscapes and, in turn, build resilience in their ecosystems. Eligible investments may include: land and watershed restoration, agroforestry, floodplain restoration, water mobilization and irrigation schemes rehabilitation , the delivery of farm/community-level packages of CSA technologies (including drought-resistant crops and specific soil management techniques to reduce water evaporation and enhance climate adaptation), and other interventions that reflect ILM principles and enhance the resilience of priority landscapes to climate change (for instance, arboretums to support agrobiodiversity, improve ecosystem health, and improve soil carbon and the micro-climate).[40] These activities will benefit from the research orientations and innovations developed under Subcomponent 2.1.

(c) **Secure resilient eco- and food systems beyond priority landscapes.** To promote better access to markets, at the country level FSRP will support the development of formal productive alliances (PAs). Working with groups of small producers in the targeted landscapes (for instance, producers of non-timber forest products), the program will help them to develop business plans and secure contracts with national and international buyers. Based on the specific contractual arrangements and business plans of each PA, support will be provided for capacity building and/or equipment (including refrigeration systems). This activity is complementary to activities under Subcomponent 3.2, as it focuses on small local producers and helps them connect to markets that they cannot access on their own. In addition, this subcomponent will support nutrition in Mali and GAFSP interventions to improve livelihoods in Burkina Faso (see Annex 1-2)**.**

50. Subcomponent 2.2 will be implemented by participating countries in close collaboration with CORAF. As a first step, CORAF will develop an ILM research network, under Subcomponent 2.1, to coach and provide best practice expertise to countries. CORAF will provide scientific back up for the preparation and

[39] The ILM subprojects would be financed for farmers organizations and local decentralized institutions. The selection and approval of the subprojects will be made by the governing body of local institution (rural council, municipal council). Subproject beneficiaries will provide in kind contribution up to 20 percent for subprojects implementation to eligible investment areas described in (b). The country-level PIMs will provide specific information on the ILM subprojects.

[40] Altieri, M. A. et al. (2015) Agroecology and the design of climate change-resilient farming systems. In *Agronomy for Sustainable Development Journal*, 35 (2015), pp. 869-890. The so-called *Ecosystem-based adaptation* (EBA) would have an important role in developing an agricultural sector that is linked to viable supply and demand value chains, well integrated into the broader landscape; is climate resilient and environmentally and socially sustainable (Muthee, K. C. et al. (2017) Ecosystem-based Adaptation (EbA) as a climate change adaptation strategy in Burkina Faso and Mali. In Leal Filho, W. et al. (eds) 2017, *Climate Change Adaptations in Africa*

implementation of the ILM approach across the countries and targeted areas. In addition, specific entities will be hired to be in charge of developing local-level context-specific solutions for the implementation of ILM in the different priority landscapes. Detailed information on how the ILM approach will be implemented will be in the country PIMs.

51. Gender. Component 2 includes specific activities designed to benefit women, such as scholarships for women researchers to obtain doctoral and master's degrees and agri-vouchers to provide subsidized inputs to 50 percent of women farmers. Component 2 will focus particularly on reducing the gender gap in access to improved irrigation facilities by promoting solar pumps, small-scale communal irrigation, and the settlement of women farmers on formerly degraded land that has been restored (see Annex 15).

52. Measuring climate co-benefits. A subset of these co-benefits will be measured through a simple and effective georeferenced M&E system designed and implemented to assess the impacts of decisions taken and actions carried out at the landscape level (see the section on M&E).

COMPONENT 3: REGIONAL FOOD MARKET INTEGRATION AND TRADE [US$84.3 million IDA; US$5.5 million GAFSP; US$6.9 million Dutch TF; US$25 million GRiF TF]

53. This component will serve as a low-carbon climate adaptation mechanism, by balancing food production across intra-regional spatial production volatility driven by climate change and increasing the pace of response to these climate-induced food shortages. The component expected outcomes are: (i) increased intra-regional food trade between surplus and deficit areas; and (ii) increased value creation in regional priority value chains. ECOWAS will ensure overall coordination of this component.

Subcomponent 3.1: Facilitate Trade Across Key Corridors and Consolidate Food Reserve System

54. FSRP will support the preparation and implementation of regional policies and regulations to increase regional flows of agricultural goods and inputs, and to consolidate the Regional Food Reserve System. ECOWAS will coordinate implementation of Subcomponent 3.1 in collaboration with the West African Economic and Monetary Union (WAEMU) and CILSS. ECOWAS will also implement the regional activities of Subcomponent 3.1, while participating countries will be responsible for the complementary national investments. Subcomponent 3.1 intends to generate climate-change adaptation co-benefits in full based on its role in enabling a critical regional level adaptation mechanism as noted above. The FSRP will provide financing to:

(a) **Develop an ECOWAS Agricultural Trade and Market Scorecard Mechanism** (EATM-S). The scorecard is intended to increase transparency and accountability by tracking national implementation of regional policies and regulations. Its development will build on successful examples from other sectors, such as the Partnership to End Malaria scorecard. FSRP will support an annual peer-learning workshop for experience sharing based on EATM-S findings.

(b) **Build a West Africa Rice Observatory**. FSRP will support ECOWAS to strengthen and operationalize its West Africa Rice Observatory which will coordinate rice sector investments, inform policy decisions, and ensure both are aligned with markets. FSRP's support will focus on enhancing the Observatory capacity for coordination, data gathering, and regular communication on rice value chain development. This commodity-based platform ensures strong private sector representation and could serve as a model for similar undertakings for other commodities.

(c) **Stimulate Agricultural Regional Trade Policy Harmonization on Critical Food System Resilience Issues.** Initiate legislation and regional cooperation on Sanitary and Phytosanitary Standards (SPS) for enhanced food and trade standards, food safety and compliance, and implementation of the ECOWAS Trade

Liberalization Scheme (ETLS) and ECOWAP. ECOWAS will finance the required analytical studies, specialized TA, diffusion and dissemination of regional legislations and policies, training of regional and national experts, communication, and knowledge management. Work will be led by the ECOWAS Interdepartmental Committee for Agriculture and Food. The participating countries will invest in harmonizing and implementing the regional policies at the national level, strengthening their national institutions and relevant capacity, and engage in awareness campaigns for private sector and inter-professional organizations on SPS, ETLS, and related topics.

(d) **Support ECOWAS Multi-Stakeholder Policy Dialogue and Consultation**. FSRP will support the facilitation capacity of ECOWAS to organize inclusive multi-actor dialogue and consultation mechanisms, and negotiations over accession to a continental free-trade area and the World Trade Organization (WTO). The program will strengthen the Agriculture Regional Farmers and Private Sector Apex Organizations with capacity building in advocacy and trade policy negotiation skills.

(e) **Improve Regional Food Security Reserve Performance**. Support for the Regional Food Security Reserve will focus on strengthening capacities to respond to food crises, designing sustainable mechanisms for financing food storage and crisis management systems (including risk transfer solutions), and providing direct support to the first (local and community storage), second (national security stocks), and third (regional physical and financial reserves) lines of food security defense. At the regional level, FSRP aims to (i) invest with the GRiF in a risk financing backstop (US$25 million grant) for the reserve, ensuring that if a shock occurs, capital will be supplied to accelerate utilization and support (grant remains to be confirmed); and (ii) provide TA and training workshops to build the capacity of the Regional Food Reserve System at the national level. At the national level, Burkina Faso also proposes investments in storage infrastructure and equipment; Mali and Togo propose to invest in food stock infrastructure and management.

55. At the regional level, Subcomponent 3.1 will mainly support the regional strategic financial reserve and invest in international TA, workshops and capacity building events, policy instruments, knowledge management, and communication. ECOWAS will hire certified event managers, facilitators, and consultants to help organize meetings to develop policy instruments. AKADEMIYA 2063 will support the rollout of the ECOWAS Agriculture Trade and Market Scorecard. In addition, this organization will support the program to monitor and assess its impacts on beneficiaries during implementation. For the ECOWAS Rice Observatory, the program will support the salaries of 3 experts including the ERO coordinator and support rice investments data gathering, investment mobilization and Member State consultations.

Subcomponent 3.2: Support the Development of Strategic and Regional Value Chains

56. This subcomponent aims to improve food and nutrition security for smallholders by supporting up to three priority value chains per participating country, focusing on backward and forward segments of the value chains, with tangible positive impacts on regional market integration, food security, nutrition and reduced food loss and waste (FLW). The focus will be on private businesses led by youth and women, who will be the primary beneficiaries. Priority regional value chains may include cereals (such as maize, rice), beans and pulses (soybeans, cowpeas), roots and tubers (cassava), and highly nutritious foods (fruits and vegetables such as onions and tomatoes), as well as livestock (such as poultry). Under this subcomponent, FSRP will support interventions to:

(a) **Strengthen value chain organization and financing.** Subcomponent 3.2 will support the restructuring and governance of priority regional value chains. For value chain players organized in PAs, this subcomponent

will use matching grants[41] to facilitate access to financing for their activities. For value chain entrepreneurs, including youth and women, this subcomponent will provide support to invest in activities such as aggregation centers, improved cold-chain infrastructure that reduce food loss and waste (FLW), storage facilities to reduce post-harvest losses, warehouse receipt systems, agro-processing, and agricultural trade services, all aimed at integrating the selected value chains with regional markets. Each PIU will recruit a service provider to help beneficiaries develop bankable business plans, link the players to financing institutions, and provide technical support to PIUs in implementing Subcomponent 3.2. FSRP will collaborate closely with IFC to enhance local producers' capacities, as well as facilitate access to finance and risk mitigation mechanisms for agribusinesses and smallholder farmers.

(b) **Support agricultural competitiveness and market access infrastructure.** This subcomponent will assist governments in strengthening the capacity of national institutions to develop standards and regulations for improved product quality, SPS services, certifications, traceability, and quality control, which will support growth in the agricultural sector and agricultural trade in the region. This support will include establishing certified laboratories; strengthening capacity in SPS policy and regulatory issues; and establishing product standards in alignment with the Codex Alimentarius and with respect to various aspects of agricultural policy in countries seeking accession to the African Continental Free Trade Area (AfCFTA) and WTO. In addition, this subcomponent provides support for critical investments in public infrastructure to leverage private financing along value chains, such as critical market and post-harvest infrastructure.

(c) **Strengthen multi-stakeholder coordination and promote a private sector enabling environment**. Subcomponent 3.2 will strengthen multi-stakeholder mechanisms for coordinating selected value chains (including the participation of national farmer and private sector organizations in formulating policies and programs and in their implementation) and more broadly improving regional agriculture trade. It will also support public-private dialogue (PPD) to catalyze policy reforms in agri-food and input trade (e.g., to identify and overcome policy barriers of selected value chains). Through this subcomponent, the FSRP will collaborate with IFC to harness its extensive knowledge on private sector development for upstream agribusiness, including support: (i) to governments for structuring public-private partnerships; (ii) for building linkages of smallholder farmers and Micro, small and medium enterprises (MSMEs) to agricultural value chains through the provision of advisory services and partnerships; and (iii) to promote a conducive environment for agribusiness. At country level, the program will recruit a certified facilitator to help conduct PPDs. This expert will also support the Agriculture sector working group in prioritizing and monitoring policy reforms to enhance the business environment in the agriculture and food sectors.

57. Gender. Component 3 includes support for women to gain better access to assets and services they need to improve the commercialization of their agricultural produce. Specific activities will include: support for women's access to equipment within cooperatives at reduced cost; provision of tailored training for women on local products, good hygiene practices, commercialization, and Hazard Analysis and Critical Control Points (HACCP) or product certification processes; and support for women to access processing and conservation equipment by setting a quota of 35 percent women beneficiaries. In addition, several selected value chains traditionally have a strong presence of female farmers (for example, tomatoes, rice, shallots/onions, milk, and cowpeas), and dedicated interventions will therefore be considered for these farmers (see Annex 15).

[41] The matching grant subprojects would be for farmers groups and enterprises operating on targeted value chains for each country. The selection and approval of the subprojects will be made by a selection committee. Subproject beneficiaries will provide cash contribution up to 20 percent for subprojects financing. The country-level PIMs will provide specific information on the ILM subprojects.

58. ECOWAS will implement the regional-level activities of Component 3, and participating countries will be responsible for the complementary national investments. Detailed implementation mechanisms will be developed in the Program Implementation Manual (PIM). ECOWAS will serve as a key link between Subcomponents 3.1 and 3.2 by coordinating regional and subregional activities related to selected value chains and trade corridors, as well as by maximizing the spillover effects on value chain development of activities to strengthen the Regional Food Security Reserve.

COMPONENT 4: CONTINGENT EMERGENCY RESPONSE COMPONENT (CERC) *[US$0.0 million IDA]*

59. Component 4 is a mechanism for financing eligible expenditures in the event of an emergency precipitated by a natural disaster. Activation of this component allows funds to be disbursed rapidly to reduce damage to infrastructure, ensure business continuity, and recover more rapidly from a disaster. Following a major disaster, the affected participating country may request that the World Bank channel resources from other FSRP components into the CERC. As a condition for disbursement, an Emergency Response Manual (ERM) will be developed for each country, stipulating the fiduciary, safeguards, monitoring, and reporting requirements related to invoking the CERC, as well as other coordination and implementation arrangements.

OMPONENT 5: PROJECT MANAGEMENT *[US$32.7million IDA; US$1.0 million GAFSP; US$3.1 million Dutch TF]*

60. This component will focus on all aspects of project management including equipment and materials, compliance with fiduciary, procurement and safeguards (environmental and social) requirements, M&E and impact assessment, knowledge management and communication.

61. At the regional level, the activities will be overseen by the Regional Steering Committee (RSC) under the leadership of ECOWAS and the component coordination units of ECOWAS (mandated to ARAA), CILSS (for Component 1) and CORAF (for Component 2). On the national level, the activities will be performed by the PIUs.

D. Program Costs

62. The total cost of Phase I of FSRP is estimated at US$401.0 million including US$330.0 million equivalent of IDA financing (see below Table 3).

Table 3: Program financing, Phase I of the FSRP (US$401 million)

Country	National/regional IDA	Credit	Grant	Total
Phase I				
Regional Organizations			**30**	**30**
ECOWAS	*Regional IDA*	0	10	10
CILSS	*Regional IDA*	0	10	10
CORAF	*Regional IDA*	0	10	10
Burkina Faso		**45**	**45**	**90**
	National IDA	15	15	30
	Regional IDA	30	30	60
Mali		**30**	**30**	**60**
	National IDA	10	10	20
	Regional IDA	20	20	40
Niger		**30**	**30**	**60**
	National IDA	10	10	20

	Regional IDA	20	20	40
Togo		**45**	**45**	**90**
	National IDA	15	15	30
	Regional IDA	30	30	60
GAFSP TF (Burkina Faso)		0	24	24
Dutch TF (ECOWAS, CILSS and CORAF)		0	22	22
GRiF (ECOWAS)		0	25	25
TOTAL		**150**	**251**	**401**

63. The Kingdom of the Netherlands has sent to the World Bank an expression of interest to contribute an additional US$22.0 million equivalent through a TF to bolster regional activities and capacity building. In addition to the US$10.0 million equivalent of IDA financing which each regional organization receives, (i) CILSS would receive an additional US$5.0 million equivalent; (ii) CORAF would receive an additional US$8.0 million equivalent; and (iii) ECOWAS would receive an additional US$9.0 million equivalent. The final approval of the Dutch authorities on this financing is expected before end of December 2021.

64. A US$25 million grant from the GRiF to support the risk management of the Regional Food Reserve is under preparation. Discussions with donors are ongoing and are expected to be finalized before March 31, 2022. The GRiF will finance premiums for an insurance arrangement as a backstop of the West Africa Regional Food Security Reserve (RFSR). The grant will also strengthen the capacity in ECOWAS to technically support member countries on integrated agricultural risk management and agricultural risk financing. The grant will finance the structuring, placement, and implementation of a risk transfer solution as well as TA and capacity building associated with design, implementation, and impact assessment of the solution.

65. In an event when the Dutch funding and/or GRiF financing will not materialize, the project will berestructured and downscale the regional level activities and corresponding results indicators for which both financings are contributing. Specifically, it is the number of vulnerable people who can be supported (for one month) by the regional food security reserve for the GRiF and the operationality of the trade observatory number of technologies shares with farmers for the Dutch financing.

E. Rationale for World Bank Involvement and Role of Partners

66. FSRP offers a unique opportunity for the WBG to work collectively with West African regional organizations and countries to address key drivers of food insecurity in the region and to build the resilience of the food system. The World Bank's intervention under a programmatic framework has the potential to bring about the consolidation of a functional institutional ecosystem and greatly enhanced coordination and cooperation between countries in West Africa. No other institution has (i) the requisite regional resource envelope, (ii) medium-term planning horizon, and (iii) convening power to accompany this process at the regional level across several regional bodies:

(a) **Resource envelope.** The World Bank works with its partners to build food systems that can contribute to feeding vulnerable people by improving food security, promoting nutrition-sensitive agriculture, and improving food safety. The World Bank is a leading financier of food systems, with US$5.8 billion in new IBRD/IDA commitments to agriculture and related sectors in 2020. Aside from addressing immediate food security needs, about half of IDA's new commitments for food security focus on longer-term investments

in resilience, reflecting IDA's stepped-up focus on the underlying drivers of food insecurity since the 2008 food crisis.

(b) **Medium-term horizon.** The World Bank has focused on the underlying drivers of food insecurity through efforts to increase climate resilience, reduce the risk of conflict, and limit the negative impacts of shocks such as the COVID 19 pandemic. Increased financing to food systems since 2008 has delivered value for money with good execution and improved quality of programs, as assessed by the World Bank's Independent Evaluation Group (IEG). Yet as financing for food security has increased, so has the magnitude of the challenge, buffeted by strongly rising climate headwinds as well as conflicts, especially in the Sahel and West Africa.

(c) **Convening power.** The FSRP proposes to work with a range of partners in the region to ensure that the best available knowledge and capacities are harnessed. In addition to the regional bodies, partners include FAO, the CGIAR, International Institute of Tropical Agriculture (IITA), World Meteorological Organization (WMO), the Climate Risk and Early Warning Systems (CREWS) initiative, the Organisation of Economic Co-operation and Development (OECD) Club du Sahel, International Fund for Agricultural Development (IFAD), African Development Bank (AfDB), AFD, the Kingdom of Netherlands, and others.

F. Lessons Learned and Progress on Learning Agenda

67. The design of the program capitalizes on lessons learned and recommendations from past and ongoing experiences from IDA and other partner-financed operations in the region. Its design builds on the lessons and responds to the core recommendations of the *2019 World Bank review, Financing for Food Security: Four decades of World Bank support to respond to crisis and prevent famine*. It also draws lessons from and aims to improve on the design of previous initiatives by incorporating a number of key insights:

(a) **Weak institutional coordination hinders effective data generation, information service delivery, and easy access to information necessary for timely decisions on issues related to food security**. A number of national and regional meteorological and hydrological agencies are engaged in seasonal forecasting and monitoring across West Africa and the Sahel. Weak linkages and coordination between institutions—global centers of excellence, AGRHYMET, the African Centre of Meteorological Applications for Development, NMHSs, and other information-generating institutions—at the national and regional levels create inefficiencies and the potential for duplication of effort. Partners of the *Cadre Harmonisé* and AGRHYMET have difficulty accessing information on food security collected at the subnational, national, and regional levels, given inconvenient communication formats and platforms. There is a strong need to: (i) streamline the "chain of information" across regional, national, and subnational levels to provide demand-driven information services by leveraging state-of-the-art technologies and new business models and revamping communication and knowledge exchange formats; (ii) prioritize services; and (iii) improve delivery. As an entry point, FSRP will re-organize and structure the system in a modular way. It will provide support for modules for which public intervention is critical; other modules may be strengthened in partnership with different partners, including the private sector. Through a modern database management application, the upgraded, digitized system will consolidate agroclimatic and food security information and should incentivize innovative and sustainable delivery models.

(b) **New digital extension tools have the potential to enable widespread access to information.** Recent breakthroughs in information technology and the increasing penetration of mobile phones in West Africa make it possible to disseminate agronomic, climate, and market information to a greater number of farmers than ever before. FSRP will build on this momentum to: (i) harness disruptive technologies as a means of boosting agricultural productivity while improving nutritional outcomes and resilience to climate

change; and (ii) provide data analytics and agriculture intelligence solutions backed by data infrastructure, remote sensing, and mapping technologies, precision agriculture tools, and computing power to enable data-driven decision-making by policy makers, public agencies, and private service providers.

(c) **An integrated landscape approach that encompasses the spatial, ecological, cultural, and socio-economic dimensions of natural resource use will foster the comprehensive, sustainable management of those resources and contribute to the Sustainable Development Goals (SDGs) across West Africa.** There is growing concern that traditional sectoral approaches are inadequate to meet global challenges such as land and water degradation, biodiversity conservation, and food production; achieve SDGs; and efficiently contribute to development in the Sahel and West Africa. Approaches to date have consistently lacked an integrated development vision that considers all components of local ecosystems, contributing to the double marginalization of Sahelian rural populations. It is at the landscape level where farmers, foresters, agencies, non-governmental organizations (NGOs), businesses, and civil society encounter concrete development demands, and where land management systems have to balance the trade-offs between them. Local actions of land managers can either directly or indirectly align with most land-related SDGs.[42] As land resources are limited and many West African landscapes have to accommodate multiple land uses, FRSP proposes to promote multifunctional, integrated, and collaborative management solutions as an essential component of SDG implementation in West Africa. In this regard, FSRP will support adoption of the *integrated landscape approach* to manage natural resources in a coherent, comprehensive, and sustainable manner. These landscapes play a crucial role in regulating climate by producing oxygen and absorbing CO_2, and they provide a wide range of valuable ecosystem services, regulating local water cycles, protecting land against floods, soil erosion, and siltation, and providing habitats for wildlife that work synergistically with the cropping system. Furthermore, ILM will help, through national and regional institutions, to promote local actions that can be introduced to build resilience at different scales (local, national, and regional) and therefore to inform the policy process.

(d) **The adoption of innovative technologies and practices by farmers is a key driver for increasing agricultural productivity.** As agricultural research capacity has improved in the West Africa subregion over the years, a large stock of technologies and innovations has become available to support a potential increase in agricultural production and processing. It is estimated that more innovations are now available in the subregion than were available in India at the start of the Green Revolution. The main challenges now lie in supporting the regional capacity for adaptive research and for accelerating the adoption of technologies and innovations by sector stakeholders, especially through an increase in private sector participation and investment, with support for the emergence of SMEs. FSRP will work to strengthen regional research capacity and increase adoption, including by facilitating private sector participation.

(e) **A conflict-sensitive approach is valuable in all contexts and essential in settings where resource scarcity, inequality, tensions between groups, and other factors can spur conflict and undermine prospects for positive development outcomes**. To mitigate unintended negative effects of development interventions and, on the other hand, maximize their positive impacts in building cohesion and reducing tensions between different livelihood groups, FSRP will adopt a conflict-sensitive approach, particularly for activities planned under Subcomponent 2.2. Program activities will be designed, and their potential positive and negative impacts monitored, based on a close contextual understanding of social dynamics, traditional livelihoods, the state of land and natural resources, and the results of conflict analyses in the targeted

[42] For example, by contributing to food security and an end to hunger (SDG 2), to healthy lives and well-being (SDG 3), to sustainable water management (SDG 6), to modern energy supply (SDG 7), to combat climate change (SDG 13), and to the sustainable use of terrestrial ecosystems (SDG 15) etc.

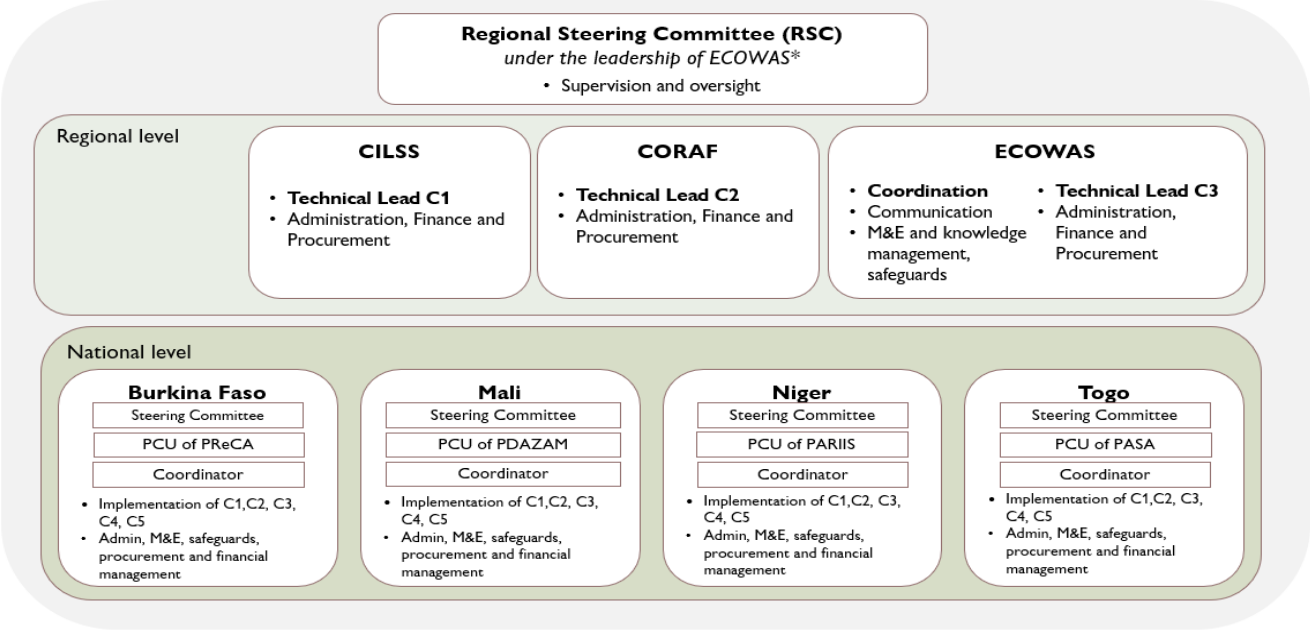
areas. In program areas characterized by inequality, scarcity, conflict and fragility risks, and intergroup tensions, the approach will incorporate participatory FCV mapping to ensure that the project has a comprehensive and local perspective on FCV dynamics. The role of municipalities, local civil society, and private sector partners will be crucial in assessing risks and opportunities related to conflict and tensions. Conflict-sensitivity principles will be applied to all contexts, regardless the severity or frequency of violence, even in situation where underlying tensions have not yet resulted in violence; where they have, the project will coordinate with humanitarian, security, and other development actors to ensure that program activities are aligned with and informed by common security assessments. The deliverable "Hotspots, Fragility, and Integrated Approaches", that is currently being developed under the accompanying ASA FSRF, will contribute a review of conflict-sensitivity best practices related to ensure that FSRP activities, particularly those of Component 2, are conflict-sensitive.

III. IMPLEMENTATION ARRANGEMENTS

A. Institutional and Implementation Arrangements

68. Given growing security, climatic, and SPS risks affecting crop production and the overall resilience of food systems across West Africa, the implementation and supervision of the MPA and respective country-based operations will require an adaptive approach. To achieve their objectives, the individual operations under the MPA will rely on strong coordination among regional and national implementation structures. At the same time, the implementing organizations will also require a coordination and feedback mechanism to document and assess the cumulative achievement program objectives. Figure 7 and the discussion that follows summarize the institutional arrangements for implementing FSRP at the regional and country level.

Figure 7: Institutional arrangements for implementing the West Africa FSRP



Overall and Regional Level Implementation

69. At the regional level, ECOWAS will monitor and coordinate the overall implementation of the program. The program will be overseen by a RSC chaired by the ECOWAS Commissioner in charge of Agriculture, Environment, and Water Resources (or representative) and will include, among others, representatives of the WAEMU Department of Rural Development, Natural Resources and Environment (or representative), CILSS, CORAF, the Network of Farmer and Agricultural Producer Organizations in West Africa (ROPPA),[43] the regional private sector organizations, the West Africa Women's Associations, AGRHYMET Regional Center, INSAH, and each of the ECOWAS and WAEMU Member States. The RSC will meet at least once every fiscal year to ensure the consistency of program activities with the vision and the projects and programs of the Recipients.

70. Implementation will be structured as follows: (i) CILSS (AGRHYMET) will coordinate overall implementation efforts under Component 1; (ii) CORAF under Component 2; and (iii) ECOWAS under Component 3, supported by AKEDEMIYA 2063 and IFPRI, leveraging an on-going collaboration with ECOWAS focusing on (i) M&E and mutual accountability through ex-ante analysis, performance tracking, and impact assessment; (ii) agricultural technology evaluation and prioritization; (iii) production systems tracking and yield assessment through remote sensing and machine learning; (iv) interactive Geographic Information System (GIS)-based data management infrastructure; and (v) policy support, capacity building, tools, and methodologies for use by local analysts and planners. The regional partners will implement or delegate activities at the regional level. Countries will implement or delegate national-level activities, supported by regional partners providing guidance and support, including mobilizing specialized TA, fostering knowledge management and exchanges, reporting on progress related to the effectiveness of risk mitigation mechanisms, the reduction of food and nutrition insecurity, and market integration and trade.

71. ECOWAS will delegate the implementation of regional fiduciary activities under Component 3 to its Regional Agency for Agriculture and Food (RAAF/ARAA). ARAA is mandated to ensure TA on programs and regional investment plans that help to operationalize ECOWAS regional agricultural policy, relying on institutions, regional organizations, and stakeholders with proven expertise. Its mission is to: (i) strengthen the technical capacity for intervention and action of the ECOWAS Department of Agriculture, Environment, and Water Resources in implementing investment programs to enable the Department to fully play its regulatory role (regulation, monitoring, evaluation, and so on); (ii) coordinate, in a responsible manner, the activities and fields of intervention of specialized technical institutions in the agricultural and agri-food sectors; and (iii) contribute to capacity building for regional and national actors in the preparation of projects and the implementation and follow-up activities.

Individual Country Level Implementation

72. At the country level, the institutional and implementation organization of the FSRP share a number of features, including a common overall structure consisting of a National Steering Committee and a PIU embedded in the line ministry.

73. Program implementation will be the responsibility of the respective Borrowers and conducted through World Bank funded PIUs that are already in place, namely: in Burkina Faso by the PIU of the *Projet de Résilience et de Compétitivité Agricole* (Burkina Faso Agriculture Resilience and Competitiveness Project) (PReCA, P167945); in Mali by the PIU of the *Projet de Développement de la Productivité et de la Diversification Agricole en Zones Arides et Semi-arides* (Mali Drylands Development Project) (PDAZAM, P164052); in Niger by

[43] Réseau des organisations paysannes et de producteurs de l'Afrique de l'Ouest.

the PIU of the *Projet d'Appui Régional à l'Initiative pour l'Irrigation au Sahel* (Sahel Irrigation Initiative Support Project (PARIIS, P154482); and in Togo, by the PIU of the *Projet d'Appui au Secteur Agricole* (Agriculture Sector Support Project) (PASA, P118045). Where needed, country-based implementation structures will be strengthened through the recruitment of additional staff/consultants responsible for program management tasks, including administration, M&E, communication, safeguards (including those related to gender-based violence (GBV), sexual exploitation and abuse (SEA), and sexual harassment (SH)), procurement, and financial management (FM). In each PIU, experts from the different technical disciplines (agriculture, ILM, water management and irrigation, hydromet) will be contracted as needed.

74. Each country will establish an FSRP National Steering Committee to provide policy guidance. The committee will meet at least twice each fiscal year to undertake, among other tasks, the review and approval of the draft Annual Work Plan and Budget (AWPB), approval of the annual report, and a review of the status of implementation progress. The countries will send representatives to the RSC.

75. Each country will prepare a detailed PIM that will incorporate all operational details at the national level, including technical activities, the M&E manual, as well as administrative and fiduciary procedures.

76. At the local level, communities will be involved in the identification of priority zones, selection of priority activities, and validation and implementation of the ILMP. To support these efforts, NGOs or facilitators working with local organizations (or both) will be hired, depending on the country context.

B. Results Monitoring and Evaluation Arrangements

77. An M&E framework for the program has been developed, based on the results framework for each operation at the country level and supplemented by the regional level. The prospective framework provides a menu of results indicators to be customized for each operation, together with performance benchmarks. The results framework includes two indicators to track progress on gender gaps.

78. The regional partners and national PIUs will be responsible for the internal monitoring of program outcome and output indicators as defined in the results framework. Each M&E unit, as well as all key implementing entities, will produce semi-annual progress reports along with notes synthesizing information on risks, resilience, and food security at the level of program beneficiaries. External service providers will be recruited to organize the baseline and evaluation surveys. The evaluation will pay particular attention to evaluating the impact of the program on women farmers, and the monitoring system will include relevant indicators for women in the results chain to track progress in implementation (outputs and process indicators).

79. Recognizing that learning from the experiences of participants in key food system resilience areas has significant potential to improve the response to food and nutrition insecurity and food system resilience in current and future phases of the program, participating countries and regional organizations will ensure that such insights are synthesized and shared.

80. External monitoring (supervision and evaluation) and implementation support, including monitoring of obligations under the Environmental and Social Framework (ESF), will be the responsibility of the respective governments of participating countries in close collaboration with the World Bank. ECOWAS, in partnership with CILSS and CORAF, will be responsible for monitoring program outcomes and impact, including their own ESF obligations, at the regional level, by: (i) subcontracting with appropriate regional and international agencies to update studies on the region's food systems resilience and agricultural market integration; (ii) producing an annual consolidated report, based on reports of participating countries and their specific studies, to be shared with all ECOWAS countries; (iii) informing participating countries on a yearly basis on implementation progress and the use of funds transferred from country proceeds, with all relevant documents (including financial

statements and audits, and progress reports) as approved by its RSC; and (iv) maintaining the web-based databases on grant administration and results while developing and maintaining an agricultural research resource database on publications and research skills available in the region.

81. Establishing a monitoring system for ILM activities. A simple and efficient monitoring system will be designed and put in place to assess land management decisions against multiple landscape objectives and stakeholder needs. The World Bank–supported Geo-Enabled initiative for Monitoring and Supervision (GEMS) system (or a similar system) will be used to monitor results. GEMS allows interventions to be geo-referenced for digital mapping and overlaying with projects from other development partners; of particular relevance for ILM, GEMS is also useful for establishing a baseline for carbon accounting and understanding changes in carbon sequestration in soils and on land. That information can contribute to assessments of the potential to mobilize climate finance to sustain funding beyond the life of the program. GEMS is also relevant in FCV settings, and in this regard the program can draw on experience with a pilot Local Development DRM/FCV Risk Identification and Response Tool developed in Guinea. That tool uses participatory scenario development and can be integrated into an IDA operation; it is currently deployed in the Lake Chad Regional Recovery and Development Project (P161706).

82. Impact evaluation (IE). The World Bank will explore additional TA to incorporate one or more multi-country IEs using rigorous methods, such as randomized controlled trials, to generate high-quality evidence on the effectiveness of the program interventions and/or alternative approaches implemented through the program. This activity will be structured to achieve two objectives: first, to ensure evidence generated from other IEs in similar contexts informs program implementation; and second, to generate lessons across multiple countries for the design of subsequent phases of the program and for similar operations elsewhere in the region. The detailed scope for this activity will be developed in the first year of implementation together with the stakeholders in each country. Potential focus areas include uncovering the food security and resilience impacts of climate and weather advisory services, sustainable land and water management technology adoption, and regional trade facilitation. This activity will involve setting up a data system to track key market, productivity, and food security indicators at a high frequency, in order to capture their responses to climate shocks and evaluate the extent to which the program interventions support the capacities of target communities to absorb these shocks and recover.

C. Sustainability

83. Institutional sustainability. FSRP aims to work with and build on the current institutional ecosystem for food system resilience, which comprises multiple bodies and systems. Learning from experience, the program focuses especially on addressing the difficulties that regional organizations encounter in sustaining core staff and operations after programs close. To incentivize progress, the three regional implementing organizations are committing to contribute an increasing share of counterpart financing as the program progresses. To achieve this goal, FSRP will work with each regional organization to develop two types of income streams:

(a) **Domestic resources.** The willingness of member countries to contribute to the budgets of regional organizations depends on ownership of the program and the perceived value-added of regional organizations. Program preparation and design reflect these considerations. For example, the preparation of FSRP has been led by regional organizations, and the design of the program has emerged through broad-based consultations to ensure that FSRP objectives and activities are aligned to the greatest possible extent with Borrowers' highest priorities and that sufficient resources are allocated to regional organizations to support impactful activities. FSRP also supports ongoing reforms to streamline and improve the reliability of country contributions (for CILSS, for instance). In addition, tailored funding mechanisms for several

systems supported by FSRP were also developed or consolidated, such as the external levy to fund the regional food reserve.

(b) **Revenue generated through service provision and collaboration with the private sector.** The FSRP intervention areas offer a range of opportunities for regional organizations to generate income from the commercialization of services already on offer, such as climate services under Component 1 and research and extension services under Component 2. CILSS has already demonstrated the viability of this approach, deriving a rising share of its annual budget from selling agricultural inputs and providing training services.

84. Technical sustainability. All interventions under all program components should have a lasting impact. Under Component 1, for example, the program seeks to involve private providers in the delivery of technical services through self-sufficient business models. Under Component 2, the regional research system will be consolidated to operate under a model that is not dependent on project funding (Subcomponent 2.1), and community engagement in meaningful participatory planning will reinforce community ownership of program activities (Subcomponent 2.2). Under Component 3, the program will maximize private sector leadership by rigorously applying the MFD approach and relying on existing commercial structures (financial institutions, for example) to deliver support.

IV. PROJECT APPRAISAL SUMMARY

A. Technical, Economic, and Financial Analysis

85. The economic and financial analysis (EFA) demonstrates the economic justification of the first phase of FSRP using the cost-benefit analysis methodology. The EFA focuses on (i) estimating the benefits generated by Subcomponent 2.2 *Strengthening of Regional Food Security through ILM* – as the main intervention bloc with the largest budget allocation, and (ii) the systemic benefits of raised resilience by estimating climate change induced losses that can be avoided through program interventions. The analysis used a standard cost-benefit methodology, based on estimates derived from with-project (WP) and without project (WOP) crop or activity models in the target areas. Details on the methodology can be found in Annex 10.

86. Overall, the EFA results indicate that the FSRP interventions as a whole are economically justified, generating an indicative net present value (NPV) at 6 percent of the additional benefits of US$244.0 million and an economic internal rate of return (EIRR) of 16.5 percent (over a 15-year period and on a budget of US$330 million), not accounting for environmental externalities. At country level, the returns on investment vary, with NPVs ranging from US$40.2 million in Niger to US$95.3 million in Burkina Faso, and EIRR from 14.2 percent in Togo to 18.4 percent in Mali. These economic results are satisfactory, given that several other program benefits (such as better public services for the agricultural sector, improved nutrition, additional spillover effects outside the core intervention areas, etc.) could not be quantified due to limited data availability. In addition, these economic results are robust when testing several sensitivity scenarios, including reduced outreach or adoption, delays in implementation and cost overruns.

87. The valuation of environmental externalities further enhances the economic justification of FSRP. The project is estimated to reduce GHG emissions by 110,827 tCO2-e over 15 years. When evaluating these environmental benefits using the social price of carbon estimates, the overall economic results of the project increase to an NPV of US$246.7 million and an EIRR of 16.6 percent (assuming the low range pricing – increasing from 43 US$/tCO2eq in 2022 to 57 US$/tCO2eq in 2036) and to an NPV of US$249.5 million and an EIRR of 16.8 percent (assuming the high range pricing – increasing from 86 US$/tCO2eq in 2022 to 114 US$/tCO2eq in 2036).

Table 4: Economic Results of FSRP

		Burkina Faso	Mali	Niger	Togo	Total
NPV (@6%, 15-year)	US$ million	95.3	53.6	40.2	55.0	244.0
EIRR	%	18.0%	18.4%	15.6%	14.2%	16.5%

Rationale for Public Sector Provisioning/Financing

88. The program aims to address market failures and targets investments that are core public goods. At the same time, it will seek to leverage private investments—counterpart funds provided by beneficiaries (farm households), agribusiness, and other private entities—and trust-funded climate finance to provide results-based finance beyond program closing. Program investments focus on transboundary public goods, including:

(a) **Reduced environmental externalities in transboundary watersheds.** The program targets transboundary watersheds where downstream users are considerably affected by upstream activities, such as land degradation, high water usage, and agricultural pollution. In addition, climate mitigation benefits constitute a clear public good. Investments to strengthen the long-term provision of environmental services in these watersheds will probably not be made under market conditions and hence public investments are justified.

(b) **Stronger regional integration and collaboration.** The program aims at harmonizing a regional policy and regulatory framework to provide an enabling environment for value chain development.

(c) **Rural infrastructure that is under-supplied owing to failures in coordination and markets.** These investments typically justify public financing, but to ensure sustainability the program will give special attention to operation and maintenance (O&M) costs and efforts.

(d) **Timely availability of crisis-response financing.** International donors can be an important source of finance for responding to the humanitarian impacts of a shock or crisis, but funds tend to be delayed, enabling slow-onset crises such as droughts to worsen and increasing the costs of a response. Mechanisms that provide timely financing are essential for a more effective response.

B. Greenhouse Gas Accounting

89. The GHG accounting results indicate that FRSP could generate positive environmental externalities, with a total mitigation potential of 110,827metric tons of carbon dioxide equivalent (tCO_2-e) over 15 years. The results of the Ex-ACT analysis are summarized in Table 5: in each participating country, the resulting net emissions are negative, owing to higher reductions (from improved cropland management and land-use changes) than increases (from the introduction of flooded rice production and increased fertilizer use).

Table 5: GHG accounting results

	Total emissions, tCO2-e	Total emissions, tCO2-e/ha	Total emissions, tCO2-e/ha/yr
Burkina Faso	-54,205	-3.3	-0.2
Mali	-14,247	-2.8	-0.2
Niger	-8,592	-1.4	-0.1
Togo	-33,784	-5.2	-0.3
Total	**-110,827**		

C. Fiduciary

Financial Management

90. An FM assessment of the national and regional implementing entities was conducted, encompassing Burkina Faso, Mali, Niger, Togo, CILSS, CORAF, and ECOWAS. The objective of the assessment was to determine whether the FM arrangements of the respective implementing entities are adequate to ensure that: (i) program funds will be used for the purposes intended in an efficient and economical way; (ii) the program financial reports will be prepared in an accurate, reliable, and timely manner; (iii) program assets will be safeguarded; and (iv) the program is subjected to a satisfactory auditing process.

91. From an FM perspective, the program implementation arrangements do not feature the establishment of new institutions but rather rely on the national and regional institutions already in place. At the national level, the program will be implemented by the following entities, which will have fiduciary responsibilities under the program: the PIUs of PReCA (Burkina Faso), PDAZAM (Mali), PARIIS (Niger), and PASA (Togo). Responsibility for FM at the regional level is assumed by CILSS, CORAF, and ECOWAS through ARAA. All seven agencies have previous experience with the implementation of World Bank–financed investment projects, although additional expert support will be provided where and when needed. All of these agencies have been audited every year under either ongoing or closed projects financed by IDA. No significant audit findings have been reported.

92. Conclusion. The FM assessment finds that all implementing entities have basic FM arrangements in place, although it is critical to strengthen those arrangements to comply with minimum requirements under World Bank Policy and Procedures for IPF operations. The overall residual FM risk for the project is ***Moderate***. At the implementing agency level, this risk is deemed ***Moderate*** for Mali, Niger, Togo, CILSS, and CORAF. It is deemed ***Substantial*** for Burkina Faso and ECOWAS (for ECOWAS, this rating is mainly owing to the program's regional design, the number of stakeholders, and the fact that ARAA has no experience in managing World Bank–financed projects).

93. To mitigate fiduciary risk to the extent possible, the following actions need to be implemented: (i) update the FM manuals of procedures for the PIUs in Burkina Faso, Mali, Niger, Togo, CILSS, CORAF, and ECOWAS to reflect the specificities of this new program; (ii) prepare and adopt a PIM, including FM procedures; (iii) migrate the current computerized accounting systems for the four countries, CILSS, CORAF, and ECOWAS/ARAA to handle transactions under the proposed program; (iv) agree upon the Interim Financial Report (IFR) format for the program's quarter and semi-annual reports; (v) submit for World Bank no-objection the terms of reference (ToRs) for, and subsequently recruit and maintain, external auditors for Burkina Faso, Mali, Niger, Togo, CILSS, CORAF, and ECOWAS/ARAA; and (vi) strengthen the FM arrangements with the recruitment of: (a) a Senior Accountant, Accounting Assistant, and Assistant Internal Auditor in Burkina Faso; (b) an additional Accountant in Mali and Niger; and (c) an FM Specialist and Internal Auditor in Togo.

Procurement

94. Procurement under the proposed program will be carried out in accordance with the following World Bank procedures: (i) the World Bank Procurement Regulations (PR) for IPF Borrowers, dated July 2016 and revised in November 2017, August 2018, and November 2020; and (ii) "Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants," dated October 15, 2006 and revised in January, 2011 and as of July 1, 2016 and other provisions stipulated in the Financing Agreements, using the Standard Procurement Documents accompanying the Regulations.

95. All procuring entities as well as bidders and service providers (namely, suppliers, contractors, and consultants) shall observe the highest standard of ethics during the procurement and execution of contracts financed under the program in accordance with paragraph 3.32 and Annex 13 of the Procurement Regulations. When procurement is done in the national market, as agreed in the Procurement Plan, the country's own procurement procedures may be used with the requirements set forth or referred to in paragraphs 5.3 to 5.6 related to National Procurement Procedures. For all works contracts, procurements that apply standard procurement documents (SPD) will adopt World Bank provisions related to environmental, social (including SEA/SH and GBV), health, and safety (ESHS) risks and impacts. This includes codes of conduct that include prohibitions against SEA/SH.

96. Project Procurement Strategies for Development (PPSDs) and Procurement Plans. All FSRP implementing agencies have developed PPSDs. While open national competition is generally the preferred method, the market and security in some areas might lead to other options based on recommendations in the PPSD. Each PPSD is accompanied by a detailed Procurement Plan covering at least the first 18 months of implementation. The Procurement Plans have been approved at negotiations. During implementation, the Procurement Plans will be updated as required and at least annually, to reflect actual program implementation needs and improvements in institutional capacity.

97. Procurement capacity assessments. Consistent with the above procurement arrangements, procurement assessments have been carried out for the seven implementing agencies in accordance with the World Bank Procurement Risk Assessment and Management System (PRAMS). Annex 13 contains a full summary of the completed procurement assessments and suggested measures to address the inadequacies and risks identified.

98. Systematic Tracking of Exchanges in Procurement (STEP). FSRP will be implemented using STEP, a planning and tracking system, in accordance with clause 5.9 of the procurement regulations. Procurement Plans, their updates, and requests for prior reviews will be sent to the World Bank for clearance through STEP. Procurement activities not requiring World Bank prior reviews will be recorded in STEP as well.

99. The overall procurement risk is ***Substantial***, but after the implementation of the following proposed mitigation measures, the risk will be ***Moderate***. The mitigation measures include for each designated implementing agency: (i) finalizing a procurement strategy; (ii) renewing the employment of, or hiring on a competitive basis, a Procurement Specialist who is experienced and familiar with World Bank procurement procedures and policies, to be located in each implementing agency; (iii) training all program staff involved in the Procurement Regulations; (iv) developing a section on procurement procedures as part of the PIM to clarify roles for each team member involved in the procurement process, defining the maximum delay for each procurement stage (specifically with regard to review and approval systems, and the signing of contracts), and defining measures to fast-track procurement in eligible countries; (v) developing contract management plans for prior review contracts; and (vi) improving the filing system to ensure compliance with the World Bank procurement filing manual.

D. Legal Operational Policies

100. Each project under the program will identify whether these policies are applicable in the country:

	Triggered?
Projects on International Waterways OP 7.50	Yes
Projects in Disputed Areas OP 7.60	No

101. The Policy OP 7.50 (Projects on International Waterways) is applicable to this Program because the activities will involve the potential use and risk pollution of the Niger River, the Lake Chad, the Volta River and the Mono River. The exception to the riparian notification requirement under this Policy was approved by the World Bank on September 14,2021.

E. Environmental and Social Standards

102. **Environmental risks,** both contextual risks and potential risks induced by the program, are deemed ***Substantial*** due to the unique and extensive diversity present in the environments where the program will operate. The activities to be funded are expected to have predominantly positive environmental impacts. The main negative environmental risks or impacts are related to natural resources natural resources (water, soils, vegetation) and sensitive biodiversity in the areas where the program will operate. The potential for cumulative impacts exists, but they can be readily avoided or mitigated by adequate mitigatory and/or compensatory measures.

103. **Social risks,** both contextual risks and potential risks induced by project investments, are deemed ***Substantial***. Key risks include differences in institutional capacity and readiness at both the national and regional levels; FCV risks; possible physical and economic displacement impacts from project activities; risks related to SEA and violence against children; and the exclusion of women, migrants, refugees, persons with disabilities, the landless, elders, and youth from participating in and benefiting from the program if it is not properly monitored or designed. Additional risks are related to labor risks (including child labor); community health and safety; social fragmentation and disruption of traditional livelihoods; and stakeholder risks. Given the expanded scope of the ESF and the lack of experience and familiarity with the ESF in the PIUs, the Borrowers' institutional capacity to implement FSRP under the ESF is considered weak.

104. The program will potentially produce social benefits for participating farmers, local communities, and vulnerable groups (including pastoralists, women, and youth), such as increased technical capacity; opportunities to access financial services and support for SMEs; enhanced food security and agricultural risk management at the regional and national levels through the use of digital technology; improved access to communications and early warning systems; community development; increased resilience of the food system (especially of critical commodities and value chains); greater resilience to climate shocks and food security crises; and reduced risks of social fragility and insecurity. In addition, the program has developed a detailed Gender Action Plan (Annex 15) to support the closing of gender gaps and ensure that women fully benefit from program activities.

105. The overall **GBV/SEA/SH risk** for this program is rated ***Substantial***.[44] Drivers of risk include context-specific risks, such as high rates of child marriage and female circumcision, general social acceptability of GBV, conflict, high risks of human trafficking, and lack of legislation on domestic violence and SH in public places across the countries. The number of women farmers in the region increases risks that program staff, often mostly male, may come into contact with beneficiaries under a power dynamic that increases risks of SEA/SH. Aligned with the requirements outlined in the SEA/SH Good Practice Note,[45] the ESF requirements, and a survivor-centered approach, the program will further assess risks of GBV/SEA/SH as part of the social assessment and reflect the findings in key safeguard instruments, contractual obligations, the PIM, and other key documents related to program implementation.

106. **Supported by the World Bank, each Borrower has the overall responsibility for assessing, managing, and monitoring environmental and social risks and impacts throughout the program life cycle** to meet the

[44] Except for Togo which is rated moderate for SEA/SH risk.
[45] World Bank (2020), "Addressing Sexual Exploitation and Abuse and Sexual Harassment (SEA/SH) in Investment Project Financing involving Major Civil Works." *http://pubdocs.worldbank.org/en/741681582580194727/ESF-Good-Practice-Note-on-GBV-in-Major-Civil-Works-v2.pdf*

requirements of the Environmental and Social Standards (ESSs) in a manner and within a timeframe acceptable to the World Bank.

107. From both an environmental and social point of view, and in light of the program and social risk management design, the program is expected to have positive impacts on agro-pastoral systems and members of rural communities. Impacts on agro-pastoral systems will result from improvements in the sustainable management of agro-pastoral resources (land, water, grazing areas). Positive impacts on rural communities will result from strengthening their capacity to manage natural resources, encouraging better sharing of benefits from different types of activities, supporting the development of more sustainable landscape-based livelihoods, addressing gender gaps, and enhancing social inclusion. The program approach is participatory and inclusive, and in particular the activities under Subcomponent 2.2 will be initiated by the beneficiaries. Agricultural resource users and producers (including pastoralists, women, and youth) will benefit directly from a variety of investments aimed at rehabilitating their natural resources, creating new economic opportunities and growth, and strengthening their technical and management capacities. Small and medium-scale physical investments (including local utilities) should have a limited negative impact on Project Affected Persons (PAPs) in terms of physical relocation, land acquisition, or economic displacement (namely, on their incomes, livelihoods, or businesses). Forms of physical displacement are unlikely, but some forms of economic displacement cannot be excluded, with loss of land, assets, or more or less temporary access to these assets, which notably would give rise to a loss of income or other means of subsistence. The program will seek to incorporate traditional knowledge and local land management of users to enhance sustainability, inclusion, and reduce the risk of conflict.

Overview of Environmental and Social Standards Relevant to the Program

108. ESS1: Assessment and Management of Environmental and Social Risks and Impacts. All countries participating in Phase I of FSRP have developed an Environmental and Social Management Framework (ESMF) with a SEA/SH Risk Mitigation and Response Action Plan. The ESMFs have been updated with the results of consultations, and a final version was submitted to the World Bank and disclosed prior to appraisal[46]. These ESMFs provide an overarching and comprehensive area-based assessment. For subprojects, specific technical studies and designs have already started during program preparation. During implementation, as more information and preliminary designs become available, Specific Environmental Social Impact Assessments (ESIAs) for each subproject, and site-specific Environmental and Social Management Plans (ESMPs), including specific SEA/SH Risk Mitigation and Response Action Plans[47] based on the general plan in the ESMFs, will be prepared. Following these assessments, any additional instruments required—for instance, a Construction Site Security Plan, Cultural Heritage Management Plan, Guidance on Environmental, Health and Safety (EHS), Conflict Risk Management Plan, and Cultural and Livelihoods Impact Assessments—are included in the Environmental and Social Commitment Plan (ESCP). The recipents have prepared ESCPs which have been agreed at negotiations and disclosed[48] on October 20, 2021.The ESCPs clearly outline responsibilities for managing SEA/SH risks. Program activities such as the development of drainage systems and construction of access roads and landfills are expected to have cumulative impacts. The Borrowers' supervision capacity will be strengthened throughout implementation by including an Environment, Social, and GBV consultant in each PIU.

[46]The following link provide access to the ESMFs and disclosure dates: *https://projects.worldbank.org/en/projects-operations/document-detail/P172769?type=projects*

[47] As part of preparation, the Borrowers will develop a GBV/SEA/SH Mitigation and Response Action Plan, with a budget in the ESMF/P, that will outline the project's prevention strategies, response protocol, and accountability mechanisms.

[48] *https://documents1.worldbank.org/curated/en/402881634753523698/pdf/Environmental-and-Social-Commitment-Plan-ESCP-West-Africa-Food-System-Resilience-Program-FSRP-P172769.pdf*

109. ESS2: Labor and Working Conditions. ESS2 is relevant to FSRP, which is expected to hire different categories of workers, including direct workers, contractors, and primary supply workers, depending on the nature of the investment. Most of these workers are expected to be hired from among the targeted beneficiaries, except for highly specialized labor, such as labor requiring an international bidding process. All of these workers will be subject to the requirements of ESS2. Labor Management Procedures (LMP) have been prepared and disclosed as part of the ESMF. They include measures to avoid discrimination and SEA/SH and prohibit child labor/forced labor. With regard to occupational safety and health issues, contractors will develop and implement an EHS plan in line with WBG guidelines. A Grievance Mechanism (GM) will be available for all direct and contracted workers. ESMPs will also be prepared during implementation. Bidding documents will be expected to include the standards of accommodation for workers. Codes of conduct will be prepared prohibiting GBV/SEA/SH, with clear and unambiguous language and related sanctions, and continuous training of workers and sensitization of communities will reinforce these codes of conduct, along with preventive measures in the GBV/SEA/SH Risk Mitigation and Response Action Plans.

110. ESS3: Resource Efficiency and Pollution Prevention and Management. This standard aims to promote the sustainable use of resources, including energy, water, and raw materials, and to avoid or minimize adverse impacts on human health and the environment by avoiding or minimizing pollution from program activities. ESS3 is considered relevant to FSRP, although the program is not expected to result in a large use of resources or their pollution. Risks and impacts will be addressed through appropriate mitigation measures.

111. ESS4: Community Health and Safety. This standard is relevant to FSRP, given that it may encompass construction and rehabilitation works that could lead to adverse health impacts on local communities (for example, dust and emissions). Increased traffic and use of machinery are likely to affect the safe movement of people. An increase in GBV/SEA/SH is also a risk related to the presence of laborers working on infrastructure and coming into contact with staff and female beneficiaries, with limited supervision. Complete guidance on EHS is being prepared as part of the ESMF to address all of the impacts and risks identified. If the implementing zone, workers, or contractors' equipment are protected by security personnel, it will be ensured that the security personnel follow a strict code of conduct and avoid any escalation of the situation. During implementation, as part of the monitoring and enforcement of the ESMF and related ESMPs, Borrowers will conduct a risk assessment of security arrangements and ensure that they operate in accordance with guidance available under ESS4. Furthermore, in accordance with the guidelines on Health and Safety of Populations, Borrowers are committed to avoiding or minimizing all risks and negative effects, with particular attention to groups that, due to their particular situation, can be considered vulnerable.

112. ESS5: Land Acquisition, Restrictions on Land Use, and Involuntary Resettlement. This standard is relevant to FSRP, because some activities may lead to physical and/or economic displacement. Given the insecurity in some areas, the mitigation hierarchy will be applied. The preferred option will be to avoid involuntary resettlement, but if it cannot be avoided, measures to minimize involuntary resettlement will include livelihood improvement plans for people affected by economic displacement/livelihood loss. Since the type and exact location of program activities are not yet known, each participating Borrower country has prepared a Resettlement Policy Framework (RPF) to provide guidance, if needed, on the preparation of site-specific Resettlement Action Plans (RAPs) during project implementation, in accordance with the agreed schedule defined in the ESMF and ESCP. The RPF was reviewed, consulted upon, updated in light of those consultations, and disclosed in the countries and on the World Bank website prior to appraisal. The RPF provides guidance and ensures that any activities financed under the program that require involuntary resettlement are properly managed in accordance with ESS5 and the related legal requirements of each participating country. It will include measures such as codes of conduct prohibiting SEA (for example, demanding sexual favors in exchange for not being resettled or accessing compensation), training for

those implementing involuntary resettlement activities, sensitization of affected communities, and clear links to the program GM.

113. ESS6: Biodiversity Conservation and Sustainable Management of Living Natural Resources. It is relevant to FSRP, as the proposed interventions could potentially have minor negative impacts on local biodiversity while promoting conservation of the remaining biodiversity endowment. Adequate measures will be taken in consideration of climate change, flood risk, and biodiversity issues to promote the sustainable management of living natural resources and adopt good practices that integrate conservation needs and development priorities.

114. ESS7: Indigenous Peoples/Sub-Saharan African Historically Underserved Local Traditional Communities. The relevance of ESS7 will be further assessed during implementation following site-specific ESIAs. There are no known Indigenous Peoples/Sub-Saharan Historically Underserved Traditional Local Communities in the program area. Should they be present, the program will undertake a social screening and, where relevant, implement appropriate measures per the requirements of the ESF.

115. ESS8: Cultural heritage. The environmental and social assessment will confirm the existence of tangible or intangible cultural heritage in program areas. This standard may be relevant as a result of activities under Subcomponent 2.2. If any cultural heritage is present that could be affected by FSRP activities in a country, the Borrower will design mitigation measures, in consultation with the relevant national authorities and experts, to protect it. A Cultural Heritage Management Plan will be prepared and consulted upon with affected local communities and other stakeholders. In addition, Chance Finds Procedures and cultural resources management are integrated in the ESMF (and will be integrated in any site-specific ESMPs).

116. ESS10: Stakeholder Engagement and Information Disclosure. Stakeholder Engagement Plans (SEPs) for each participating country and regional organization were prepared by the Borrowers, disclosed[49] before appraisal, and will be updated as needed. The SEPs are aimed at ensuring that the views and interests of all stakeholders, including the local communities and vulnerable individuals and groups, are taken into consideration throughout the program. The main FSRP stakeholders consist of relevant government agencies, local communities, businesses, land developers, small traders, women's farmer and pastoralist organizations, civil society organizations (CSOs), and academic/research institutions. Among other things, each SEP includes details on types, frequency, and approach to consultations, information sharing, and GM-related procedures. In addition, the Borrowers will design and implement a GBV-sensitive GM for the safe and confidential documentation, response, and management of GBV/SEA/SH complaints and will include targeted and regular involvement of women and other groups at-risk in stakeholder engagement. As part of the social assessment, Borrowers will map GBV services in areas of implementation and will develop response protocols for the timely, safe, and ethical referral of all survivors that may disclose GBV/SEA/SH incidents to the project. Awareness-raising activities on project-related risks of the project-level GM and the GBV/SEA/SH and mitigation strategies are included in the SEPs and will target communities and project workers, while contractual obligations in terms of GBV/SEA/SH mitigation will be enforced through the integration of specific provisions on codes of conduct addressing GBV/SEA/SH and training of workers.

117. To make the program fully compliant with the ESSs, the Borrowers have prepared, with the support of the World Bank, an ESCP, setting out the necessary actions to ensure that the project complies with the ESSs. The ESCP identifies the material measures and actions that are required as well as their timeframe and dates of completion and defines the responsibilities of different institutional partners.

[49] https://projects.worldbank.org/en/projects-operations/document-detail/P172769?type=projects

Gender

118. Specific gender actions designed to address gender gaps are embedded in all program components. A detailed Gender Action Plan (Annex 15) identifies concrete gender actions that will be implemented and budgeted for in each country, along with activity plans for the institutions involved. West African countries are slowly narrowing gender gaps that affect women farmers' food insecurity, poverty, and uptake of improved agricultural practices, but persistent gaps remain with respect to ownership of land and equipment and access to labor, quality inputs, finance, and markets. The actions planned under FSRP aim to consolidate and extend progress to date while addressing barriers that still limit women farmers' contributions to sustainable livelihoods and good nutrition in their communities.

119. All FSRP components address issues that are relevant for reducing gender gaps. Component 1 focuses on digital advisory services. Compared to male farmers, female farmers are known to make disproportionately less use of advisory services, have lower access to mobile internet (a 37 percent gap), own fewer mobile phones (a 13 percent gap), and have less access to internet-based solutions, leading to generally lower access to information. Component 2 focuses on food system resilience. Food insecurity is known to affect women more than men (25.2 percent versus 23.7 percent), and fewer female farmers adopt improved agricultural techniques owing to a lack of education, training, and agricultural equipment. In Niger, for example, equipment is owned by 2 percent of women compared to 17 percent of men. With respect to Component 3, focusing on food trade and markets, women have far less opportunity to commercialize their produce even if they are active in a value chain that presents opportunities for trade. The reasons for this gap are wide-ranging and include women's limited access to information or infrastructure to process, store, package, or market their products.

120. The program can be leveraged to close identified gender gaps in the region by: (i) targeting women beneficiaries as recipients of digital extension services and candidates to adopt integrated pest management technologies to improve productivity; (ii) establishing scholarships for female masters and doctoral students to close knowledge and opportunity gaps; (iii) providing targeted capacity-building events for women, developing dedicated tools to encourage women's uptake of ICT for e-learning, and finding ways to provide information to women farmers who have no internet access; (iv) developing technologies for agricultural intensification and land preparation; (v) supporting women's access to markets by mobilizing their attendance at fairs and training, and supporting women's cooperatives in strategically important value chains; and (vi) improving women farmers' production through improved certification and commercialization services, among others.

121. Gender gaps in access to assets and services significantly undermine women farmers' productivity and commercialization. FSRP will place particular emphasis on increasing women's access to irrigation assets and services to increase productivity, as well as their access to assets and services that support commercialization (see the specific gaps identified in Annex 15). The reduction of gender gaps will be measured through two intermediate indicators from the results framework: (i) women farmers having access to improved irrigation or drainage of services; and (ii) women farmers reached with assets or services to improve commercialization in selected value chains. In addition, a project development objective (PDO)-related indicator will address "Producers adopting supported agricultural technologies and services, including access to agro-meteorological information through digital channels," monitoring the percentage of women beneficiaries. Women's access to irrigation will be increased through: (i) the use of quotas for women to access irrigation services on private land; (ii) the settlement of women farmers on rehabilitated land equipped with irrigation facilities; (iii) the use of micro-irrigation, which is easier for women to access and use; (iv) the promotion of solar pumps to reduce labor; (v) the promotion of small-scale communal irrigation facilities for women; and (vi) the geographical targeting of women for land and water catchment restoration.

122. The program will also pursue actions to increase women's access to information and opportunities: (i) women-focused awareness raising and outreach activities on market, investment, and job opportunities; (ii) targeted support and TA packages for women entrepreneurs (in MSMES, for instance), women-led groups (CSOs), and women producers, including training in hard and soft skills (business plan development, mentorship, network support for market access, leadership trainings, and so on); (iii) subsidized access to inputs; (iv) provision of newly rehabilitated land, equipped with irrigation; and (v) forms of positive discrimination in the eligibility criteria and screening process for matching grants, and co-financing of grants benefitting women entrepreneurs (MSMEs), women-led groups (CSOs), and women producers.

123. The program will ensure that its M&E system fully integrates gender by: (i) developing a results chain (to be included in the M&E manual) that can track progress for women farmers; (ii) developing activity plans with budgeted gender actions and outputs; (iii) conducting quantitative and qualitative evaluations that assess FSRP impacts on women as well as the program's strengths and weaknesses in gender implementation, make any corrections as needed and draw lessons; and (vi) collecting information on women's experiences to develop case stories and best practices for dissemination and use in training materials.

Citizen Engagement

124. **The program explicitly supports the engagement and participation of stakeholders and beneficiaries** through consultative processes, engagement in local-level planning and monitoring, and feedback mechanisms to elaborate and adjust the ILM approach. Feedback mechanisms have been developed to ensure transparency, accountability, and learning, and continuous dialogue will occur with local beneficiaries and other stakeholders. For example, during implementation the program will give particular attention to consulting with local groups (such as CSOs) and traditional/local leaders to incorporate traditional and local knowledge in water and land management planning. The program will also support inclusion in access to economic opportunities, especially for those who are most vulnerable. The specific elements of the framework for citizen engagement include: (i) support for the engagement of local rural communities in landscape planning and management, including monitoring; (ii) support for community engagement in determining local investments; and (iii) a program-level feedback and GM, designed to process concerns and questions from beneficiaries and other stakeholders at various levels (regional to local), with to resolving concerns within specific timeframes. The protocol, mechanisms, and elements of the citizen engagement framework will be detailed in the PIM. The quality of implementation and progress will be monitored at both the regional and national levels, through supervision and dialogue.

V. GRIEVANCE REDRESS SERVICES

125. Communities and individuals who believe that they are adversely affected by a World Bank–supported project may submit complaints to existing project-level grievance redress mechanisms or the World Bank's Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to address project-related concerns. Program-affected communities and individuals may submit their complaint to the World Bank's independent Inspection Panel which determines whether harm occurred, or could occur, as a result of World Bank non-compliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the World Bank's attention, and World Bank Management has been given an opportunity to respond. For information on how to submit complaints to the Bank's corporate Grievance Redress Service (GRS), please visit: http://www.worldbank.org/en/projects-operations/products-and-services/grievance-redress-service. For information on how to submit complaints to the World Bank Inspection Panel, please visit *www.inspectionpanel.org*.

VI. KEY RISKS

126. The overall residual risk for FSRP is rated as *Substantial*, owing to the context in which the program will operate (protracted conflict, insecurity, and fragile governance) and the impact of the COVID-19 pandemic. Three of four FSRP Phase I countries are listed as FCV states. The risk ratings reflect experience gained through implementing other regional programs in West Africa, in particular WAAPP for risks related to Component 2, as well as the inherent risk in the activities proposed for Components 1 and 3.

127. Political and Governance risk is *Substantial,* given the potential for political uncertainty, fragility, and instability to delay implementation. The multidimensional crisis in the Sahel Region is the product of violent conflict, political instability, large-scale displacement, and deep fragility—all of which could deteriorate further. Every country in the region is either actively in conflict or dealing with its impact (including refugees). Once led by violent extremist groups exploiting political fragility at the periphery of the region, conflict has become more localized and widespread. Inter-community tensions are driving fragility in areas previously unaffected by violence, as distinctions between extremism, violent insurrections, community self-defense dynamics, and banditry become increasingly fluid. The rapid expansion of violence in the Sahel, particularly in Mali, Burkina Faso, and Niger, adds significant security risks to implementation, ranging from accessibility issues created by expanding red zones, to vandalism and the direct targeting of implementation, including personnel and assets, by violent extremist groups. Togo is not imminently threatened, but risks of the conflict spilling over from the Sahelian countries are taken seriously by the Togolese government. The security risk landscape in Mali, Burkina Faso, and Niger means that comprehensive planning is needed to implement FSRP. Since independence, 20 successful coups d'état have taken place in the Sahel, including five in the last 10 years. The latest occurred in Mali in May 2021. The transitional government put forward a roadmap that included elections within 18 months, yet the political outlook remains uncertain. The COVID-19 pandemic has only added to the region's challenges and potential domestic tensions, putting enormous strains on already limited resources.

128. *Mitigation.* Mitigating these political and governance risks will rely on national and international instruments. However, the FSRP involves a combination of policy dialogue, partnerships, and flexibility in project design and implementation. Continuous dialogue between the CMUs, FSRP team, and governments will be key to adapting program activities and priorities as needed. The increasingly fluid security situation will be addressed through risk-led program design and implementation of safeguard mitigation measures. Partnerships and close dialogue with the regional organizations and stakeholders involved in security, mediation, and diplomatic efforts will be key to maintaining a sound understanding of regional challenges and mitigating risks when they arise. ECOWAS has an active Protocol related to the Mechanism for Conflict Prevention, Management, Resolution, Peacekeeping, and Security and another on Democracy and Good Governance, which is a solid mitigation measure.

129. Macroeconomic risk is rated *Substantial*. The macroeconomic situation in West Africa has moved closer to instability as the pandemic has become more entrenched. Negative per capita income growth and increases in poverty are projected for all Sahel countries in 2020 as a result of the pandemic. Domestic and external shocks and policy slippages constitute substantial sources of risk in the region, especially with presidential elections on the horizon in Burkina Faso and Niger and the recent unconstitutional transition of power in Mali. Rising insecurity,[50] coupled with humanitarian expenses precipitated by the pandemic and rising flows of internally displaced people, could divert resources from other priorities and reduce the effort and ability of governments to sustainably

[50] In 2019, on average, security spending amounted to 3.3 percent of GDP. Tax revenue losses related to insecurity exert additional pressure on public finances.

implement planned reforms.[51] Adverse external shocks—larger-than-expected declines in the price of cotton, gold, or other export commodities, and rising oil prices—may put further pressure on the macroeconomic framework. This pressure would translate into a further slowdown in growth, reduced fiscal revenues, larger outlays, and larger fiscal and current account deficits, putting funding of the broader agricultural sector at risk. With the region's economies contracting, the duration of the pandemic uncertain, and the possibility that reduced fiscal space for rural development in one or more of the FSRP countries will constrain the program, the residual risk is considered "Substantial."

130. *Mitigation: To mitigate this risk, the FSRP will rely to the ongoing dialogue between the World Bank and the Borrowers on the macroeconomic framework.* In all Phase I FSRP countries, except Mali, the World Bank is providing support through Development Policy Financing (DPF) to accelerate inclusive, sustainable economic growth and mitigate macroeconomic risk. For instance, emergency COVID-19 crisis response DPFs have been prepared in Burkina Faso and Togo. Other programmatic DPFs, such as one supporting gender and other structural reforms in Niger, were adapted to include a COVID-19 response to protect lives and livelihoods. In the context of the Prevention and Resilience Allocation (PRA), Burkina Faso, Mali, and Niger have prepared strategies to address basic infrastructure deficits and tackle drivers of conflict in the affected regions, including support to improve the resilience of agriculture and the living conditions of farmers and herders. The implementing agencies of FSRP will closely monitor economic developments that could jeopardize the quality and regional nature of the program.

131. Risk related to Sector Strategies and Policies is rated *Substantial*. The sectoral strategies and policies for agriculture and trade in participating countries are broadly aligned with FSRP objectives, yet critical reforms should be initiated in some countries to ensure the sustainability of program activities. The regional nature of the program means that changes in sectoral strategy and policy in any participating country has implications for the performance of the others. As such the preparation of a new agriculture policy in 2025 to replace the current ECOWAP is critical.

132. *Mitigation:* Through its national and regional implementation arrangements (particularly the establishment of governance bodies with inclusive representation of key stakeholders), FSRP will serve as a coordination platform that is expected to consolidate regional cooperation in agriculture and food security. Furthermore, FSRP will directly intervene in sectoral strategies and institutional capacity building and will support the generation of knowledge and data to further develop and consolidate evidenced-based strategies.

133. Risk related to Institutional Capacity for Implementation and Sustainability is rated *Substantial*. The FSRP builds on the achievements and lessons of other regional projects and will continue to rely on the capacity of their implementing institutions. The program components also reflect the results of substantial analytical work, such as the 2021 *Blueprint for Strengthening Food System Resilience in West Africa*. On the other hand, ECOWAS and ARAA, its program-implementing unit, have not been involved directly in implementing IDA-funded programs in agriculture. Constraints in staff numbers and capacity limit the ability of ECOWAS to adequately plan, implement, and monitor programs. Given that each of the three regional organizations involved in FSRP will receive direct allocations of IDA funds, considerable emphasis must be placed on stimulating cooperation across agencies and seeking economies of scale, particularly in project management functions.

134. *Mitigation:* CILSS, CORAF, and ECOWAS will benefit from ad hoc technical support for the proper implementation of the activities assigned to them. Essential expertise to fill gaps in capacity in these institutions will be recruited, and AKADEMIYA2063 will be contracted directly to support key functions in policy planning and

[51] Since 2012, public debt in the G5-Sahel countries has increased from 32 percent to 51 percent of GDP. It is likely that public finances will need to be consolidated in the wake of the pandemic. With security spending needs likely to persist, the risk of other types of public spending being crowded out are likely to become acute.

M&E. The ECOWAS accountability framework, through the State Ministers Conference and a very active Steering Committee, will ensure that FSRP interventions align fully with the priorities of participating countries.

135. Fiduciary risk is rated *Substantial*. The program will use existing national PIUs or well-established national institutions to manage the fiduciary aspects of implementation. Differences in capacity for procurement, fiduciary management, and project management among participating countries could lead to uneven progress in implementing activities and achieving targets. To provide an updated evaluation of capacity, FM and procurement assessments were conducted in each country during preparation. Provisions will be made to strengthen the procurement and fiduciary management capacity of newly recruited staff prior to effectiveness.

136. *Mitigation:* Based on the capacity assessments undertaken during preparation, specific risk mitigation measures were developed for each participating country (see Annexes 1, 2, 3 and- 4).

137. Environmental and Social risks are rated *Substantial*. Environmental risks are rated ***Substantial*,** because the program will intervene in sensitive areas characterized by severe climate events, advanced land and biodiversity degradation, loss and damage of ecosystem services, overconsumption of water resources, and the presence of invasive species, including pests. Program activities have the potential for cumulative impacts, although they can be readily avoided or mitigated with adequate mitigatory and/or compensatory measures. Social risk related to FSRP is also rated ***Substantial*,** reflecting: (i) the fact that FSRP will be implemented in a social context with high levels of fragility and conflict; (ii) insecure land rights of vulnerable groups (including pastoralists and women); (iii) community health and safety risks, especially those related to security and labor influx; (iv) labor risks (including forced labor and child labor); (v) physical and/or economic displacement risks; and (vi) risks related to weak stakeholder engagement and weak operationalization of project-level GMs (including the SEA/SH grievance channel). Furthermore, the program is being developed in a legal/regulatory context where there is uncertainty or conflict over the jurisdiction of competing agencies, and where legislation or regulations do not adequately address these social risks and impact. As noted, the Borrowers' institutional capacity to implement the program under the ESF is considered weak, given the expanded scope of the ESF and the general lack of experience and familiarity with this instrument in the PIUs.

138. *Mitigation:* Environmental and social mitigation measures will stem from the ILM approach advocated by the program, which promotes new patterns of environmental governance to avoid, reduce, and reverse land degradation, restore soil fertility, increase organic matter and carbon storage in soils, encourage climate-smart and nutrition-sensitive agriculture, and improve rangeland management and planned livestock grazing practices. The program more generally seeks to increase tenure security with respect to individually held and communally held land, support and reinforce sustainable institutional arrangements for the use of and access to natural resources (co-management agreements between local user associations, the private sector, municipalities, and deconcentrated line departments), and strengthen social capital and solidarity networks. All measures aimed to mitigate environmental and social risks are set out in safeguard instruments, such as ESMF, RPF, SEP, LMP, and GBV/SEA/SH response and mitigation action plans, included in the ESMFs and eventually will be included in ESMPs as needed. These instruments have been prepared and were consulted upon and disclosed before appraisal. Security risks are also be included in ESMFs and reflected in ESIAs/ESMPs. Depending on the security risk level, a separate Security Management Plan may be required and developed during implementation. Institutional capacity strengthening measures will also be developed and implemented. Commitments regarding these risks are captured in the ESCPs that were agreed at negotiation.

139. Stakeholder risk is rated *Substantial*. The large number of stakeholders and development partners active in the region may not have harmonized approaches to support the participating countries. When that is the case,

there is a risk of inefficiency, duplication, and possible exclusion, especially of stakeholders belonging to vulnerable and disadvantaged groups.

140. *Mitigation:* A strong communication strategy and capacity-building plan will be developed at the beginning of the program to mitigate this risk. Other mitigation measures include: (i) the use of the Joint Multi-donors Steering Committee; (ii) the organization of a participatory bi-annual food resilience forum (held alongside implementation support mission wrap-up events) to discuss progress and synergies in the various operations.

141. **Other risk is rated *High*.** For FSRP, the foremost "other risk" is related to security. This risk pertains to virtually every aspect of the program. It has been discussed in conjunction with most of the other risks mentioned here because of its potential to augment them.

VII. RESULTS FRAMEWORK AND MONITORING

Results Framework

COUNTRY: Western Africa

West Africa Food System Resilience Program (FSRP)

Project Development Objective(s)

To increase preparedness against food insecurity and improve the resilience of food systems in participating countries.

Project Development Objective Indicators

Indicator Name	PBC	Baseline	Intermediate Targets				End Target
			1	2	3	4	
Digital advisory services for regional agriculture and food crisis prevention & Management							
Food system actors accessing hydro and agrometeorological advisory services (by number and gender) (Number)		0.00	65,000.00	165,000.00	295,000.00	415,000.00	500,000.00
Percentage of women (Percentage)		0.00	20.00	25.00	30.00	40.00	40.00
Burkina Faso (Number)		0.00	5,000.00	15,000.00	45,000.00	65,000.00	75,000.00
Mali (Number)		0.00	10,000.00	50,000.00	100,000.00	125,000.00	150,000.00
Niger (Number)		0.00	25,000.00	50,000.00	75,000.00	125,000.00	150,000.00
Togo (Number)		0.00	25,000.00	50,000.00	75,000.00	100,000.00	125,000.00
Sustainability & adaptive capacity of the food system's productive base							
Producers adopting climate-smart agricultural technologies		0.00	170,000.00	470,000.00	830,000.00	1,230,000.00	1,295,000.00

Indicator Name	PBC	Baseline	Intermediate Targets				End Target
			1	2	3	4	
and services (Number)							
Burkina Faso (Number)		0.00	50,000.00	200,000.00	300,000.00	500,000.00	500,000.00
Mali (Number)		0.00	50,000.00	150,000.00	350,000.00	500,000.00	500,000.00
Niger (Number)		0.00	60,000.00	80,000.00	100,000.00	160,000.00	160,000.00
Togo (Number)		0.00	10,000.00	40,000.00	80,000.00	130,000.00	135,000.00
Percentage of women (Percentage)		0.00					40.00
Percentage of reduction of food insecure people in program targeted areas (Percentage)		0.00	5.00	10.00	20.00	23.00	25.00
Burkina Faso (Percentage)		0.00	5.00	10.00	20.00	23.00	25.00
Mali (Percentage)		0.00	5.00	10.00	20.00	23.00	25.00
Niger (Percentage)		0.00	5.00	10.00	20.00	23.00	25.00
Togo (Percentage)		0.00	5.00	10.00	20.00	23.00	25.00
Program Beneficiairies (Number)		0.00	350,000.00	700,000.00	1,250,000.00	1,800,000.00	2,300,000.00
Program beneficiaries - Female (Percentage)		0.00	40.00	40.00	40.00	40.00	40.00
Burkina Faso (Number)		0.00	100,000.00	200,000.00	350,000.00	500,000.00	650,000.00
Mali (Number)		0.00	100,000.00	200,000.00	350,000.00	500,000.00	650,000.00
Niger (Number)		0.00	100,000.00	200,000.00	300,000.00	500,000.00	600,000.00
Togo (Number)		0.00	50,000.00	100,000.00	200,000.00	300,000.00	400,000.00

Indicator Name	PBC	Baseline	Intermediate Targets				End Target
			1	2	3	4	
Land area under sustainable landscape management practices (CRI, Hectare(Ha))		0.00	0.00	30,200.00	55,900.00	74,400.00	102,300.00
Burkina Faso (Hectare(Ha))		0.00	0.00	17,300.00	20,000.00	25,000.00	25,000.00
Mali (Hectare(Ha))		0.00	0.00	3,000.00	5,500.00	9,000.00	12,000.00
Niger (Hectare(Ha))		0.00	0.00	7,400.00	20,400.00	20,400.00	32,800.00
Togo (Hectare(Ha))		0.00	0.00	2,500.00	10,000.00	20,000.00	32,500.00
Regional food market integration & trade							
Share of intra-regionally traded production in selected value chains (Percentage)		20.00	21.00	23.00	25.00	27.00	30.00

Intermediate Results Indicators by Components

Indicator Name	PBC	Baseline	Intermediate Targets				End Target
			1	2	3	4	
Digital advisory services for regional agriculture and food crisis prevention & Management							
Percentage of satisfaction of farmers have access to usable weather, climate and ag-advisory services (Percentage)		0.00	60.00				80.00
Burkina Faso (Percentage)		0.00	0.00	0.00	80.00	80.00	80.00
Mali (Percentage)		0.00	0.00	0.00	80.00	80.00	80.00
Niger (Percentage)		0.00	0.00	0.00	80.00	80.00	80.00

Indicator Name	PBC	Baseline	Intermediate Targets				End Target
			1	2	3	4	
Togo (Percentage)		0.00	0.00	0.00	80.00	80.00	80.00
Improved access to local climate information services with digital information platforms (Yes/No)		No	No	Yes	No	Yes	Yes
Burkina Faso (Yes/No)		No	No	Yes	Yes	Yes	Yes
Mali (Yes/No)		No	No	Yes	Yes	Yes	Yes
Niger (Yes/No)		No	No	Yes	Yes	Yes	Yes
Togo (Yes/No)		No	No	Yes	Yes	Yes	Yes
Number of agreements involving co-production of agro-hydro-meteorological services between the public and private sectors (Number)		0.00	0.00	4.00	8.00	8.00	8.00
Burkina Faso (Number)		0.00	0.00	1.00	2.00	2.00	2.00
Mali (Number)		0.00	0.00	1.00	2.00	2.00	2.00
Niger (Number)		0.00	0.00	1.00	2.00	2.00	2.00
Togo (Number)		0.00	0.00	1.00	2.00	2.00	2.00
Sustainability & Adaptive Capacity of the Food System's Productive Base							
Technologies made available to farmers by the consortium of NCoS, CGIAR and other international research institutes (Number)		0.00	5.00	14.00	21.00	33.00	34.00
Burkina faso (Number)		0.00	0.00	2.00	2.00	6.00	6.00
Mali (Number)		0.00	3.00	5.00	7.00	10.00	10.00
Niger (Number)		0.00	2.00	4.00	6.00	8.00	8.00

Indicator Name	PBC	Baseline	Intermediate Targets				End Target
			1	2	3	4	
Togo (Number)		0.00	0.00	3.00	6.00	9.00	10.00
Percentage of nutrition sensitive technologies (Percentage)		0.00	0.00	10.00	20.00	30.00	30.00
Percentage of sub-projects selected from the integrated landscape management plans with climate-resilient measures implemented (Percentage)		0.00	50.00	60.00	65.00	70.00	70.00
Burkina Faso (Percentage)		0.00	50.00	60.00	65.00	70.00	70.00
Mali (Percentage)		0.00	50.00	60.00	60.00	70.00	70.00
Niger (Percentage)		0.00	50.00	60.00	65.00	70.00	70.00
Togo (Percentage)		0.00	50.00	60.00	65.00	70.00	70.00
Spatial information system established and operational for designing and planning climate-resilient land management practices (Yes/No)		No					Yes
Burkina Faso (Yes/No)		No	No	Yes	Yes	Yes	Yes
Mali (Yes/No)		No	No	Yes	Yes	Yes	Yes
Niger (Yes/No)		No	No	Yes	Yes	Yes	Yes
Togo (Yes/No)		No	No	Yes	Yes	Yes	Yes
Regional Food Market Integration and Trade							
Trade observatory operational and statistical services shared data in public domain (Yes/No)		No	No	No	Yes	Yes	Yes
Private-sector actors involved		0.00	0.00	33.00	85.00	180.00	270.00

Indicator Name	PBC	Baseline	Intermediate Targets				End Target
			1	2	3	4	
in regional agriculture trade that are supported by the Program (Number)							
Burkina Faso (Number)		0.00	10.00	30.00	70.00	100.00	100.00
Mali (Number)		0.00	10.00	30.00	70.00	100.00	100.00
Niger (Number)		0.00	10.00	20.00	30.00	50.00	50.00
Togo (Number)		0.00	3.00	5.00	20.00	40.00	50.00
Number of vulnerable people who can be supported (for 1 month) by the regional food security reserve (Number)		2,853,000.00	3,013,000.00	3,178,000.00	3,333,000.00	3,398,000.00	3,653,000.00
Women farmers reached with assets or services to improve commercialization in selected value chains (Number)		0.00	1,425.00	12,525.00	20,750.00	32,250.00	36,250.00
Burkina Faso (Number)		0.00	1,250.00	5,000.00	7,500.00	12,500.00	15,500.00
Mali (Number)		0.00	0.00	5,000.00	8,000.00	12,000.00	12,000.00
Niger (Number)		0.00	0.00	2,000.00	4,000.00	6,000.00	7,000.00
Togo (Number)		0.00	175.00	525.00	1,225.00	1,750.00	1,750.00
Program Management							
Beneficiaries satisfied with the Program's interventions. (Percentage)		0.00	60.00	60.00	80.00	80.00	80.00
Burkina Faso (Percentage)		0.00	60.00	60.00	80.00	80.00	80.00
Mali (Percentage)		0.00	60.00	60.00	80.00	80.00	80.00
Niger (Percentage)		0.00	60.00	60.00	80.00	80.00	80.00
Togo (Percentage)		0.00	60.00	60.00	80.00	80.00	80.00

Indicator Name	PBC	Baseline	Intermediate Targets				End Target
			1	2	3	4	
Grievances registered and addressed by the Program (Percentage)		0.00	60.00	70.00	80.00	90.00	90.00
Burkina Faso (Percentage)		0.00	60.00	70.00	80.00	90.00	90.00
Mali (Percentage)		0.00	60.00	70.00	80.00	90.00	90.00
Niger (Percentage)		0.00	60.00	70.00	80.00	90.00	90.00
Togo (Percentage)		0.00	60.00	70.00	80.00	90.00	90.00

Monitoring & Evaluation Plan: PDO Indicators

Indicator Name	Definition/Description	Frequency	Datasource	Methodology for Data Collection	Responsibility for Data Collection
Food system actors accessing hydro and agrometeorological advisory services (by number and gender)	This indicator measures the number of Food system actors who are benefiting from the FSRP support for accessing hydro and agrometeorological advisory services	Annual	Activity reports, surveys	Total number of food system actors who have access to hydro and agrometeorological advisory services thanks to the Project support	M&E Specialists, National Hydromet Department
Percentage of women					
Burkina Faso	This indicator measure the number of Food system actors who are benefiting from the FSRP support for	Yearly	Activity reports, surveys	Total number of food system actors who have access to hydro and agrometeorological	M&E Specialists, National Hydromet Department

	accessing hydro and agrometeorological advisory services			advisory services thanks to the Project support	
Mali	This indicator measures the number of Food system actors who are benefiting from the FSRP support for accessing hydro and agrometeorological advisory services	Yearly	Activity reports, surveys	Total number of food system actors who have access to hydro and agrometeorological advisory services thanks to the Project support	M&E Specialists, National Hydromet Department
Niger	This indicator measure the number of Food system actors who are benefiting from the FSRP support for accessing hydro and agrometeorological advisory services	Yearly	Activity reports, surveys	Total number of food system actors who have access to hydro and agrometeorological advisory services thanks to the Project support	M&E Specialists, National Hydromet Department
Togo	This indicator measures the number of Food system actors who are benefiting from the FSRP support for accessing hydro and agrometeorological advisory services	Yearly	Activity reports, surveys	Total number of food system actors who have access to hydro and agrometeorological advisory services thanks to the Project support	M&E Specialists, National Hydromet Department
Producers adopting climate-smart agricultural technologies and services	This indicator measures the total number of the Program beneficiaries who have adopted technologies/practices that can lead to improve resilience to climate variability, increase	Annual	Country progress reports	Sum of the total beneficiaries benefitting from CSA technologies/practices, advisory services and trainings from the Project's support.	M&E Specialists

	productivity and/or mitigation and also for advisory services under the Project support				
Burkina Faso	This indicator measures the total number of the Program beneficiaries who have adopted technologies/practices that can lead to improve resilience to climate variability, increase productivity and/or mitigation and also for advisory services under the Project support	Annual	Progress report	Sum of the total beneficiaries benefitting from CSA technologies/practices, advisory services and trainings from the Project's support.	M&E Specialist
Mali	This indicator measures the total number of the Program beneficiaries who have adopted technologies/practices that can lead to improve resilience to climate variability, increase productivity and/or mitigation and also for advisory services under the Project support	Annual	Progress report	Sum of the total beneficiaries benefitting from CSA technologies/practices, advisory services and trainings from the Project's support.	M&E Specialist
Niger	This indicator measures the total number of the Program beneficiaries who have adopted	Annual	Progress Report	Sum of the total beneficiaries benefitting from CSA technologies/practices,	M&E Specialist

	technologies/practices that can lead to improve resilience to climate variability, increase productivity and/or mitigation and also for advisory services under the Project support			advisory services and trainings from the Project's support.	
Togo	This indicator measures the total number of the Program beneficiaries who have adopted technologies/practices that can lead to improve resilience to climate variability, increase productivity and/or mitigation and also for advisory services under the Project support				
Percentage of women					
Percentage of reduction of food insecure people in program targeted areas	This indicator measures the reduction of food insecure people in the targeted areas. The food insecure people are those in phase 3. a and 5 based on the Integrated Food Insecurity Phase Classification (IPC)	Twice per year	Cadre harmonise, Early warning systems report	Cadre Harmonisé methodology	Early Warning System Office, PIU
Burkina Faso	This indicator measures the number of food insecure	Twice a year	Early warning System	Cadre Harmonisé methodology	Early Warning System

	people between phase 3 and 5 of the Integrated Food Security Phase Classification (IPC).		Reports, cadre harmonisé		Office, PIU
Mali	This indicator measures the number of food insecure people between phase 3 and 5 of the Integrated Food Security Phase Classification (IPC).	Twice a year	Early Warning System Reports	Cadre Harmonisé Methodology	Early Warning System Office, PIU
Niger	This indicator measures the number of food insecure people between phase 3 and 5 of the Integrated Food Security Phase Classification (IPC).	Twice per year	Early Warning Systems Reports, Cadre Harmonisé	Cadre Harmonisé Methodology	Early Warning System Office, PIU
Togo					
Program Beneficiairies	This indicator will measure the number of beneficiaries in project target areas which are provided with agricultural assets or services as a result of project activities. Agriculture assets or services in the context of this indicator refer to infrastructure, goods and services i that are provided as a result of project activities. Services include,	Twice a year	Project reports	Baseline study and subsequent studies twice a year	National PIUs

	for example, early earning advice, agriculture advices, trainings,.... The values of this indicator will be measures as total and also broken down by females, and countrry.				
Program beneficiaries - Female					
Burkina Faso					
Mali					
Niger					
Togo					
Land area under sustainable landscape management practices	The indicator measures, in hectares, the land area for which new and/or improved sustainable landscape management practices have been introduced. Land is the terrestrial biologically productive system comprising soil, vegetation, and the associated ecological and hydrological processes; Adoption refers to change of practice or change in the use of a technology promoted or introduced by the project;	Twice a year	Project reports	Baseline study and subsequent studies twice a year	National PIUs

	Sustainable landscape management (SLM) practices refers to a combination of at least two technologies and approaches to increase land quality and restore degraded lands for example, agronomic, vegetative, structural, and management measures that, applied as a combination, increase the connectivity between protected areas, forest land, rangeland, and agriculture land.				
Burkina Faso					
Mali					
Niger					
Togo					
Share of intra-regionally traded production in selected value chains	Share of intra-regionally traded production in selected value chains	Annual	Customs and Ministry of trade statistics	Statistics from Customs and the Ministry of trade	PIU

Monitoring & Evaluation Plan: Intermediate Results Indicators					
Indicator Name	**Definition/Description**	**Frequency**	**Datasource**	**Methodology for Data Collection**	**Responsibility for Data Collection**
Percentage of satisfaction of farmers have access to usable weather, climate and ag-advisory services	Percentage of beneficiaries who express satisfaction with the weather, climate and ag-advisory services provided in the project areas based on formal surveys. It is expected that a survey to measure this indicator will be carried out twice throughout the project. The sample size should be representative of the total number of beneficiaries.	Mid term, and end of project	Progress reports/FSRP M&E system	Survey	PIU M&E Specialist
Burkina Faso	Percentage of beneficiaries who express satisfaction with the weather, climate and ag-advisory services provided in the project areas based on formal surveys. It is expected that a survey to measure this indicator will be carried out twice throughout the project. The sample size should be representative of the total number of beneficiaries.	Mid term and end of the Project	FSRP progress report	Survey	PIU

Mali	Percentage of beneficiaries who express satisfaction with the weather, climate and ag-advisory services provided in the project areas based on formal surveys. It is expected that a survey to measure this indicator will be carried out twice throughout the project. The sample size should be representative of the total number of beneficiaries.	Mid-term and end of Project	Progress report and FSRP M&E database	Survey	
Niger	Percentage of beneficiaries who express satisfaction with the weather, climate and ag-advisory services provided in the project areas based on formal surveys. It is expected that a survey to measure this indicator will be carried out twice throughout the project. The sample size should be representative of the total number of beneficiaries.	Mid- term and end of Project	Progress report and FSRP M&E database	Survey	PIU
Togo	Percentage of beneficiaries who express satisfaction with the weather, climate and ag-advisory services	Mid-term and end of Project	Progress report and FSRP M&E database	Survey	PIU

	provided in the project areas based on formal surveys. It is expected that a survey to measure this indicator will be carried out twice throughout the project. The sample size should be representative of the total number of beneficiaries.				
Improved access to local climate information services with digital information platforms	This indicator informs on the on the delivery of climate information services to the Project's beneficiaries through digital information platforms provided by the Project.	Yearly	Progress report/FSRP M&E system, Hydromet services reports	Yearly information collection	PIU
Burkina Faso	This indicator informs on the on the delivery of climate information services to the Project's beneficiaries through digital information platforms provided by the Project.	Yearly	Progress report/FSRP M&E system, Hydromet services reports	Data collection	PIU
Mali	This indicator informs on the on the delivery of climate information services to the Project's beneficiaries through digital information	Yearly	Progress report/FSRP M&E system, Hydromet services reports	Data collection	PIU

	platforms provided by the Project.				
Niger	This indicator informs on the on the delivery of climate information services to the Project's beneficiaries through digital information platforms provided by the Project.	Yearly	Progress report/FSRP M&E system, Hydromet services reports	Data collection	PIU
Togo	This indicator informs on the on the delivery of climate information services to the Project's beneficiaries through digital information platforms provided by the Project.	Yearly	Progress report/FSRP M&E system, Hydromet services reports	Data collection	PIU
Number of agreements involving co-production of agro-hydro-meteorological services between the public and private sectors	Number of agreements and contracts involving co-production of agro-hydro-meteorological services between the public and private sectors	Annual	Progress Report	Progress report review	Meteorology Department, PIU
Burkina Faso	Number of agreements and contracts involving co-production of agro-hydro-meteorological services between the public and private sectors	Annual	Progress reports	Review of progress reports	Meteorology Department, PIU
Mali	Number of agreements and contracts involving co-	Annual	Progress report	Progress report review	Meteorology

	production of agro-hydro-meteorological services between the public and private sectors				Department, PIU
Niger	Number of agreements and contracts involving co-production of agro-hydro-meteorological services between the public and private sectors	Annual	Progress reports	Review of progress reports	meteorology Department, PIU
Togo	Number of agreements and contracts involving co-production of agro-hydro-meteorological services between the public and private sectors	Annual	Progress report	Progress report review	PIU, Meteorology Department
Technologies made available to farmers by the consortium of NCoS, CGIAR and other international research institutes	Number of technologies developed by the consortium of NCoS, CGIAR and other international research institutes and made available to farmers by the extension system	Every six month	Progress report, FSRP M&E system, NCoS and CGIAR institutions reports	Data collection, survey	PIU
Burkina faso	Number of technologies developed by the consortium of NCoS, CGIAR and other international research institutes and made available to farmers by the extension system	Every 6 months	Progress reports, N&E system, CGIAR and NCoS reports	Data collection and survey	PIU

Mali	Number of technologies developed by the consortium of NCoS, CGIAR and other international research institutes and made available to farmers by the extension system	Every 6 months	Progress reports, FSRP M&E system, CGIAR and NCoS reports	Data collection and survey	PIU
Niger	Number of technologies developed by the consortium of NCoS, CGIAR and other international research institutes and made available to farmers by the extension system	Every 6 months	Progress reports, FSRP M&E system, CGIAR and NCoS reports	Data collection and survey	PIU
Togo	Number of technologies developed by the consortium of NCoS, CGIAR and other international research institutes and made available to farmers by the extension system	every six month	FSRP progres reports, M&E system, CGIAR and NCoS reports	Data collection and survey	PIU
Percentage of nutrition sensitive technologies	Share of technologies that contribute to improving nutrition out of the total technologies made available to farmers	Every six months	FSRP Progress reports, M&E system, NCoS and CGIAR reports	Technologies categorization and calculation of the share of nutrition sensitive technologies	PIU
Percentage of sub-projects selected from the integrated landscape management plans with climate-resilient measures implemented	Share of sub-projects selected from the integrated landscape management plans with climate-resilient measures	Every 6 months	FSRP Progress reports, M&E system	Sub-projects database	PIU

	implemented out of the total sub-projects				
Burkina Faso	Share of sub-projects selected from the integrated landscape management plans with climate-resilient measures implemented out of the total sub-projects	Every 6 months	FSRP progress reports, M&E	Sub-projects data base	PIU
Mali	Share of sub-projects selected from the integrated landscape management plans with climate-resilient measures implemented out of the total sub-projects	Every 6 months	FSRP progress, M&E system	Sub-projects database	PIU
Niger	Share of sub-projects selected from the integrated landscape management plans with climate-resilient measures implemented out of the total sub-projects	Every 6 months	FSRP progress reports, M&E system	Sub-projects database	PIU
Togo	Share of sub-projects selected from the integrated landscape management plans with climate-resilient measures implemented out of the total sub-projects	Every six months	Progress reports, FSRP M&E system	Sub-projects database	PIU
Spatial information system established and operational for designing and	Existence of an operational spatial information system	Yearly	Progress report		National PIUs

planning climate-resilient land management practices	for designing and planning climate-resilient land management practices				
Burkina Faso					
Mali					
Niger					
Togo					
Trade observatory operational and statistical services shared data in public domain	This indicator measures the progress on implementing an electronic platform to monitor progress in regional food trade, register bottlenecks, grievance and statistical services on food trade.	Yearly	ECOWAS and WAEMU reports	Review of ECOWAS and WAEMU reports	ECOWAS/ARAA
Private-sector actors involved in regional agriculture trade that are supported by the Program	This indicator measures the number of private-sector led initiatives involved in regional agriculture products, inputs and output trade that are supported by the Program.	Twice a year	Prgress report	Review of progress reports	National PIUs
Burkina Faso					
Mali					
Niger					
Togo					

Number of vulnerable people who can be supported (for 1 month) by the regional food security reserve	This indicator measures the Number of vulnerable people who can be supported (for 1 month) by the regional food security reserve based on the available reserve volume	Every year	Progress reports, ARAA reports	Reports review	ARAA, ECOWAS
Women farmers reached with assets or services to improve commercialization in selected value chains	This indicator measures the number of farmers reached with assets or services to improve the commercialization of agricultural products as a result of project activities. It is to note that while the word "farmer" includes for the purposes of this indicator livestock, herders and fishermen and primary agro-processors.	Twice a year	Progress reports, M&E system	Review of activity reports and field visits	National level PIUs
Burkina Faso					
Mali					
Niger					
Togo					
Beneficiaries satisfied with the Program's interventions.	Percentage of beneficiaries who express satisfaction with the services provided in the project areas based on formal surveys. It is	Mid term, and end of project	Progress reports	Survey	National PIU, Regional PIU

	expected that a survey to measure this indicator will be carried out twice throughout the project. The sample size should be representative of the total number of beneficiaries.				
Burkina Faso					
Mali					
Niger					
Togo					
Grievances registered and addressed by the Program	This indicator measures the percentage of grievances relayed through the GRM system that are adequately addressed.	Every six months	GRM activity reports	Review of GRM activity reports	National level PIUs and the LGA
Burkina Faso					
Mali					
Niger					
Togo					

ANNEX 1: FOOD SYSTEM RESILIENCE PROGRAM FOR BURKINA FASO

I. STRATEGIC CONTEXT

A. Country Context

1. Burkina Faso is a West African country with an area of approximately 274,000 km² and an economy dominated largely by the agricultural sector. The country is semi-arid, with a Sudan-Sahelian climate and irregular rainfall that is poorly distributed in time and space. The population, estimated at 20.4 million inhabitants (2019), is young (45.3 percent under 15 years) and predominantly female (51.7 percent). The majority of the population (73.7 percent) lives in rural areas. Since 2015, Burkina Faso has faced numerous socio-political and security challenges that have hampered economic growth and exacerbated environmental degradation. The security situation has deteriorated considerably since June 2018 due to an upsurge in violent attacks by terrorists and criminal groups in the Sahel, East, Boucle du Mouhoun, North, and Center-North regions. As of June 2021, more than 1.3 million Burkinabe have been internally displaced in just over two years, because of the security situation.

2. The economic downturn, deteriorating security, and the pandemic are increasing poverty and worsening social conditions. Poverty remains widespread. In 2019, two out of five people in Burkina Faso were living below the national poverty line. This corresponds to 8.5 million people, more than 90 percent of whom reside in rural areas. Reversing a long-term trend, poverty increased in 2020 driven by direct income losses, the economic slowdown, and the reduction in remittances due to COVID-19. Growth had accelerated to about 6.4 percent in 2018–19, supported by a rebound in the agricultural sector and sustained expansion in mining and services. However, due to both the global slowdown and the domestic COVID-19 outbreak, GDP growth is expected to collapse to –2 percent in 2020—a downward revision of 8 percentage points from the 6 percent projected before COVID-19—with an associated 5 percent decline in per capita income.

3. Food and nutrition insecurity have also worsened due to the combined effects of the pandemic, conflicts in parts of the country, high population growth, degradation of natural resources, and climate change. Estimates based on *Cadre Harmonisé* data in March 2020 concluded that more than 2.1 million people throughout Burkina Faso were food insecure (phase 3 to 5), or 21 percent of the total population, compared to about 480,000 in 2016, or about 3 percent of the population. Worsening food insecurity is mainly due to the significant impacts of droughts, pest outbreaks, insecurity, and COVID-19, which caused food production to decline and livelihoods to be lost. The pandemic and the measures taken to limit its spread have led to a reduction in household purchasing power, an increase in food prices, a slowdown in market activity in rural and urban areas, difficulties in the supply of foodstuffs and production inputs, and difficulties in implementing food security programs.

B. Sector and Institutional Context

4. The agricultural sector remains one of the main pillars of the national economy, but agricultural livelihoods are increasingly precarious. Agriculture is the main source of employment and income for the majority of people in Burkina Faso, but the sector is not very productive or competitive, generating few jobs and little income. At the same time, agro-ecological conditions are becoming more challenging with climate change. Rainfall is generally low—400 mm per year on average in the Sahelian zone and 800–1,000 mm in the Sudano-Sahelian zone—as well as irregular, poorly distributed in time and space, and expected to decline. People working in agriculture face growing risks of food and nutrition insecurity.

5. The resilience of the food system is threatened by increased pressure on natural resources, especially land and water. Resilience is being undermined by the combined effects of land degradation (affecting about 19 percent of the national territory—5,160,000 ha—between 2002 and 2017),[1] climate change, conflict, low productivity, limited value chain organization, and now COVID-19. The loss of resilience has ecological and socio-economic consequences, leading to increased poverty and migration, and

increasing the pressure on land and other natural resources. Rural areas are experiencing changes in land-use patterns with the mining boom, land grabbing by new actors, and the monopolization of agricultural land by real estate companies. These trends have increased conflicts among land users—for example, limiting the mobility of pastoralists and causing "straying" livestock to be seized by other land users.

6. ILM is now seen as a preferred approach for local actors to develop a shared vision for the use and development of their land and other natural resources and implement it in a coordinated manner that fosters resilience. Burkina Faso has joined the AGIR, which aims to put a definitive end to the cycle of hunger and malnutrition. The priority given to resilience will enable the country to: (i) restore and strengthen the livelihoods and social protection of the most vulnerable; (ii) strengthen the nutrition of vulnerable households; (iii) sustainably improve food production, incomes of vulnerable households, and their access to food; and (iv) strengthen governance for food and nutrition security.

7. Agricultural productivity stagnated over 2009–18 as climatic hazards erased the productivity boost from agricultural intensification. Most crops—subsistence and cash crops as well as legumes (cowpeas, groundnuts)—are produced under rainfed conditions, resulting in low yields, high vulnerability to climate change, and losses from recurrent pest outbreaks (locust invasion, desert locusts, armyworms, granivorous birds) that contribute to food insecurity. Other crops such as rice, onions, and tomatoes are grown under fully irrigated (total water control) or semi-irrigated (lowland) conditions but yields even of irrigated crops are below potential. Burkina Faso's agriculture is also characterized by a low rate of mechanization and access to agricultural equipment (only 6 percent of land was planted by tractor in 2017) and little modernized advisory support. To increase agricultural productivity, particular emphasis will be placed on: (i) promoting appropriate technological packages and mechanization and (ii) promoting the adoption of new technologies, including digital technologies.

8. The degree of commercialization of agriculture is low. The sale of cereals by farm households is dominated by corn, millet, rice, and sorghum. Cotton remains the most marketed cash crop (an estimated 80–100 percent is sold). Over 2009–18, agricultural income averaged less than 30,000 CFA francs (XOF) per household per month, another indication that agriculture has stagnated at the subsistence level. Over the same period, average household agricultural income increased by XOF 2,717, or 12.9 percent in ten years. This increase is associated with a small increase in the value-added of agricultural products (29 percent) over the same period. There is great untapped potential to develop the agribusiness sector, but processing is still relatively low (about 12 percent in 2015). Numerous bottlenecks such as the lack of packaging or processing units in the various value chains limit value addition. The "produce to sell" approach rather than "produce and sell" could be promoted, through contract farming and by restructuring of farmers' organizations into cooperatives.

9. Burkina Faso has important assets to develop its agriculture, however. These are: (i) land and agro-ecological potential (9 million hectares of agricultural land, which could be used more productively, and some of which has potential for irrigated agriculture); (ii) traditional know-how and experience of producers; (iii) technological packages developed by research institutions; and (iv) growing demand in regional and international markets for the country's main exported products (fruits and vegetables, cowpeas, maize). Exploiting this potential through an ILM approach will boost agricultural production while taking into account the needs of other stakeholders and the preservation of agro-ecological diversity.

10. Due to its geographic location, Burkina Faso can take advantage of the various trade corridors to strengthen the marketing of its agricultural products. It can intensify production to market agricultural products to coastal countries (Benin, Togo, Ghana, and Côte d'Ivoire) and landlocked countries (Mali and Niger). All of these trade corridors will be exploited under FSRP.

C. Relevance to Higher-Level Objectives

11. **FSRP reflects national priorities,** including priorities set out in the National Economic and Social Development Plan (PNDES) and Sectoral Policy on Agro-Silvo-Pastoral Production (PS-PASP), which have the objective to "structurally transform the Burkinabe economy for strong, sustainable, resilient, and inclusive growth that creates decent jobs for all and improves social welfare." The goal of the PS-PASP is to develop a productive "agro-silvo-pastoral sector" that ensures food and nutritional security, is more market-oriented, and creates jobs based on sustainable production and consumption methods. Implementation of the sectoral policy is expected to halve the number of people vulnerable to food and nutritional insecurity by 2026. In terms of food security and resilience, FSRP is in line with the orientations and objectives of the National Food and Nutritional Security Policy and the country's resilience priorities. FSRP will also contribute to the achievement of national objectives in terms of promoting the processing and marketing of agricultural products.

12. **Alignment with the WBG Country Partnership Strategy (CPS)**. The project is aligned with the WBG CPF FY18-23 (Report no 123712-BF) approved on July 5, 2018, and WBG's priorities related to poverty reduction and climate change mitigation and adaptation. Particularly, it will support Focus Area 1 of the CPF pertaining to accelerating sustainable private-led growth for job creation for which two of the main objectives are to improve agriculture productivity and the competitiveness of agri-food value chains, and to develop transport, trade, and information, communication and technology (ICT) for improved access to markets.

13. **Gender.** Burkina Faso has a National Gender Policy with an Action Plan and gender focal points in all ministries, institutions, and decentralized structures to ensure that gender is taken into account in all activities. Activities under FSRP will emphasize women and youth by: supporting women and youth to pursue advanced diplomas, encouraging succession planning in research teams by reserving positions for young people and women; and subsidizing fertilizer and seed (80 percent) to give women better access to agricultural inputs (cowpea seed will be provided free of charge to women). Women's access to land will also be improved by granting at least 30 percent of developed land to women. Better household nutrition will be supported through the establishment of 170 ha of market gardens for women. The program will also work to increase youth employment by supporting the establishment of a corps of plant health workers. In addition, 30 percent of 1500 ha to be developed by the project will be dedicated for women to produce lowland rice.

II. PROJECT DESCRIPTION

A. Project Development Objective

14. **The PDO is to increase preparedness against food insecurity and improve the resilience of food systems in Burkina Faso.**

B. Project Results Indicators

15. **Progress towards** the achievement of the PDO would be measured by the following indicators, in line with the indicators of the FSRP MPA.

Table A1.1 Results indicators for Burkina Faso

Indicator	Baseline	End target
PDO-level (outcome) indicators		
Program beneficiaries (number and percentage of female beneficiaries)	0	650,000 (40%)
Reduction of food insecure people in program targeted areas (percentage)	0	25
Food system actors accessing hydro and agrometeorological advisory services (number and percentage of female beneficiaries)	0	75,000 (40%)

Producers adopting supported climate-smart agricultural technologies and services (number and percentage of female beneficiaries)	0	500,000 (40%)
Land area under sustainable landscape management practices in ha	0	25,000
Share of intra-regionally traded production in selected value chains (maize, cowpeas, vegetables) (percentage)	TBD	30
Intermediate Results Indicators		
C1: Digital advisory services for regional agriculture and food crisis prevention and management		
Satisfaction of farmers who have access to usable weather, climate and ag-advisory services (percentage)	0	80
Improved access to local climate information services with digital information platforms (Yes/No)	No	Yes
Agreements involving co-production of agro-hydro-meterological services between the public and private sectors (number)	0	2
C2: Sustainability and adaptive capacity of the food system's productive base		
Technologies made available to farmers by the consortium of NCoS, CGIAR and other international research institutes (number)	0	6
Percentage of nutrition sensitive technologies (percentage)	0	30
Sub-projects selected from the ILM plans with climate-resilient measures implemented (percentage)	0	70
Spatial information system established and operational for designing and planning climate-resilient land management practices (Yes/No)	No	Yes
C3: Regional food market integration and trade		
Private-sector actors involved in regional agriculture trade that are supported by the Program (number)	0	100
Women farmers reached with assets or services to improve commercialization in selected value chains (number)	0	15,500
C5: Program management		
Beneficiaries satisfied with the Program's interventions (percentage)	0	80
Grievances registered and addressed by the Program (percentage)	0	90

C. Project Components

16. In line with the overall MPA program, Burkina Faso's interventions include activities designed to respond immediately to the food insecurity crisis as well as medium- and longer-term investments. All activities to be implemented are described in the following.

COMPONENT 1: DIGITAL ADVISORY SERVICES FOR AGRICULTURE AND FOOD CRISIS PREVENTION AND MANAGEMENT (US$5.3 million IDA)

17. This component will be implemented in collaboration with the HYDROMET project (P164078), the National Meteorology Agency (ANAM), the Early Warning System (SAP) and the Food Security National Council (CNSA), as well as the University of Ouagadougou.

18. ***Subcomponent 1.1: Upgrading Food Crisis Prevention and Monitoring Systems (US$1.8 million IDA).*** This subcomponent supports activities to:

(a) **Improve regional and national capacity to deliver reliable information services on vulnerability, nutrition, and food security.** This activity will strengthen national capacity to contribute to the coordination and organization of the regional food security system (AGRHYMET center and other institutions), integrating the private sector as much as possible. It focuses on building national capacity for monitoring and providing food security information services and supports Burkina Faso's role in the *Cadre Harmonisé*.

(b) **Reorganize and improve regional and national pest and disease monitoring and management systems.** This activity will promote the development of forecasting, warning, and advisory services, in addition to the development of new mechanisms for the surveillance and management of pests and diseases affecting agriculture and food security.

(c) **Strengthen regional collaboration for food crisis prevention.** This activity will promote regional collaboration between the public, private, and academic sectors through harmonized approaches, including the establishment of a learning platform for national climate information providers. It will strengthen the agricultural information system by integrating regional and provincial information systems to provide multidimensional data on vulnerability. It will also increase collaboration between the public, private, and academic sectors to support decision making through improved advisory services.

19. ***Subcomponent 1.2: Strengthen Digital Hydromet and Agro-Advisory Services for Farmers (US$3.6 million IDA).*** This subcomponent aims to increase access to and use of specific and relevant food security information by policymakers and producers (farmers, herders, pastoralists) through national extension systems. It includes activities to:

(a) ***Improve the production of climate, hydromet, agromet, and impact-based information for use by decision-makers, farmers, pastoralists, and other actors in the food system.*** These activities will be based on a national assessment of the information needs and expectations of potential users as a starting point to build the capacity of organizations (public, private, academic) providing agro- and hydrometeorological services. National hydrometeorological observation capacity will be improved to complement regional and global meteorological data collection and infrastructure and supply impact-based forecasting, warning, and advisory services to meet the needs of agriculture and food security. These activities will be complemented by support for masters and doctoral degree training as well as short courses related to hydrometeorological and climate phenomena, including climate change, sustainable land and water management, and disaster risk reduction.

(b) **Support the timely delivery and use of essential agro-hydrometeorological information to key users.** Timely agro-meteorological information will be provided to farmers through multimodal channels, including ICTs, in partnership with the private sector (telephone companies, agricultural traders, service providers), the academic sector, and civil society.

(c) **Strengthen the financial and institutional sustainability of regional and national institutions providing climate, hydromet, and agromet information.** This activity will assess and revise policies, including access to meteorological data at the national level, and design a national strategy for public-private partnership in agro- and hydrometeorological information and data, including data regulation and accessibility, with the aim of improving cooperation between the public, private, and academic sectors. It will support the development of climate information for devising risk financing instruments (emergency funds, insurance, derivatives, contingency loans).

20. **Component costs.** Activities financed under this component will include support for the rehabilitation of infrastructure, acquisition of equipment and materials, consultant services and training activities, as well as stakeholder consultation meetings.

COMPONENT 2: SUSTAINABILITY AND ADAPTIVE CAPACITY OF THE FOOD SYSTEM'S PRODUCTIVE BASE (US$77.4 million, of which US$52.8 million IDA, US$17.5 million GAFSP, and US$7.1 million beneficiaries)

21. Component 2 aims to strengthen the resilience of agro-silvo-pastoral production systems, enabling small and medium-sized producers, particularly women and youth, to sustainably meet their nutritional needs and increase their income from the sale of surpluses on local and regional markets.

22. ***Subcomponent 2.1: Consolidate Regional Agriculture Innovation System (US$10.2 million, of which US$9.9 million IDA and US$0.3 million GAFSP).*** This subcomponent will strengthen national and regional research and extension systems to provide improved technological innovations, including climate-smart, nutrition-sensitive, and gender- and youth-friendly technologies, on a sustainable basis. It will strengthen National Center for Specialization in Fruit and Vegetables (NCS-FL) to serve as an RCoE to address priority regional research needs. This subcomponent will support activities to:

(a) **Strengthen National and Regional Research Centers.** This activity will focus on the development of seed for market gardens (horticulture) and will transfer techniques and technologies for the fruit and vegetable subsectors. To that end, it will strengthen the capacity of NCS-FL through the construction/rehabilitation of infrastructure, acquisition of equipment, and improvements in skills (researchers, technicians, administrative staff).

(b) **Deepening and expanding regional R&D networking.** This activity will support the development and establishment of a platform for ILM.

(c) **Promote technology access and exchange.** The generation and dissemination of technologies through regional research networks will allow priority research programs on fruits and vegetables to be implemented. Planned activities include: (i) strengthening regional and international partnerships (with the CGIAR centers and other international agricultural research institutions), facilitated by CORAF; (ii) supporting R&D projects at the national and regional level; (iii) contributing to consultations on the diversification of funding sources for agricultural research at the national and regional level; and (iv) supporting the participation of stakeholders in regional meetings and exchange visits, sharing research results and achievements through regional training sessions on fruit and vegetable technologies and know-how, and strengthening the advisory support system and sustainable adoption of the technologies disseminated.

(d) **Modernize national extension services.** This activity supports the inclusion of new tools and approaches in the national strategy for agricultural extension such as: (i) establishing innovation platforms as a vehicle for technology adoption; (ii) digital agriculture; and (iii) digital advice to farmers (3-2-1 system, Call Center, Agri'Tube) and approaches promoted by the private sector and producer organizations. It will also support the development of extension tools such as agropastoral farmers field schools (FFS).

23. ***Subcomponent 2.2: Strengthen Regional Food Security through ILM (US$67.1 million, of which US$42.9 million IDA, US$17.2 million GAFSP, and US$7.1 million beneficiaries).*** Through the ILM approach, this subcomponent will promote economic activities to improve livelihoods and employment (while closing gender gaps), improve food production and sustainable ecosystem management, and maximize the sustainable potential of natural resources in the target areas. This subcomponent will simultaneously address sustainable supply (production constraints) and demand (market access). The target landscapes for Subcomponent 2.2 are the Hauts-Bassins, Center-West, and East Regions. This subcomponent will support activities to:

(a) **Establish participatory ILM. (US$1.1 million IDA).** This group of activities will raise awareness and mobilize action to initiate participatory landscape management. Landscapes will be characterized and delimited; an integrated development vision and ILM plan will be developed in close collaboration with the landscape stakeholders through the landscape development committees to be established newly or through strengthening of existing committees), and supported by capacity building. A maximum of 10 landscapes will be selected from the Kou Basin area (Hauts-Bassins), the Sirba Basin area (East Region), and Mouhoun Basin area (Center-West).

(b) **Enhance the resilience of eco- and food systems in priority landscapes (US$35.68 million, of which US$32.3 million IDA, and US$3.3 million beneficiaries).** This group of activities includes investments

required urgently at the landscape level to restore physical, productive, and cultural functions—and thus restore ecosystem functions and resilience. A list of identified interventions is presented in Table A1.2. It is important to emphasize at the outset that these investments are not directly dependent on the results of planning activities, although they are obviously linked. This means that the priority investments identified by stakeholders during project preparation will not be compromised by delays in the implementation of the integrated landscape vision and action plan. The two groups of activities will be carried out in parallel, with progress in each group feeding into the other. The investments identified include, among others, land and soil restoration, rehabilitation of irrigation scheme (Bama scheme and rainwater harvesting), and soil and fertility management (including small scale erosion control infrastructure and the application of organic fertilizer, including manure) with use of mitigation measures indicated in the E&S instruments, to manage pollution related impacts. The project will support technology transfer for suitable climate-smart innovations. These activities will benefit from the research orientations and innovations provided through Subcomponent 2.1. As a champion in ILM in the region, Burkina Faso will champion sustainable land management initiatives in the program. To this end, FSRP will support the creation of a virtual platform on best practices in ILM with the support of the National Institute for Environment and Agriculture Research (INERA) and regional bodies (CORAF, CILSS). The aim is to create a technical network on ILM to allow experience sharing and learning among the ECOWAS Member States.

(c) **Secure resilient eco- and food systems beyond priority landscapes (US$30.64 million, of which US$9.5 million IDA, US$17.2 million GAFSP, and US$3.8 million beneficiaries).** This group of activities will include GAFSP livelihood and nutrition improvement interventions such as establishing processing units for nutrient-rich products, promoting production of enriched products (including trademarked moringa or orange-fleshed sweet potato products), capacity building for value chain actors in processing (including support for women's cooperatives to produce parboiled rice), and the development and dissemination of good practices in production, processing, and marketing. Moreover, activities include the identification of promising products, producers, and key stakeholders to form productive alliances. Advisory and other services, capacity building, and equipment will be provided to support producers and buyers in developing and implementing their marketing arrangements and business plans. A significant activity under this subcomponent, setting the stage for value chain development, is to organize producer cooperatives and connect the cooperatives with buyers and markets. The legal framework for organizing producers into cooperatives is the OHADA Uniform Act on the Law of Cooperative Societies. This action is expected to improve the level of organization among agro-pastoral actors in the selected value chains through the establishment and/or strengthening of cooperative societies focused on production, mechanized services (plowing), crop protection, post-harvest services, processing, and marketing. The organization of actors into cooperatives will promote group sales and purchases. Cooperatives will receive aggregation infrastructure and develop sales contracts with the Société Nationale de Gestion des Stocks de Sécurité (SONAGESS, which manages the national food reserve). This initiative will be scaled up at other sites to promote contracts with national and international buyers and increase food trade along the main trade corridors.

Table A1.2: Interventions in priority landscapes

Landscape Site of Kou Basin	
Intervention menu	Train the technical agents on ILM; support the implementation of the actions of the ILM Plan; support the financing of sub-projects for the improvement of the landscape site; support the production of organic manure to improve the fertility of the soils; development of CES/DRS (dykes, dikes, hedges), associated with vegetation in the watershed upstream of the perimeter; organization of producers into groups to improve access to inputs and the use of agricultural equipment; promote the productive alliance for the marketing of agricultural products; training of producers on sustainable agricultural practices and the maintenance of structures; - securing land tenure for developments (demarcation, registration); training of producers on the watershed approach; planting of trees

	including non-timber forest products; organization of meetings between farmers and breeders for conflict resolution.
Targets	Rehabilitation of 1260 ha of irrigated perimeters; Rehabilitation of 370 ha of Baso; Modernization and equipment of 100 existing irrigated orchards (5ha per village group); 1000 ha of reclaimed agricultural land; protection of watersheds through reforestation and small infrastructures to control erosion.
Landscape sites of the Sirba basin	
Intervention menu	Carry out actions of assisted natural regeneration, tree planting; Development of CES/DRS (dykes, dikes, living hedges), associated with vegetation in the watershed upstream of the SIRBA; the practice of agroforestry; organization of producers in groups; securing land of the site; capacity building of producers; make available to producers seeds, organic manure for soil fertilization; elaborate an integrated landscape development plan; identify the actors of the different components of the landscape sites; train technical agents on ILM; train local actors on ILM; support the implementation of the actions of the ILM Plan; support the financing of sub-projects (eligibility criteria to include a clause on the need to avoid new investments going beyond OP 7.50 para 7(a) for the improvement of the landscape site, identification of new landscape sites.
Target	100 ha lowland rehabilitated, watershed protection; reforestation, 2500 ha of reclaimed land
Landscape sites of the Mouhoun basin	
Intervention menu	Elaborate an integrated landscape development plan; Identify the actors of the different components of the landscape sites; Train the technical agents on ILM; Train the local actors on ILM; Support the implementation of the actions of the ILM Plan; Support the financing of sub-projects of landscape site improvement (eligibility criteria to include a clause on the need to avoid new investments going beyond OP 7.50 para 7(a). The identification of new landscape sites. Carry out actions of assisted natural regeneration, tree planting; Development of CES/DRS (dykes, dikes, living hedges), associated with vegetation in the watershed upstream of the Mouhoun; the practice of agroforestry; organization of producers in groups; securing land tenure of the site; capacity building of producers; Make available to producers seeds, organic fertilizer for soil fertilization.
Target	Rehabilitation of 100 ha of lowlands, 5,000 ha of reclaimed agricultural land; Production enhancement of 100 irrigated orchards

24. To improve yields of target crops, producers will be able to obtain agricultural inputs through a digital (agri-voucher) system. Based on the needs and lists of beneficiaries at a given FSRP site, corresponding quantities of inputs will be delivered to input distributors in their localities approved for this purpose. A voice message will inform producers of the distribution operation and allow them to prepare financially. An SMS will inform each producer of the quantity of seed and fertilizer that (s)he is eligible to purchase and of his/her contribution to the payment, which will be done via an Orange Money account before inputs are collected. Input will be distributed through the Government distribution system.

25. To ensure the sustainability of ILM investments, secure land tenure arrangements will be made for the investment sites. Three bodies are responsible for ensuring secure land tenure: the rural land services (SFRs) at the commune level, the Village Land Commissions (CFVs), and the Village Land Conciliation Commissions (CCFVs). FSRP will support the establishment of SFRs in communes that do not have them, as they are the only body authorized to carry out the procedures for assuring secure tenure of agricultural land (working with central services). The program will provide SFRs with a means of transportation (motorcycle); technical equipment and tools (computers, printer); office equipment; and supplies.

26. **Climate co-benefits.** Activities under Subcomponent 2.2 include measures to improve carbon sequestration, prevent land degradation, increase the use of renewable energy, increase soil carbon and restore land, conserve landscape biodiversity, and promote biodynamic agriculture (with high potential for mitigation co-benefits). Technologies that improve drought tolerance and practices that conserve water (such as zero tillage) will reduce water evaporation, with adaptation co-benefits. Beyond carbon mitigation, investments in ecosystem restoration, such as irrigation networks and tree planting, will enhance resilience to extreme weather by increasing water availability, supporting food security, and building natural resilience against droughts, floods, wildfires, and other climatic factors and natural disasters. The provision and regulation of ecosystem services also improves public health by providing vulnerable communities with clean air and water and fertile soil. These carbon co-benefits can be measured through the implementation of a simple and effective geo-referenced M&E system designed and implemented to assess the impacts of

decisions made and actions taken at the landscape scale. The measurement of carbon as well as its commercialization and the sharing of the benefits generated will be carried out with the support of the REDD+.

27. The activities of 2.2 will be carried out with the involvement of the competent technical structures through collaboration protocols and the recruitment of private service providers. Thus, technical structures such as the DGPV will ensure the implementation of development activities for developed lands as well as agricultural advisory support. The DGAHDI will oversee studies and activities related to water management and irrigation and the establishment of standard irrigation models. The DGFOMR will supervise activities related to the organization of producers, land security and structuring of farmers. The DGPMA will take care of the establishment of CUMAs and access to agricultural equipment. INERA will implement through a protocol with the project, activities of component 2.1. INERA and IRSAT will also be involved in training of trainers, innovation platforms as well as the most appropriate techniques and technologies development in the production and processing of agricultural products.

28. Component costs. Activities financed under this component will include rehabilitation of infrastructure (for example, for subprojects focused on water mobilization and land rehabilitation and restoration); the acquisition of equipment, planting material, and agriculture inputs (such as fertilizer, seed, processing equipment for nutrient-rich products); consultant services (for example, to prepare ILMPs); training (such as training in good food-processing practices); and grants (for example, for subprojects to strengthen linkages between producers, local developers, buyers, and the public sector through productive alliances). Funding from GAFSP under this subcomponent will be used to strengthen the nutritional resilience of farmers. The PIM will describe the financing mechanisms, eligible investments, eligible project sponsors, and evaluation and performance criteria for grants.

COMPONENT 3: REGIONAL FOOD MARKET INTEGRATION AND TRADE (US$29.8 million, of which US$20.5 IDA, US$5.5 million GAFSP, and US$3.8 million beneficiaries)

29. The objective of Component 3 is to develop value chains and strengthen integration among the countries of the West African subregion by removing trade-related obstacles. The implementation of Component 3 will facilitate trade between surplus and deficit areas and make it easier to market agricultural inputs and technologies within and across national borders. Component 3 will consolidate the achievements of the ECOWAS Regional Food Security Reserve and support the development of the strategic regional value chains identified by ECOWAS. This component is divided into two subcomponents.

30. ***Subcomponent 3.1: Facilitate Trade Across Key Corridors and Consolidate Food Reserve System (US$8.5 million IDA).*** Under the leadership and coordination of ECOWAS, Subcomponent 3.1 aims to strengthen the resilience of food systems and accelerate regional trade in a healthy business environment. At the country level, this subcomponent will support the following activities:

(a) **Harmonize national agricultural trade policies with regional instruments.** National policies will be harmonized with regional instruments on input trade, food safety, norms, standards, and non-tariff barriers for agricultural products. This subcomponent will finance a consultative process for the development, adoption, and dissemination of harmonized instruments.

(b) **Build national capacity for agricultural trade negotiations**. At the national level, technical staff and private partners involved in negotiating agricultural trade and tariff regimes will be trained. FSRP will support the participation of the national negotiating team in training organized by ECOWAS and in national facilitations and consultations, and it will disseminate training materials on regional trade.

(c) **Develop an ECOWAS Agricultural Trade and Market Scorecard.** ECOWAS will establish an accountability (scorecard) mechanism to assess implementation of policy commitments on

agricultural trade and market access in the ETLS and ECOWAP. FSRP will finance the participation of national experts in regional training sessions, training of trainers at the national level, preparation and validation of the Burkina Faso country report on the implementation of agricultural trade policies, and dissemination of the country report.

(d) **Improve Regional Food Reserve System performance.** This subcomponent will support Burkina Faso's adoption of financial instruments to support the Regional Food Reserve System, including detailed operational procedures for risk financing of regional reserves, as well as investments in infrastructure for stockpiling and purchasing grain at the community (local) level.

31. Subcomponent 3.2: Support the Development of Strategic and Regional Value Chains (US$21.3 million, of which US$12.0 million IDA, US$5.5 million GAFSP, US$3.8 million beneficiaries). This subcomponent will support the development of the targeted value chains (cowpeas, maize, market garden crops), focusing on the upstream and downstream segments to increase the supply and quality of agricultural products. It will also add value for sustainable food and nutrition security and is expected to have a tangible, positive impact on regional food security and trade. Value chains will be supported through activities to:

(a) **Strengthen value chain organization and financing.** National action plans to develop priority value chains with a demonstrated comparative advantage in the subregion will be updated and implemented. Activities will focus on the development of inter-professional organizations and multi-stakeholders' platforms in the targeted value chains; the continued organization of producers, PAs, and innovation platforms for integrated value chain development; and capacity building to ensure that producers can provide commodities suitable for storage. This subcomponent will provide material support for value chain development in the form of investments to facilitate collection and bulking of produce, processing, packaging, and national and cross-border marketing.

(b) **Support agricultural competitiveness and market access infrastructure.** This activity will provide financing and capacity building for producers and processors in the targeted value chains to obtain certifications for their products; support national implementation of the ECOWAS mechanism for responsible trade in agricultural products; support compliance with food safety and quality agreements and standards (including investments in logistics to preserve the quality and safety of agricultural products); pursue the labeling of specific products from the targeted value chains to boost trade; improve value-added through infrastructure investments in post-harvest storage and processing (storage and cold chain facilities); build capacity of the ministries, departments, and agencies involved in the trade of agricultural products at the national and intra-regional levels; streamline trade formalities and documentation; and support informal cross-border trade.

(c) **Strengthen multistakeholder coordination and promote a private sector enabling environment.** This activity will support multistakeholder workshops (convening umbrella organizations, funding institutions, public agencies, and private sector advocacy associations), as well as public-private dialogue and analytical studies, to catalyze policy reforms and support the establishment of a healthy business climate.

32. Under Subcomponent 3.2, the project will encourage private sector participation in value chain development through a co-financing approach with beneficiaries, implemented in close collaboration with financial institutions. Funding will particularly support youth and women agro-processors who want to start or sustain an investment in the selected value chains, including investments in food preserving and processing equipment, complemented by mentoring and market linkage services. Training in high-priority technical skills will also be supported to increase self-employment (again, with an emphasis on youth and women), generate income, and potentially create jobs.

33. Component costs. Activities financed under this component will include support for the rehabilitation of infrastructure, acquisition of equipment and materials, consultant services and training activities, as well as stakeholder consultation meetings.

COMPONENT 4: CERC (US$0.0 million IDA)

COMPONENT 5: PROJECT MANAGEMENT (US$12.4 million, of which US$11.4million IDA, US$1.0 million GAFSP)

34. Component 5 supports all aspects of project management and M&E. It includes funding for activities prior to startup, equipment and materials, M&E, compliance with fiduciary, procurement, environmental, and social requirements, knowledge management, and communication. Operating costs include salaries, bonuses, and allowances for staff of the national PIU, operating costs of the INERA, and the Regional Management Units (RMUs).

D. Beneficiaries and Areas of Intervention of the Program

35. Beneficiaries. The program will directly and indirectly benefit all stakeholders, mainly the most vulnerable, in the selected geographical intervention areas. All public actors with an important role in facilitating trade in agricultural products along the trade corridors will benefit from interventions as well. The program will place special emphasis on women and youth. The number of beneficiaries is estimated at 100,000 households (650,000 people), of whom 325,000 are women and youth (about 50 percent).

36. Areas of intervention. Drawing on lessons and results from the implementation of other programs and projects, the intervention zones were selected based on the following criteria: (i) potential for developable and recoverable land; (ii) areas of high production potential in strategic sectors; (iii) availability of water resources; (iv) incidence of monetary and food poverty; (v) mapping of projects and programs for greater synergy and complementarity; (vi) cross-border nature of the area (reinforcing the regional nature of the program interventions); and (vii) sustainability of production systems.

37. Seven regions were selected: (i) Boucle du Mouhoun; (ii) Hauts-Bassins; (iii) East; (iv) Center-East; (v) North; (vi) Center-West; and (vii) Center-South (see map in Annex 16. Given the cross-border nature of these intervention zones, priority will be given to actions along trade corridors and in cross-border areas that promote trade, consistent with the regional perspective of FSRP.

E. Project Costs

38. Table A1.3 summarizes the costs and financing of the project in Burkina Faso.

Table A1.3: Costs and financing of FSRP, Burkina Faso (US$ millions)

Component / Subcomponent	IDA	GAFSP	Total
Component 1: Digital advisory services for the agriculture and food crisis prevention and management	**5.3**	**-**	**5.3**
Subcomponent 1.1: Upgrade food crisis prevention and monitoring systems	1.8	-	1.8
Subcomponent 1.2: Digital hydromet and agro-advisory services for agriculture producers	3.6	-	3.6
Component 2: Sustainability and adaptability of the Food System's productive base	**52.8**	**17.5**	**70.3**
Subcomponent 2.1: Consolidate the regional agricultural innovation system	9.9	0.3	10.2
Subcomponent 2.2: Strengthen regional food security through ILM	42.9	17.2	60.1
Component 3: Regional food Market integration and trade	**20.5**	**5.5**	**26.0**
Subcomponent 3.1: Facilitate trade along key corridors and consolidate the food reserve system	8.5	-	8.5
Subcomponent 3.2: Support the development of strategic regional value chains	12.0	5.5	17.5
Component 4: CERC	**-**	**-**	**-**
Component 5: Project management	**11.4**	**1.0**	**12.4**
Total	**90.0**	**24.0**	**114**

III. IMPLEMENTATION ARRANGEMENTS

A. Institutional and Implementation Arrangements

39. FSRP will be implemented in Burkina Faso under the technical supervision of the Ministry of Agriculture, Hydro-Agricultural Developments and Mechanization (MAAHM) and under the financial supervision of the Ministry of Finance and Development. In accordance with Decree No. 2018-0092/PRES/PM/MINEFID of February 15, 2018 on the general regulations for development projects and programs carried out in Burkina Faso, the program is classified in category 1, namely, under the direct control of the Administration. The program will be managed by the same PIU as PReCA. The PIU will be strengthened to ensure that it has sufficient capacity to carry out its responsibilities.

40. The review committee for budget program 075 will constitute the steering committee for FSRP. This committee meets in ordinary sessions twice a year, or once every six months, at the invitation of the Chairman.

41. At the national level, the program coordinator is the head of the parent budget program. As noted, FSRP will be managed by the existing PReCA coordination unit. The PReCA Project Coordinator will also oversee the execution and monitor the implementation of Burkina Faso FSRP. The FSRP will recruit a Technical Manager to strengthen the technical coordination of FSRP activities, he/she will report to the Project Coordinator. The PreCA Administrative and Finance Specialist will also be responsible for FSRP operations. An additional team of experts and key support staff will also be recruited or appointed, within three months of project effectiveness, for the implementation of FSRP activities. This team will include (i) a Chief Accountant; (ii) an Assistant Accountant; (iii) a Procurement Specialist; (iv) an Agro-meteorologist; (v) a Specialist in nutrition and gender; (vi) an Agronomist; (vii) a M&E Specialist; (viii) an SEA/SH Specialist; (ix) an Environmental specialist; (x) a Social development specialist; and (xi) a Security Specialist.

42. As the Program's approach is based on the principle of subsidiarity, it is envisaged that memoranda of understanding (MoUs) will be signed between the PIU and other entities to carry out specific activities. Regional Management Units (RMUs) will be set up in regions where FSRP operates if no PReCA RMU is present. In regions where PReCA operates, its RMU will be reinforced to manage FSRP field activities. Each RMU team will include at least three technical staff (1 M&E Officer, 1 Agronomist, and 1 Secretary-Accountant). These staff will be appointed or assigned on a competitive basis. More specifically:

(a) **Component 1** will be implemented in collaboration with the HYDROMET Project (P164078), ANAM, SAP and SE CNSA, and the University of Ouagadougou. The program will sign protocols that specify the implementation mechanisms.

(b) **Under Subcomponent 2.1**, the program management will sign protocols with INERA for the execution of research activities relating to the transition of NCS-FL from a national center to a regional center. NCS-FL will be responsible for coordinating this activity. INERA management will coordinate all research activities across all research centers involved in the implementation of program activities.

(c) **For Subcomponent 2.2**, the program will recruit, three months after the project effectiveness, experienced NGOs or professional facilitators to facilitate the planning process in the selected landscapes. NGOs/facilitators will work closely with the RMUs to ensure bottom-up participatory planning and to build synergies to implement the ILM action plans.

(d) **For Component 3.2**, the program will recruit service providers to train beneficiaries, support the development of business plans, and develop links with financial institutions and to markets.

(e) **Reporting and performance**. The Focal Point of Subcomponent 2.1, facilitators for Subcomponent 2.2, and service providers in Subcomponent 3.2 will report to the Program Manager on the physical and financial implementation of FSRP activities. The program management model will be based on performance and accountability. Clear performance indicators will be part of the protocols and contracts between the program and technical partners. These arrangements are subject to review if performance is poor. Additional details will be provided in the PIM.

B. Monitoring and Evaluation

43. The program will develop and implement an operational mechanism for programming, monitoring, evaluation, disseminating, and communicating program achievements. The M&E system will be integrated with the national budget program to which FSRP is attached. The review committee, PIU, and program M&E Specialist are the main actors in the M&E system. In addition, new monitoring technologies (tools) will be promoted.

44. In accordance with agreements currently in force, specific monitoring of activities will be carried out by: (i) the General Directorate for Sectoral Studies and Statistics of the Ministry in charge of Agriculture, sectoral reviews, sectoral evaluations, as well as the program's activity reports; (ii) the General Directorate for the Economy and Planning through portfolio reviews, supervision missions, evaluations during the General Assembly of projects and programs, and monitoring of the Public Investment Program; and (iii) technical and financial partners through support and supervision missions, portfolio and technical reviews, and mid-term reviews.

45. In addition to these supervisory and M&E bodies, and in view of the cross-cutting and multi-actor nature of the program, a technical monitoring committee involving all program stakeholders will be set up to ensure the participatory nature of the program and better targeting of beneficiaries. An order of the Minister of Agriculture will specify the composition, responsibilities, and functioning of the technical monitoring committee.

46. The program will develop a manual of procedures for M&E and knowledge management, covering arrangements for the internal and external M&E of the program. Internal monitoring will be carried out by the M&E manager using the dashboards developed for this purpose. Periodic activity reports will be produced as required (quarterly and annual).

47. Joint supervision and monitoring missions, a mid-term review, a final review, a completion report, as well as specific or thematic studies will be organized during FSRP implementation.

C. Environmental and Social Risks

49. Environmental and social risks and impacts. The FSRP uses the World Bank's ESF, a holistic tool for identifying and managing environmental and social risks and opportunities in program design and evaluation. The main potential environmental and social risks and impacts of the program (including investments, advisory services, and other support) are associated with agricultural and pastoral activities. Negative environmental impacts related to agro-pastoral activity potentially include deforestation; soil degradation through erosion; destruction of sensitive habitats; clearing of wooded areas; soil erosion and loss of fertility; pollution of groundwater, rivers, and water bodies through the use of large quantities of agrochemicals; destruction of non-target species by pesticides; and others. Potential negative social impacts include risks of land loss and expropriation; loss of income among small-scale producers through discriminatory, non-inclusive, or non-transparent practices and the absence of mitigating measures; health risks related to the use of pesticides (due above all to the absence of integrated pest management); water-borne diseases that can lead to loss or displacement of labor; poor management of pesticide packages; loss of grazing land with the development of agricultural perimeters; pollution of wells and water points by livestock; and the exclusion of vulnerable groups, especially women, in the allocation and management of agricultural land.

50. Measures to mitigate environmental and social risks and impacts are listed in Table A1.4.

Table A1.4: Environmental and social risk mitigation measures

Nature of the impact	Mitigation measure

Decreased soil fertility	Restoration of degraded soils Contribution of organic matter Better use and management of mineral fertilizer recommended by research Fight against deforestation Erosion control Use of nitrogen-fixing plants Use of technology and sustainable land management practices Awareness and training of producers
Pollution and poisoning	Adequately train all actors in the input use chain Disseminate environmental and social information on agricultural activities (pesticide management, etc.) Scrupulously adhere to recommendations on the management and use of fertilizers and pesticides Compliance with pesticide storage conditions Raising awareness of the risks of food poisoning Scrupulously adhere to the protective measures for mixing and using pesticides Monitoring of pesticide residues in crops
Reduction of biodiversity	Promotion of biological control Promotion of intensive organic farming Sound management of wetlands and natural habitats Reduce uncontrolled expansion of agriculture
Development of water-borne diseases	Improve water quality Avoid the use of undeveloped water sources Improve accessibility and security of water supplies Reduce the need for contact with infected water Reduce feco-urinary pollution of surface waters Control mollusks and cyclops
Construction impacts	Develop and implement a site ESMP according to the nature and scope of the work Prefer existing quarries and restore them after the work is completed Awareness and protection of personnel Ecological management of construction waste

IV. RISKS

51. The overall risk associated with the implementation of the FSRP is rated as "Substantial." Program risks deemed high or substantial, and associated mitigation measures, are summarized as follows:

(a) **Policy and Governance (*Substantial*).** Uneven distribution of resources and apparent lack of accountability in the management of public resources remains a serious problem; these issues are addressed in the World Bank CPF (2018) as part of its overall dialogue with the country; project activities will build on actions taken in this area under the CPF.

(b) **Macroeconomic (*Substantial*).** Insufficient progress has been made on the macroeconomic front in recent years; risks stem partly from the security situation and partly from volatility of regional and international market prices. These risks will diminish as security conditions improve. At the same time, the Government will support an environment more conducive to private sector development and competitiveness.

(c) **Technical Program Design (*Substantial*).** The overall technical program designed to achieve the PDO is large and necessarily complex. The PIU management team will use an appropriate degree of flexibility to establish an implementation plan that breaks down operational tasks into manageable components and takes a sequential approach.

(d) **Institutional Capacity for Implementation and Sustainability (*Substantial*).** Reasons for this assessment include weak capacity of MAAHM support services, inadequate laws and regulations, and various distortions in the promotion of private sector involvement in agriculture and agribusiness. The program will build capacity in key MAAHM directorates (extension and advisory services, sanitary and phytosanitary issues, and so on) and address policy and regulatory issues regarding the environment for private sector participation in targeted value chains.

(e) **Fiduciary (*Substantial*).** The FM and contracting capacity for the program is weak. This issue will be addressed by recruiting qualified experts for the PIU and training staff in World Bank fiduciary and procurement procedures.

(f) **Other Risks (*High*).** The security situation in the country has recently deteriorated. Security concerns, particularly in the program areas, remain difficult to address, to the extent that they may represent a serious obstacle to program implementation in terms of attracting qualified bidders and service providers, as well as carrying out World Bank and government supervision of program activities. The proposed mitigation measure is to hire specialized local NGOs and service providers to provide adequate program management and supervision on the ground where unfavorable security conditions could prevent government services from intervening directly and/or the World Bank from exercising due diligence in supervising the program in the areas concerned.

ANNEX 2: FOOD SYSTEM RESILIENCE PROGRAM FOR THE REPUBLIC OF MALI

I. STRATEGIC CONTEXT

A. Country Context

1. Mali is a low-income, fragile country that has faced extraordinary setbacks in recent years. It is a landlocked economy which is highly dependent on agriculture, and thus vulnerable to external shocks and adverse weather condition. It is also a fragile state that has witnessed persistent difficulties related to political coups, social tensions, insecurity and violence. With a per capita GDP of US$875 (current US$) in 2019, Mali is in the lower 15th percentile of the world's income distribution.

2. Macro-fiscal stability has been maintained until recently but has not been enough to translate into physical and human capital accumulation. Growth quickly recovered after the 2012 crisis and has averaged 5.7 percent per year since 2014. Total revenues also recovered but fluctuate due to unstable tax revenue collection. The overall fiscal deficit averaged 3.3 percent of GDP during 2016–19, broadly observing Mali's commitment to the WAEMU convergence criterion of 3 percent. However, this has been achieved through compromised expenditure patterns due to domestic revenue fluctuations. The increasingly fragile security situation has also led to spikes in security expenditure, crowding out spending on public services and investment. Fixed capital stock per capital has declined by 17 percent between 2000 and 2015. Mali ranks near the bottom of the Human Capital Index (HCI).

3. The COVID-19 crisis and the 2020 military coup ended a period of relatively good economic growth and pushed the fiscal deficit to a high not seen since 2000. Real GDP is expected to contract by 2 percent in 2020 (-4.9 percent in per capita terms), following reduced global demand and domestic containment measures due to COVID-19, and aggravated by economic sanctions and delayed external support related to the coup. Assuming a smooth political transition, growth is projected to gradually return to pre-COVID level over the medium term as the pandemic wanes and private consumption and public investment recover. However, as a result of increased social spending and revenue underperformance, the 2020 fiscal deficit increased to 6.2 percent of GDP, from 1.7 percent in 2019, and is likely to remain high in the medium term.

4. Mali's poverty remains high and concentrated in rural areas. Even though Mali's poverty rate has declined in the last 5 years, poverty remains pervasive and is concentrated in rural areas, especially in southern Mali (90 percent), where the population density is the highest. Around 42 percent of the population live in extreme poverty and 8.7 million people—more than 45 percent of the population—live in crisis-affected areas where the basic service delivery has deteriorated. At the same time 29 percent of the population is malnourished. Malnutrition is very high and the proportion of children suffering from stunting increased from 27.8 per cent in 2010 to 29.3 per cent in 2015, and the prevalence of wasting increased from 8.9 per cent to 12.4 per cent over the same period. The country lacks critical infrastructure as only 3 percent of the roads are tarmacked, there is an energy deficit and only 53 percent of the population has access to electricity while access to services such as health and education is also limited. Life expectancy is 59 years and the country ranks 182nd out of 188 countries in the 2019 United Nations Development Programme HDI.

5. Security has been precarious in Mali since the 1990s. Rising insecurity and the outbreak of armed conflict in northern Mali in 2012 have affected all types of food production systems (agriculture, transhumant livestock, river fishing in the Niger River valley and lake area), as well as food trade with southern Mali and neighboring countries.

6. Climate change in Mali is evident and widespread and has already changed weather patterns and increased weather variability, with impacts on food security, livelihoods, conflict and migration. Mali has already experienced warmer temperatures, greater weather variability, changed rainfall patterns, and more extreme weather events, such as longer dry seasons and droughts, or more intense rainfall. Between 1980-2014, nearly 7 million people were affected by 28 droughts and floods with an economic cost of these

extreme events valued at US$140 million. Erratic rainfall alone was responsible for reducing primary sector growth from 7.6 percent in 2016 to 4.8 percent in 2017. Most (over 72 percent) of Mali's population is in the medium to high vulnerability category for climate hazards. These patterns disproportionately affect the rural poor, and can lead to changes in traditional transhumance patterns, greatly increasing pressure on limited forage resources and causing conflict.

7. Food insecurity and malnutrition are persistent challenges in Mali. Starting with the cyclical droughts of the 1970s, food insecurity and malnutrition have worsened in tandem with recurrent severe poverty, conflict, variable rainfall from year to year, and frequent and intense droughts. Food insecurity manifests itself in two main ways: (i) cyclical food and nutrition insecurity and (ii) structural food and nutrition insecurity. Studies from 2015 to 2020 find that 29.3 percent of the population on average is food-insecure and suffers from global acute malnutrition (GAM). For comparison, the World Health Organization (WHO) alert level is 10 percent.

B. Sector and Institutional Context

8. Climate, soil, and water availability are the main factors determining four main agro-climatic zones in Mali. The Saharan area covers 51 percent of the territory and has a desert ecosystem. The Sahelian zone (26 percent of the country) including the Niger interior delta has an arid and semiarid ecosystem. The Sudanian zone (17 percent of the country) in the Center has a savanna ecosystem. The Sudano-Guinean, or sub-humid, zone in the South has a forest ecosystem.

9. The agriculture sector employs over 72 percent of Mali's population and accounts for more than 32 percent of GDP (on average over 2010–2019). The crop subsector accounts for over 50 percent of agricultural GDP and consists mainly of subsistence agriculture (85 percent of the added value of the subsector). Livestock is the second-most important subsector, accounting for over 37 percent of the sector's GDP, while fisheries represent 7 percent, and forestry 5 percent.

10. Agriculture has significant economic potential through production and productivity growth. The potential for agricultural growth in Mali is enormous as only 7 percent of its 43.7 million ha arable land is currently cultivated. Subject to the Sudano-Sahelian climate, its agricultural performance varies from one year to the next. The sector is highly dependent on rainfall despite having the potential to irrigate an estimated 2.2 million hectares, including more than 1.8 million hectares in the Niger River Basin. Yields of principal value chains in Mali are also low. This low performance could be explained by the limited intensification of farming in Mali as it has one of the lowest usage rates of agricultural inputs such as fertilizers while mechanization intensity is also low. Productivity increase is a key challenge in Mali as it will promote food security, reduce malnutrition, create employment opportunities for both men and women, and increase and diversify exports beyond gold. Increasing the area under irrigation would further improve productivity and resilience of the sector by reducing vulnerability to climate change.

11. With the objective of fostering socio-economic development and improving food security, the Government has developed a framework for the agriculture sector. The Agricultural Orientation Law (LOA) of 2006 provides a single unified framework for all legislative and regulatory provisions affecting activities in the agriculture sector. According to this law, at least 15 per cent of publicly developed land is to be allocated to women.

12. To implement the LOA, Mali adopted, in 2015, an Agricultural Development Policy (PDA) and a ten-year investment plan - the National Programme for Investment in the Agriculture Sector (PNISA). The PDA has two major pillars: (i) strengthening the resilience of smallholder producers; and (ii) selecting agricultural growth hubs (agropoles) to develop selected agricultural value chains. The PNISA is Mali's national program for agriculture sector development, bringing together all current and future projects and programs. It has retained five value chains, rice, maize, millet and sorghum, inland fisheries, and livestock products (both meat and dairy) for strategic investments. Other relevant policies are the National Food and

Nutrition Security Policy (*Politique nationale de sécurité alimentaire et nutritionnelle)*, which aims at improving sectoral policy coordination, enhancing food security and nutrition governance, and fostering regional and subregional integration processes), the Climate-Smart Agriculture Investment Plan (which prioritized a set of 12 investments and actions needed to boost crop resilience and enhance yields for over 1.8 million beneficiaries and their families1, helping them adapt to climate change),the National Gender Policy, National Policy on Climate Change (2011), National Climate Change Strategy, National Action Plan, National Decentralization Policy 2015-2024, and the 2020-2024 Plan of Action, and Agricultural Land Policy.

6. Despite the current policy framework and key policy decision implementation, the agricultural practices in Mali remain outdated in the face of unprecedented demographic, climatic, insecurity and technological developments. The key challenges facing Mali's agricultural sector can broadly be categorized as twofold: (i) strategic; and (ii) operational (implementation). The main strategic challenges in the sector include the following: (i) low food security; (ii) vulnerability to climate shocks; (iii) inadequate natural resources management; (iii) insufficient and poor condition of production, processing and marketing infrastructure; (iv) limited access to financing; (v) limited access to markets; (vi) limited use of technical innovations; (vii) weak capacity of public, private and community-based institutions in charge of the sector development; (viii) insufficient incentives for private sector engagement; (ix) lack of secure land tenure, in particular access to land for women and youth; (x) underequipped producers; and (xi) the impact of the insecurity crisis on agricultural activity. However, it is important to be cognizant of the fact that different regions of Mali may face challenges of different nature and severity. For example, northern and southern Mali have different conditions for agricultural production with the north being more vulnerable to droughts and desertification.

13. The main institutional actors in the areas of food security, agricultural production, natural resource management, and sustainable land and water management are:

(a) **The institutional framework for food security management in Mali**. The framework for managing food security includes the National Food Security Council, chaired by the Prime Minister; the Technical Committee for the Coordination of Food Security Policies, chaired by the Food Security Commissioner; and the Regional, Local, and Community Committees at the different administrative levels. To reduce food insecurity, Mali has undertaken major reforms in cereal policy and food crisis prevention and management. The Government has developed a national policy (PolNSAN) to guide all actions to promote national food and nutrition security.

(b) **The Ministry of Environment, Sanitation, and Sustainable Development (MEADD)** is responsible for the conservation of natural resources and for integrating environmental and social sustainability into sectoral policies, strategies, and programs. The Government adopted a National Strategic Investment Framework (NSIF) for Sustainable Land and Water Management (SLM) in 2010. In 2011, MEADD approved a national climate change policy, strategy, and action plan, which is predicated on the effective and efficient use of agro-meteorological data and inputs, the widespread use of low-energy and high-efficiency irrigation systems, and rainwater harvesting. The policy also calls for an increase in the use of agroforestry and conservation agriculture techniques.

(c) **The Ministry of Rural Development** is mandated to ensure the implementation of agricultural and livestock policies and strategies that promote sustainable, modern, and competitive agricultural practices for family production units, through the optimal use of local potential and know-how.

(d) **The Ministry of Mining, Energy and Water (MMEH)** formulates and oversees the implementation of national policies on mineral, energy, and water resources; the integration of a watershed approach in land and territorial management programs and projects; and the promotion of renewable energy technologies.

C. Relevance to Higher Level Objectives

14. FSRP is aligned with key Malian sectoral policies and strategies, among others the Malian Agricultural Development Policy (PDA) and the National Programme for Investment in the Agriculture Sector (PNISA). The PDA has two major pillars: (i) strengthening the resilience of smallholder producers; and (ii) selecting agricultural growth hubs (*agropole*s) to develop selected agricultural value chains. The PNISA is Mali's national programme for agriculture sector development, bringing together all current and future projects and programmes. It has retained the five value chains of, rice, maize, millet and sorghum, inland fisheries, and livestock products (both meat and dairy) for strategic investments. Other relevant policies are the National Food and Nutrition Security Policy, which aims at improving sectoral policy coordination, enhancing food security and nutrition governance, and fostering regional and subregional integration processes; and the Climate-Smart Agriculture Investment Plan which prioritized a set of 12 investments and actions needed to boost crop resilience and enhance yields for over 1.8 million beneficiaries and their families1, helping them adapt to climate change.

15. The project will contribute to the main objectives of the ongoing CPF to improve food system resilience, in close coordination with ongoing World Bank programs and the activities of other development partners. The project will support the CPF objectives under Area of Focus 2 *Create economic opportunities* and Area of Focus 3 *Building resilience*. Project interventions and activities will support improving productive capacity and market integration for farmers, agriculture value chain diversification and improving infrastructure.

16. Gender. Mali adopted a national policy on gender (Politique Nationale Genre) in 2010 to promote equality between women and men through reforms targeting among others the agriculture. The policy specifically takes into account inequalities related to rights; access to basic social services and infrastructure; access to productive assets, employment, and income; and governance, representation, and participation of women and men. Recognizing these inequalities, FSRP will pursue activities to close gender gaps, including diploma training and affirmative action for research teams, with preference shown to women. To improve women's access to agricultural inputs, they will benefit from subsidies of up to 90 percent on fertilizer and seed. Women will also receive preferential access to agricultural land; 15 percent of the 810 ha to be reclaimed for lowland rice production will be allocated to women and youth, and 30 percent of the area (75 ha) dedicated to integrated community agricultural farms will be allocated to women, youth, and the disabled.

17. Citizen engagement. Citizen engagement, stakeholder consultation, and participation are the foundations of the program's approach and will continue throughout program design, preparation, and implementation. Feedback from beneficiaries, particularly vulnerable groups (women, pastoralists, youth), will provide essential input for commune-level local development plans (*Plans de Développement Social, Economique, et Culturel*). To align FSRP activities with local realities, the program will organize public meetings for local people to set priorities for interventions. Citizen engagement and beneficiary feedback will be monitored by measuring beneficiary satisfaction with project interventions. Three main approaches will be used to encourage participation:

(a) **Representatives of CSOs will be invited to provide feedback** to ensure that beneficiaries' concerns are addressed and to participate in the decision-making process regarding project implementation activities.

(b) **Focus group discussions and beneficiary satisfaction surveys** will periodically collect feedback to evaluate FSRP implementation (effectiveness, inclusiveness, quality, delivery, and targeting). Implementation support missions and other evaluations will use this information to address beneficiaries' concerns, improve implementation, and achieve better results.

(c) **Members of participating communities and CSOs will take part in implementation support missions and the joint evaluation of results at the end of the program.**

II. PROJECT DESCRIPTION

A. Project Development Objective

18. The Project Development Objective (PDO) is to is to increase preparedness against food insecurity and improve the resilience of food systems in Mali.

B. Project Results Indicators

19. Progress towards the achievement of the PDO will be measured by the following indicators, in line with the indicators of the FSRP MPA.

Table A2.1 Results indicators for Mali

Indicator	Baseline	End target
PDO-level (outcome) indicators		
Program beneficiaries (number and percentage of female beneficiaries)	0	650,000 (40%)
Reduction of food insecure people in program targeted areas (percentage)	0	25
Food system actors accessing hydro and agrometeorological advisory services (number and percentage of female beneficiaries)	0	150,000 (40%)
Producers adopting supported climate-smart agricultural technologies and services (number and percentage of female beneficiaries)	0	500,000 (40%)
Land area under sustainable landscape management practices in ha	0	12,000
Share of intra-regionally traded production in selected value chains (rice, maize, onions/scallion) (percentage)	TBD	30
Intermediate Results Indicators		
C1: Digital advisory services for regional agriculture and food crisis prevention & Management		
Satisfaction of farmers who have access to usable weather, climate and ag-advisory services (percentage)	0	80
Improved access to local climate information services with digital information platforms (Yes/No)	No	Yes
Agreements involving co-production of agro-hydro-meterological services between the public and private sectors (number)	0	2
C2: Sustainability and adaptive capacity of the food system's productive base		
Technologies made available to farmers by the consortium of NCoS, CGIAR and other international research institutes (number)	0	10
Percentage of nutrition sensitive technologies (percentage)	0	30
Sub-projects selected from the ILM plans with climate-resilient measures implemented (percentage)	0	70
Spatial information system established and operational for designing and planning climate-resilient land management practices (Yes/No)	No	Yes
C3: Regional food market integration and trade		
Private-sector actors involved in regional agriculture trade that are supported by the Program (number)	0	100
Women farmers reached with assets or services to improve commercialization in selected value chains (number)	0	12,000
C5: Project management		
Beneficiaries satisfied with the Program's interventions (percentage)	0	80
Grievances registered and addressed by the Program (percentage)	0	90

C. Project Components

20. In line with the overall MPA program, Mali's interventions include activities designed to respond immediately to the food insecurity crisis as well as medium- and longer-term investments. All activities to be implemented are described in the following.

COMPONENT 1: DIGITAL ADVISORY SERVICES FOR AGRICULTURE AND FOOD CRISIS PREVENTION AND MANAGEMENT (US$10.3 million IDA)

21. ***Subcomponent 1.1: Upgrading Food Crisis Prevention and Monitoring Systems (US$3.4 million).*** This subcomponent aims to strengthen and transform the regional food security system through support to improve the national collection, analysis, forecasting, and management of data relevant to food security and risk management decisions. Subcomponent 1.1 will be implemented jointly by Mali-Météo, the Plant Protection Department (OPV), and Early Warning Systems Office (SAP). This subcomponent supports activities to:

(a) **Improve regional and national capacity to deliver reliable information services on vulnerability, nutrition, and food security.** This activity will expand regional institutional capacity for monitoring and providing food security information services, including through the *Cadre Harmonisé*. Support will focus on strengthening national capacity, particularly of Mali Météo, to contribute to the coordination and organization of the regional food security system in conjunction with the AGRHYMET Center, other relevant regional institutions, and with the greatest possible participation of the private sector.

(b) **Reorganize and improve regional and national pest and disease monitoring and management mechanisms.** Current pest surveillance mechanisms will be reorganized, and new pest and disease management mechanisms will be developed and implemented by OPV.

(c) **Strengthen regional collaboration for food crisis prevention.** This activity will improve regional collaboration between the public, private, and academic sectors by facilitating harmonized approaches at the regional level, including the establishment of a learning platform for national climate information providers. It will strengthen the regional agricultural information system by integrating national and regional information systems to provide multidimensional data on vulnerability. It will also increase collaboration between the public, private, and academic sectors to support decision making through improved advisory services.

22. ***Subcomponent 1.2: Strengthening Digital Hydromet and Agro-Advisory Services for Farmers (US$6.9 million).*** This subcomponent aims to increase access to and use of location-specific information relevant to food security by policy makers and farmers through national extension systems. It will be implemented jointly by the Mali HYDROMET Project (P161406) (which is improving the delivery of hydrometeorological, early warning, and emergency response services), Mali-Météo, and telecommunication companies, and includes activities to:

(a) **Improve the production of climate, hydromet, agromet, and impact-based information for use by decision-makers, farmers, pastoralists, and other actors in the food system.** These activities will build capacity at the national level for agro- and hydrometeorological services (public, private, and academic) to (i) gather data on hydrometeorological phenomena to complement regional and global data and infrastructure and (ii) provide impact-based forecasting, warning, and advisory services to anticipate and respond to agricultural and food security requirements. In particular, Mali Météo will receive support to set up meteorological assistance groups, collect data at the local level, develop seasonal and intra-seasonal agro-meteorological forecasts, and build links with local media to better reach users. The use of new technologies by a significant portion of the population (especially youth) and the increasing sophistication of agricultural practices requires Mali-Météo to partner with telecommunications companies to offer highly marketable services of recognized quality to a range of

users, including institutions providing financing for agriculture (banks, insurance companies).

(b) **Support the timely delivery and use of essential agro-hydrometeorological information to key users.** This activity will support the timely provision of agro-meteorological information to farmers through multiple channels, including digital technologies, in partnership with the private sector (telephone companies, traders of agricultural commodities, service providers), the academic sector, and civil society.

(c) **Strengthen the financial and institutional sustainability of regional and national institutions providing climate, hydromet, and agromet information.** This activity provides support for reviewing policies related to collaboration between the public, private, and academic sectors and developing a national strategy for public-private partnerships to collect and disseminate agro-meteorological information and data. This work will give close attention to policies on data regulation and accessibility, particularly policies for accessing national meteorological data, to enable better collaboration between the public, private, and academic sectors. This activity will also support the development of climate information to design better risk financing instruments (emergency funds, insurance, derivatives, contingency loans).

COMPONENT 2: SUSTAINABILITY AND ADAPTIVE CAPACITY OF THE FOOD SYSTEM'S PRODUCTIVE BASE (US$30.3 MILLION IDA)

23. ***Subcomponent 2.1: Consolidate Regional Agricultural Innovation System (US$5.8 million).*** This subcomponent aims to strengthen regional research and extension systems to sustainably deliver improved technological innovations, including climate-smart, nutrition-sensitive, and gender- and youth-friendly technologies. Specifically, this subcomponent will strengthen capacity in Mali to support the regional agricultural research system—the National Centers of Specialization (NCSs) and Regional Centers of Excellence (RCoEs) established under WAAPP—to refine existing technologies and accelerate technology transfer at the regional level from national research programs and from the CGIAR centers.

24. Subcomponent 2.1 will strengthen Mali's national agricultural innovation system by supporting activities to:

(a) **Strengthen National and Regional Research Centers**, in particular the National Center for Rice Specialization (CNS-Riz) to become an RCoE for Rice (CRE-Riz). Infrastructure financed and partially built under WAAPP will be completed and equipped for operation, including a headquarters to coordinate research, a guest house and multimedia center in Niono, and an entomology laboratory in Sikasso. Support will be provided to obtain ISO certification and labeling of CNS-Riz materials, for the NationalAgricultural Research Council (CNRA) to coordinate CRE-Riz, to finance the training of young researchers to ensure the sustainability of research activities, and to finance the preparation of regional strategic and applied research projects by national and regional rice researchers.

(b) **Deepening and expanding regional R&D networking.** This activity will support the development of proposals for regional collaborative research on technologies and innovations with other western African countries and national, regional and international research institutions. This activity will also focus on updating the strategic plan for agricultural research to take into account new approaches such as the IAR4D approach, which allows for the establishment of innovation platforms in priority value chains such as rice, maize, and shallots/onions.

(c) **Modernize national extension services.** This activity will support the development of digital agriculture interventions (e-extension, e-husbandry, etc.); and agricultural advisory approaches tested by the private sector and producer organizations

(d) **Promote technology access and exchange**, especially rice production technologies and know-how. This activity will support participation in training, meetings, symposia, scientific exchange visits,

and regional planning of research (at both the regional and national levels). It will encourage collaborative agricultural research with stakeholders in the subregion by funding commissioned or competitive R&D subprojects at the national and regional level, based on needs identified by stakeholders through the regional and national innovation platforms.

25. The activities and modernized approaches under Subcomponent 2.1 will include not only agricultural areas (and farmers) across Mali, but arid and semi-arid areas (agro-pastoralists and pastoralists) and riverine areas (fishers). Links will be created with the Drylands Development Project (P164052) and the ongoing Economic and Environmental Rehabilitation of the Niger River (P151909).

26. This subcomponent will be implemented in collaboration with CNRA, the Rural Economy Institute (IER), agriculture directorates at the central and regional level - such as the National Department of Agriculture (DNA), National Rural Engineering Department (DNGR), and others - as well private companies, innovation platforms, other research institutions, farmer organizations, and producer cooperatives.

27. ***Subcomponent 2.2: Strengthen national food security through ILM (US$24.5 million).*** Through the implementation of the ILM approach in the target areas, this subcomponent aims to sustainably improve food security and the nutritional status of vulnerable rural households and their resilience to climate hazards. ILM is a spatial, ecological, and socio-economic approach to natural resource management that develops a long-term collaboration between groups of land managers and stakeholders to achieve their multiple objectives with respect to the landscape (agricultural production for food security, provision of ecosystem services, protection of biodiversity, mitigation of extreme hydrological events, local livelihoods, human health, and well-being). The target landscapes for this subcomponent are located in Ségou Region (Ségou and Niono) and Sikasso Region (Koutiala, Yorosso, Kadiolo, and Sikasso).

28. At the start of FSRP, a workshop will be organized in each target landscape for the various stakeholders to agree on an action plan to implement three groups of core ILM activities:

(a) **Establish participatory ILM.** This group of activities will raise awareness and mobilize action to initiate participatory landscape management. Landscapes will be characterized and delimited by agro-ecological zone and sector (agriculture, livestock, hunting, forestry, and so on); an integrated development vision and ILM plan will be developed in close collaboration by the landscape stakeholders through a landscape development committees (to be newly established or through strengthening of existing committees) and supported by capacity building.

(b) **Enhance the resilience of eco- and food systems in priority landscapes.** This group of activities includes investments required urgently at the landscape level to restore physical, productive, and cultural functions—and thus restore ecosystem functions and resilience. During the preparatory phase of the project, priority activities were identified by stakeholders (for a total investment of about US$9 million) (see table A2.2). These investments are not directly dependent on the results of planning activities thus will not be compromised by delays in the implementation of the integrated landscape vision and action plan. Other actions will come from the planification – all actions will be screened for technical feasibility once selected by the communities, in a second round of prioritization. The two groups of activities will be carried out in parallel, with progress in each group feeding into the other. The activities will be informed by the results of the research and innovation in Subcomponent 2.1.

(c) **Secure resilient eco- and food systems beyond priority landscapes.** The project will support the development of six formal Productive Alliances (PAs). Groups of small-scale producers of selected key products (such as non-timber forest products) in the target landscapes will receive support to develop business plans and enter into contractual agreements with national and international buyers. Support for capacity building and/or equipment (including, for example, small trucks or cold storage facilities) will be tailored to the specific contractual arrangements and business plan of each

PA. This focus of this activity on connecting small-scale producers to markets that they could not otherwise access is highly complementary with activities in Subcomponent 3.2.

(d) **Strengthen the resilience of food and nutrition systems in priority landscapes.** Promotion of a diversified and high nutritional value food based on produced and accessible foods; sensitization of households to good infant feeding practices (complementary food for pregnant women, children); sensitization to the use of income from the sale of agricultural productions for the purchase of food with high nutritional value and promotion of self-consumption of the production.

Table A2.2.: Interventions in priority landscapes

	Site 1: Koutiala and Yorosso	Site 2: Sikasso and Kadiolo	Site 3: Segou and Niono
Land and Watershed Restoration			
Type of intervention and target	The program plans to restore 1400 hectares of degraded land in 12 communes/120 villages through the establishment of half-moons, zaï, stone cordon, the setting in, defense, agroforestry, assisted natural regeneration.	The program plans to restore 1,400 hectares of degraded land in 12 communes/120 villages by setting up half-moons, zaï, stone cordon, defensing, agroforestry, assisted natural regeneration.	The program plans to restore 1,200 hectares of degraded land in 10 communes/80 villages through the establishment of half-moons, zaï, stone cordon, the setting of defenses, agroforestry, assisted natural regeneration.
Floodplain Restoration			
Type of intervention and target	The program provides for the restoration of 1 km of mechanical restoration and 1 km of biological restoration development of 300 ha of floodplains	The program provides for the restoration of degraded riverbanks identified 1 km of mechanical restoration and 1 km of biological restoration), the development of 300 ha of floodplains.	The program provides for the restoration of degraded banks of identified rivers (2 km of mechanical restoration and 2 km of biological restoration), the development of 400 ha of floodplains.
Water mobilization and irrigation in alluvial plains and reclaimed watersheds			
Type of intervention and target	The Program foresees the rehabilitation of 15 ha of small scale Integrated Community Agricultural Farms, with water from tributaries from Niger river.	The Program foresees the rehabilitation of 15 ha of small scale Integrated Community, with water from tributaries from Niger river Agricultural.	The Program foresees the rehabilitation of 20 ha of small scale Integrated Community Agricultural, with water from tributaries from Niger river Farms.
Improving the food and nutrition situation in priority landscapes			
Type of intervention	The program will support, at the level of each commune of intervention, the strengthening of education spaces on food and nutrition, the setting up of focus groups (culinary demonstration) and inter-farmer exchange visits (women farmers in the functional education spaces on nutrition). The program provides for collaboration protocols (three radios per district) with local radios for the broadcasting of programs on the use of income from the sale of agricultural products for the purchase of food with high nutritional value and promotion of self-consumption of the production.		

COMPONENT 3: REGIONAL FOOD MARKET INTEGRATION AND TRADE (US$15.9 MILLION IDA)

29. Component 3 will consolidate the achievements of the ECOWAS Regional Food Security Reserve. In addition, this component provides support to develop selected value chains within Mali, including financing for private companies interested in investing in any part of these value chains. This component is divided into two subcomponents.

30. ***Subcomponent 3.1: Facilitate Trade Across Key Corridors and Consolidate Food Reserve System (US$3.6 million).*** Under the leadership and coordination of ECOWAS, Subcomponent 3.1 aims to strengthen the resilience of food systems and accelerate regional trade in a healthy business environment. At the country level, this component will support the following activities:

(a) **Harmonize national agricultural trade policies with regional instruments.** National policies will be harmonized with regional instruments on input trade, food safety, norms, standards, and non-tariff barriers for agricultural products. This subcomponent will finance a consultative process for the development, adoption, and dissemination of harmonized instruments.

(b) **Build national capacity for agricultural trade negotiations**. At the national level, technical staff and private partners involved in the negotiation of agricultural trade and tariff regimes will be

trained. FSRP will support the participation of the national team in training sessions organized by ECOWAS, national facilitations and consultations, and dissemination of training materials.

(c) **Develop an ECOWAS Agricultural Trade and Market Scorecard.** ECOWAS will establish an accountability (scorecard) mechanism to assess implementation of policy commitments on agricultural trade and market access in the ETLS and ECOWAP. At the national level, FSRP will finance the participation of national experts in training sessions at the regional level, training of trainers at the national level, preparation and validation of the country report on the implementation of agricultural trade policies, and dissemination of the country report.

(d) **Improve Regional Food Reserve System performance.** This subcomponent will support national adoption of regional food reserve instruments developed by ECOWAS. These investments will include physical support for the construction of infrastructure for stockpiling and purchasing grain at the community (local) level as well as the adoption of financial instruments to support the food reserve system, including detailed operational procedures on risk financing of regional reserves.

31. Subcomponent 3.2: Support the Development of Strategic and Regional Value Chains (US$12.3 million). This subcomponent aims to accelerate agricultural growth, reduce poverty, and ensure food and nutritional security by developing competitive value chains of strategic importance for food security. Activities will focus on expanding the participation of a range of actors in the three target value chains (rice, maize, and onions), giving particular attention to developing producers' capacity to meet the institutional, infrastructural, technical, and technological demands of competitive value chains.

32. The program will use a public-private partnership (PPP) approach in which the Government provides incentives and an appropriate legal framework, farmers supply products, and private companies market agricultural inputs, provide advice to farmers, and market farmers' products. These PPPs will generally seek to combine market potential, technical skills, and management capacity to strengthen the supply-side capacity of the sector (from production to agro-processing and marketing).

33. Under this subcomponent, FSRP will support the development of the target value chains, focusing on the upstream and downstream segments to increase the supply and quality of agricultural products, add value for sustainable food and nutrition security, and have a tangible, positive impact on regional food security and trade. Value chains will be supported through activities to:

(a) **Strengthen value chain organization and financing.** This activity will provide support to develop inter-professional organizations and multistakeholder platforms that will catalyze access to the best knowledge and ensure that value chains are structured for efficiency, effectiveness, and large-scale, sustainable impacts. The project's activities will focus on updating and implementing national action plans to promote value chains that have comparative advantages in producing for the subregion by restructuring value chains, continuing to set up innovation platforms and PAs for integrated development, and building the capacity of producers to use cultivation techniques that guarantee production suitable for storage. This activity will also remove obstacles to agricultural value chain development by hard and soft investments to facilitate bulking, processing, packaging, and national and cross-border marketing.

(b) **Support agricultural competitiveness and market access infrastructure.** One of the purposes of PPPs in value-chain competitiveness is to direct public and private investments to FSRP intervention areas to increase productivity in existing production, processing, and marketing infrastructure clusters and to create new supporting infrastructure. FSRP will support capacity building for producers and processors of local products in each of the targeted value chains to obtain certifications of various kinds for their products. It will also promote greater national ownership and enforcement of the ECOWAS Agricultural Trade Accountability Mechanism; implement citizen monitoring (health, prices, meteorology);develop a national strategy for the certification of agricultural products; support

compliance with food safety and quality agreements and standards (including investments in improved logistics to preserve the quality and safety of agricultural products); pursue the labeling of specific products to boost trade in the selected value chains; improve value-added through essential infrastructure investments in post-harvest storage and processing (storage and cold chain facilities), especially in cross-border corridors; build capacity of the ministries, departments, and agencies involved in the trade of agricultural products at the national and intra-regional levels; streamline trade formalities and documentation, and support informal cross-border trade, by building capacity of actors at all levels.

(c) **Strengthen multistakeholder coordination and promote a private sector enabling environment.** The program will support the development of these platforms to ensure coordination, harmonization of interventions, and the exchange of information in the target value chains. The platforms will include producer associations, the private sector (processing plants, transport, financing institutes), public agencies, and advocacy associations. The program will also provide support for public-private sector dialogue on promoting a supportive business environment; for consultation meetings to follow up on recommendations emerging from public-private dialogue; and for analytical studies to strengthen advocacy and support for regulatory and institutional reforms to catalyze private sector participation in the selected value chains and the agricultural sector in general. The Government will play the leading role in developing the legal framework for PPPs. It will also lead the PPP development cycle: identifying a common interest around a technical or technological problem to be solved, or a commercial opportunity to be seized, and designing and negotiating the legal provisions of the partnership contract, particularly in relation to how the partnership will operate in terms of financing needs and sources, the contributions of each partner, and the distribution of benefits and profits.

34. Private sector participation (PPPs) in value chain development will be encouraged through a co-financing approach. Commodity chain-specific PPPs are intended to enhance the value and competitive position of an agricultural commodity chain in national and regional markets. They will be financed in close collaboration with financial institutions through a variety of instruments, including the equity of the commodity chain umbrella organizations, private investment, loans from commercial or public banks, and government grants that may come from development partner and donor funding. Specific co-financing arrangements will be detailed in the Project Implementation Manual (PIM). This activity will particularly support funding for youth and women agri-promoters who want to start or sustain an investment in the selected value chains (such as subprojects to invest in food preserving and processing equipment); funding will be complemented by mentoring and market linkage services.

COMPONENT 4: CERC (US$0.0 MILLION IDA)

COMPONENT 5: PROJECT MANAGEMENT (US$3.6 MILLION IDA)

35. Component 5 supports all aspects of program management and M&E. It includes funding for activities prior to startup, equipment and materials, support to the *l'Agence d'Aménagement des Terres et de fourniture de l'eau d'irrigation (ATI)*, M&E, compliance with fiduciary, procurement, environmental, and social requirements, knowledge management, and communication. Operating costs include salaries, bonuses, and allowances for staff of the national PIU and the RMUs.

36. Component 5 supports all aspects of program management and M&E. It includes funding for pre-start-up activities, equipment and materials, support to the Land Development and Irrigation Water Supply Agency (LWSA), M&E, compliance with fiduciary, environmental and social requirements, knowledge management and communication. Operating costs include salaries, bonuses, and allowances for the national and regional PIU staff.

D. Beneficiaries and Intervention Areas

37. The beneficiaries of interventions provided through FSRP–Mali are:

(a) Vulnerable households (farmers, agro-pastoralists, pastoralists)
(b) Technical services (research, extension, and others)
(c) Women and youth organizations
(d) Private sector (production, storage, processing, and marketing enterprises)
(e) NGOs.

31. Intervention areas. The program will primarily target food-insecure regions with high production potential for selected agricultural sectors, with an emphasis on trade facilitation. The intervention areas are presented in Annex 16

E. Project Costs

38. Table A2.3 summarizes the costs and financing of the project in Mali.

Table A2.3: Cost and financing of FSRP, Mali (IDA funds) (US$ million)

Component	Cost
C1 Digital Advisory Services for Agriculture and Food Crisis Prevention and Management	**10.3**
C1.1 Upgrading national food crisis prevention and monitoring systems	3.4
C1.2 Strengthening the development and delivery of digital advisory services to farmers	6.9
C2 Sustainability and adaptive capacity of the food system's productive base	**30.3**
C2.1 Consolidate the regional agricultural innovation system	5.8
C2.2 Strengthen national food security through ILM	24.5
C3 Regional Food Market Integration and Trade	**15.9**
C3.1 Facilitate trade along key corridors and consolidate food reserve system	3.6
C3.2 Support the development of strategic and regional value chains	12.3
C4 CERC	**0.0**
C5 Project Management	**3.6**
TOTAL	**60**

III. IMPLEMENTATION ARRANGEMENTS

A. Institutional and Implementation Arrangements

39. The Mali FSRP will be implemented through institutional arrangements with a range of stakeholders at the regional (West African), national (country), and local levels. The program will work with actors from the public, private, and academic sectors and civil society at these different levels.

40. The Ministry of Rural Development (MDR) will be the technical implementing agency for FSRP in Mali. MDR is responsible for implementing the development strategy for agriculture, livestock, and fisheries throughout Mali. It has a strong presence in the field, with staff based in all of the regions and *cercles* (second-tier administrative units) to support FSRP implementation.

41. FSRP operations in Mali will be overseen by a National Steering Committee. The committee's responsibilities will include (among other things) oversight and coordination of the program, with a view to ensuring that the program's activities (reflected in workplans and planning documents) and results are coherent and consistent with Mali's priority policy objectives related to poverty reduction, food security, decentralization, and other objectives defined in the various sectoral policy frameworks. The Steering Committee will be chaired by the Minister of Rural Development (or his representative) and will include: (a) members of the steering committee of the vehicle project (PDAZAM) comprising: (i) a representative of the Minister in charge of Finance; (ii) a representative of the Minister in charge of Solidarity; (iii) a representative of the Minister in charge of Territorial Administration; (iv) a representative of the Minister in charge of Environment; (v) a representative of the Minister in charge of Water; (vi) a representative of the Minister in

charge of Equipment; (vii) the President of the Permanent Assembly of the Chambers of Agriculture of Mali; (viii) a representative of the Commissariat for Food Security; and (ix) the Presidents of the Regional Councils; x) representatives of structures relevant to the FSRP, including a representative of the Minister in charge of Industry and Trade; a representative of the Minister in charge of Transport and Infrastructure; and the presidents of the district councils of the districts covered by FSRP.

42. In the interest of efficiency and effectiveness, the FSRP will be implemented by the PIU of PDAZAM Project, which also focuses on agricultural development, resilience, and food security in four regions currently. The program will support the addition of technical staff to this PIU, to facilitate the implementation of the FSRP, including an Agro-Hydrometeorology Specialist, an ILM Assistant, a Trade Facilitation Assistant, an M&E Expert, a Procurement Assistant, a Gender Specialist, an Accountant The PDAZAM experts to be pooled are: Finance Officer, Accountant, Procurement Specialist, three Sector Expert, Infrastructure Expert, Internal Auditor, Communication, Central and Regional Safeguards, M&E Assistant. The FSRP will be coordinated by the PDAZAM Technical Director. Within three (3) months from the Effective Date, the project will recruit the following additional PIU staff: (i) A Procurement Specialist; (ii) a Procurement Assistant; (iii) an M&E Officer; (iv) an Agro-Hydrometeorology Specialist; (v) an ILM Specialist; (vi) a Trade Facilitation Specialist; (vii) Gender Specialist; (viii) a GBV Specialist; and (ix) a Security Specialist, all with ToR and with qualifications and experience satisfactory to the World Bank.

B. Monitoring and Evaluation

43. The M&E system for FSRP–Mali will be linked to system used for PDAZAM, and the M&E manual for PDAZAM will be updated to reflect the national and regional dimensions of FSRP. The updated manual will provide details on the results framework (including data collection methodologies and instruments), institutional arrangements for M&E functions (identification of actors and definition of their respective roles and responsibilities), the GM, and the mechanisms for disseminating information. M&E results will inform a communication strategy to be developed and implemented by the PIU. A survey will be conducted in the first year of the program to collect baseline data and verify the targets presented in the results framework. In addition, an M&E mechanism will be put into place to monitor emergency response activities. Particular attention will be paid to monitoring the gender and social inclusion action plan.

44. Joint **supervision and monitoring missions, a mid-term review, a final review,** a completion report, as well as specific or thematic studies will be organized during FSRP implementation.

C. Environmental and Social Management

45. The Borrower will assume overall responsibility for assessing, managing, and monitoring environmental and social risks and impacts throughout the life cycle of the project to meet applicable national requirements and the standard (ESSs) of the World Bank ESF. The environmental and social assessment carried out during preparation has identified the standards that apply to FSRP, which require the Borrower to prepare the following documents: (i) an ESMF; (ii) an RPF in accordance with ESS 5; (iii) an LMP in accordance with ESS 2; and (iv) a SEP in accordance with ESS 10.

46. In addition, the Borrower and the World Bank have prepared an ESCP summarizing the measures and actions identified in those documents that must be implemented by FSRP to comply with the ESF (this document identifies the necessary physical measures and actions, their timing and completion dates, and the institutional partners responsible for completing those measures).

D. Environmental and Social Risks

47. **Environmental risks and impacts.** The FSRP will use the World Bank ESF, which provides a holistic tool for identifying and managing environmental and social risks and opportunities in project design and appraisal. Table A2.4 summarizes the main potential environmental risks and impacts associated with FSRP activities.

Table A2.4: Environmental risks and impacts of FSRP, Mali

Source of impact (program activities)	Impact
POSITIVE IMPACTS	
1.1 Strengthening the agricultural innovation system for resilient food systems	Improving resilience strategies
2.1. Strengthening the agricultural innovation system for resilient food systems	• Strengthening research infrastructure to international standards • Integration of environmental management in infrastructure management • Development of efficient and sustainable agricultural techniques for rice • Traceability of inputs and technologies used in the targeted area • Capacity building of actors for environmentally responsible agriculture
1.1. Improving regional food crisis prevention and monitoring systems *2.2. Strengthen food and nutrition security through sustainable agricultural practices in targeted areas* *3.2: Support the development of strategic regional value chains*	• Integrated pest management • Improvement of soil conservation and fertility • Improvement of the water retention capacity of soils • Increased productivity and resilience of agricultural systems to climate change • Reducing community vulnerability to food and nutrition insecurity • Accessibility of improved and adapted seeds • Valuation of resilient and accessible technologies • Maintaining the quality of stored foodstuffs and product traceability • Valuation of traditional local knowledge
RISK/NEGATIVE IMPACTS	
2.1: Strengthen the agricultural innovation system for resilient food systems *3.2: Support the development of strategic regional value chains*	• Risk of social conflicts due to lack of use of local labor on construction sites • Risk of SEA and SH at and around work sites • Risks of soil degradation by erosion, destruction of habitats during land clearing • Proliferation of solid and liquid waste • Workplace accidents • Lack of diversity of speculations • The risk of socio-professional conflicts
1.1. Improving regional food crisis prevention and monitoring systems	• Exposure of users to harmful radiation due to the prolonged use of certain electronic equipment
2.2: Strengthen food and nutrition security through sustainable agricultural practices in targeted areas	• Social conflicts due to inadequate community involvement strategy • Increase in intimate partner violence due to jealousy if women are targeted in these activities without adequate involvement/sensitization of men in their homes • Degradation of water resources, land, and biodiversity • Pollution and poisoning by pesticides and other products • Development of water-borne diseases • Land conflicts • Pollution of the natural environment by discharge from processing units

48. **Environmental risk classification**. The environmental and social risks associated with the FSRP are considered ***Substantial***, given Mali's overall vulnerability to climate change and the negative impact on natural resources.

49. **Risk and impact management measures**. The following measures will be considered to minimize these potential risks and adverse impacts:

(a) **Institutional strengthening**
- Recruitment of two Junior Specialists (SSE and SDS) at the Sikasso Regional Management Unit of the Drylands Development Project (P164052);
- Recruitment of a GBV Specialist to ensure implementation of risk mitigation measures related to GBV/SEA/SH and to strengthen the capacity of the junior SDSs and companies recruited to do so;
- Establishment and operationalization of a regional coordination unit in Sikasso.

(b) **Completion of environmental assessments and implementation of ESMPs:** (i) Carrying out summary environmental and social assessments (screening) of subprojects, including an analysis of the risks of GBV/SEA/SH; (ii) Carrying out the ESIA / NSIA of subprojects; (iii) Implementation of safeguard instruments and ESMPs (ESMPs must include a GBV/SEA/SH Risk Mitigation and Response Action Plan) with active involvement of all project stakeholders; (iv) Incorporation of technical environmental clauses in the specifications of companies; and (v) Socio-environmental appropriateness of technical infrastructure.

(c) **Capacity building of actors**: (i) Inform, educate, and communicate with stakeholders involved in implementing FSRP with regard to national and World Bank environmental and social procedures, including the prohibition of SEA/SH; and (ii) Training for the different categories of actors on the GM, including the appropriate channels for handling sensitive complaints such as GBV/SEA/SH and other topics as needed.

50. **Social risk**. The beneficial social impacts of FSRP include improved living conditions for producers, women, and youth; reduced costs of processing harvested products, jobs created for women and youth; and increased incomes for the population in the target areas. The potential social risks and negative impacts include risks of GBV/SEA/SH, health risks, risks of child labor, risks of exclusion for vulnerable groups (people with disabilities, women, young, the landless, etc.), risks related to social cohesion (or exacerbation of local tensions between livelihood groups), as well as risks related to insecurity in the country.

51. The level of GBV/SEA/SH risk for FSRP is considered ***Substantial***. Risk factors include context-specific risks such as high rates of child marriage and female circumcision, general social acceptability of GBV, conflict, high risk of human trafficking, and lack of legislation on domestic violence and SH. In addition, women farmers may be exposed to SEA or requests for sexual favors in exchange for access to project benefits. In response to these realities and aligned with the requirements outlined in the Good Practice Note on SEA/SH, NES requirements, and a survivor-centered approach, the program will additionally assess the specific risks/qualities of GBV/SEA/SH as part of the social assessment and reflect them in safeguard instruments, contractual obligations, and other key documents governing program implementation.

52. As part of the social assessment, the Borrower will map GBV services in the implementation areas and develop response protocols for the prompt, safe, and ethical referral of all survivors who may disclose incidents of GBV/SEA/SH to the program. In addition, the Borrower will design and implement a GBV/SEA/SH sensitive complaint management mechanism (CMM) for the safe and confidential documentation, response, and management of GBV/SEA/SH complaints and will include targeted and regular participation of women and other at-risk groups stakeholder engagement. Awareness-raising activities on GBV/SEA/SH risks and mitigation strategies will be included in the PEP and will target communities and program workers, while contractual obligations in terms of GBV/SEA/SH mitigation will be implemented through the integration of specific provisions on codes of conduct and worker training. Project work sites will also be adapted with separate sanitary facilities that lock from the inside and sufficient lighting to ensure the safety of women working/visiting the site.

53. During FSRP preparation, the Borrower developed a GBV/ASR/HS action plan with a budget in the ESMF, which describes the program's prevention strategies, response protocol, and accountability mechanisms. The Borrower's supervision capacity will be strengthened throughout implementation by integrating a GBV Specialist within the implementing agency and supervisory consultant teams. Monitoring of the effective implementation of the GBV/SEA/SH Action Plan will be further by the engagement of a third-party monitor with GBV expertise and duties; this entity will also report warning signs that may not otherwise have been identified.

IV. RISKS

54. The overall risk rating of the program is ***Substantial***.

ANNEX 3: FOOD SYSTEM RESILIENCE PROGRAM FOR THE REPUBLIC OF NIGER

I. STRATEGIC CONTEXT

A. Country Context

1. Niger is a landlocked Saharan-Sahelian country, with a surface area of 1,267,000 km², three-quarters of which is desert, and an estimated population of 24.4 million (INS 2020). Its economy is poorly diversified and is essentially based on agriculture and livestock production and, to a lesser extent, on mining industries. Poverty is quite widespread. The level of extreme poverty reached 41.4 percent in 2019, affecting more than 9.5 million people. The 2019 Human Development Report ranks Niger among the least developed countries, with a Human Development Index (HDI) of 0.377 (UNDP 2019). The provision of basic social services (education, health, and food systems) is weak, and population growth is 3.9 percent (RGPH 2012), which is the highest in the world.

2. The macroeconomic situation worsened in tandem with COVID-19, but a rebound is expected. Niger experienced real GDP growth of 6 percent on average over 2016–2019. Due to COVID-19, GDP growth is estimated to drop to 0.5 percent in 2020, followed by a rebound to 11.8 percent in 2022. The impact of COVID-19 on the economy has been lower in Niger than in other countries in the region because of the continuing pace of investment in infrastructure, extractive industries, and services, as well as the implementation of structural reforms (in particular those favoring private sector development) and efforts to strengthen the resilience of agriculture.

3. Medium term factors that are likely to weigh on Niger's economic performance include: (i) heavy demographic pressure and urbanization; (ii) vulnerability to climatic shocks; (iii) the possible deterioration of security conditions, aggravated by the rise of violent extremism and strong pressure on natural resources; (iv) lower oil prices and fluctuating international prices of non-oil commodities (negatively impacting public finances and the balance of payments); and (v) implications of COVID-19 (among others an increase in public spending on health care and social assistance to vulnerable households and a reduction in trade and foreign direct investment).

4. Even with recurrent food crises, as recently as 2018, a significant share of the population had become more food secure. In 2010, 30.4 percent of households were "vulnerable" to food insecurity, compared to 47 percent in 2013. Yet over 2013–2018, food security improved. By 2018, the share of households "vulnerable" to food insecurity was 29.1 percent.

B. Sectoral and Institutional Context

5. Niger's agricultural sector is highly dependent on climatic conditions. The arid climate is accentuated by high temperatures and strong spatial-temporal and interannual variability in rainfall, which has displaced isohyets toward the South. The accelerated disappearance of vegetative cover has led to considerable loss of water due to runoff, evapotranspiration, and percolation.

6. Agriculture (in its broadest sense) accounts for more than 40 percent of GDP and generates employment for nearly 80 percent of the labor force, but the sector remains vulnerable to climate change and the degradation of natural resources. In fact, the major contributors to falling levels of agro-silvo-pastoral production and the rising impoverishment of the population are climate change, inefficient agricultural practices, overgrazing, overexploitation of land, and deforestation. These conditions negatively reinforce one another, imposing significant economic and social costs on Niger. Production deficits have mounted ever since the plague of recurrent droughts and floods, which started in the 1970s, worsened dramatically in the mid-1980s. From 1984 to 2020, 10 major droughts[4] and 11 major floods occurred.[5] The droughts provoked a massive rural exodus that swelled urban populations. Exceptional rainfall in 2010, 2012, 2016, and 2020 revealed the high vulnerability of urban areas to flooding, as degraded watersheds and eroded soils in the upstream areas of rivers and water bodies cannot absorb water and have seriously increased runoff.

C. Relevance to Higher Level Objectives

3. FSRP is in line with key national policies such as the Economic and Social Development Plan (PDES 2017–2021) adopted in 2017, which is the instrument for operationalizing the Niger Renaissance program. The PDES is the single frame of reference for interventions under the government's medium-term development agenda. The Food and Nutritional Security and Sustainable Agricultural Development Strategy (SAN/DAD), known as the "Nigeriens Feed Nigeriens" Initiative (i3N), is the third axis of the PDES. Its overall objective is to help "protect the people of Niger from hunger and guarantee them the conditions for full participation in national production and the improvement of their incomes." All of these policies and strategies are in line with regional policies.

8. FSRP is aligned with the World Bank CPF for Niger (2018–2022). The CPF includes three intervention areas that are based on the strategic priorities of the Government of Niger reflected in the PDES, Vision 2035, and the Sustainable Development and Inclusive Growth Strategy (SCDDI). These areas are fully aligned with the SAN/DAD and the i3N, contribute to the twin WBG objectives of reducing extreme poverty and promoting shared prosperity, and emphasize activities for which the World Bank has a comparative advantage.

II. PROJECT DESCRIPTION

A. Project Development Objective

9. The Project Development Objective (PDO) is to increase preparedness against food insecurity and improve the resilience of food systems in in Niger.

B. Project Results Indicators

10. Progress towards the achievement of the PDO will be measured by the following indicators, in line with the indicators of the FSRP MPA.

Table A3.1 Results indicators for Niger

Indicator	Baseline	End target
PDO-level (outcome) indicators		
Program beneficiaries (number and percentage of female beneficiaries)	0	600,000 (40%)
Reduction of food insecure people in program targeted areas (Percentage)	0	25
Food system actors accessing hydro and agrometeorological advisory services (number and percentage of female beneficiaries)	0	150,000 (40%)
Producers adopting supported climate-smart agricultural technologies and services (number and percentage of female beneficiaries)	0	160,000 (40%)
Land area under sustainable landscape management practices in ha	0	32,800
Share of intra-regionally traded production in selected value chains (cowpeas, onions/scallions) (percentage)	TBD	30%
Intermediate Results Indicators		
C1: Digital advisory services for regional agriculture and food crisis prevention & Management		
Satisfaction of farmers who have access to usable weather, climate and ag-advisory services (Percentage)	0	80
Improved access to local climate information services with digital information platforms (Yes/No)	No	Yes
Agreements involving co-production of agro-hydro-meterological services between the public and private sectors (number)	0	2
C2: Sustainability and adaptive capacity of the food system's productive base		
Technologies made available to farmers by the consortium of NCoS, CGIAR and other international research institutes (Number)	0	8
Percentage of nutrition-sensitive technologies (Percentage)	0	30
Sub-projects selected from the ILM plans with climate-resilient measures implemented (percentage)	0	70

Spatial information system established and operational for designing and planning climate-resilient land management practices (Yes/No)	No	Yes
C3: Regional food market integration and trade		
Private-sector actors involved in regional agriculture trade that are supported by the Program (Number)	0	50
Women farmers reached with assets or services to improve commercialization in selected value chains (Number)	0	7,000
C5: Project management		
Beneficiaries satisfied with the Program's interventions. (percentage)	0	80
Grievances registered and addresseded by the Program (percentage)	0	90

C. Project Components

11. In line with the overall MPA program, Niger's interventions include activities designed to respond immediately to the food insecurity crisis as well as medium- and longer-term investments to build the resilience of the food system and its production base. All activities to be implemented are described in the following.

COMPONENT 1: DIGITAL ADVISORY SERVICES FOR AGRICULTURE AND FOOD CRISIS PREVENTION AND MANAGEMENT (US$10.4 MILLION IDA)

12. Implementation of activities under Component 1 will contribute to and strengthen various regional systems and institutions, such as the Niger Basin Authority (NBA), African Centre of Meteorological Applications for Development, CILSS, and AGRHYMET, to improve national and regional decisions to support the resilience of agro-pastoral systems.

13. ***Subcomponent 1.1: Upgrading Food Crisis Prevention and Monitoring Systems (US$4.7 million).*** Subcomponent 1.1 will support activities to:

(a) **Improve regional and national capacity to deliver reliable information services on vulnerability, nutrition, and food security**. This activity will strengthen national capacity to support the overarching regional system for monitoring and providing food security information services, notably through the *Cadre Harmonisé*. More specifically, it will support: (i) updating the analytical framework; (ii) organizing data collection and sharing within the *Cadre Harmonisé*; and (iii) strengthening the regional agricultural information system (in particular the ECOAGRIS platform), by developing information systems to provide multidimensional data on vulnerability. In pastoral areas, this subcomponent will support an inventory of pastoral resources and the development of an early warning mechanism based on community-level Vulnerability Monitoring Observatories (VMOs) and Community Early Warning and Emergency Response Systems (SCAP/RU). Support to agro-pastoralists will also be improved by shifting from the current fodder balance sheet into a food balance sheet, updating the database of producers at the Réseau National des Chambres d'Agriculture (RECA), and strengthening remote advisory and information services provided by the Chambers of Agriculture and RECA (including the call center and community radios, access to new digital advisory themes, and development of digital solutions for agro-pastoralists).

(b) **Reorganize and improve regional and national pest and disease monitoring and control systems.** This activity will enable the reorganization of current mechanisms for monitoring and controlling pests and diseases, including, if necessary, the development of new methods. Strengths and weaknesses of existing mechanisms will be assessed as well as the organization of the current systems for monitoring pastoral resources and sero-surveillance of zoonotic diseases. The legislative framework for pest and disease control will also be explored, with a view to improving regional harmonization.

(c) **Strengthen regional collaboration for food crisis prevention.** This activity will include strengthening the network of experts in the RECA call center to provide additional information related to livestock

issues, strengthening system for analyzing qualitative data on pastoral systems to identify weak links, and operationalizing a new weather and climate information system.

14. Subcomponent 1.2: Strengthening Digital Hydromet and Agro-Advisory Services for Farmers (US$5.7 million). This subcomponent aims to increase access to and use of location-specific information relevant to food security by policy makers, farmers, and herders/pastoralists through national extension systems. It includes activities to:

(a) **Improve the production of climate, hydromet, agromet, and impact-based information for use by decision-makers, farmers, pastoralists, and other actors in the food system.** This activity will strengthen the capacity of public and private agro-hydrometeorological institutions and service providers and national stakeholders (government departments, producer organizations) to improve the provision of information through the use of new tools. It will develop a national directory of agro-hydrometeorological and phytosanitary service providers, and it will strengthen national capacity to observe hydrometeorological phenomena (infrastructure; data processing capabilities, the digitization of agro-hydrometeorological and phytosanitary advisory information; development of information dissemination channels) to complement regional and global meteorological data and infrastructure.

(b) **Support the timely delivery and use of essential agro-hydrometeorological information to key users.** Impact-based warning and advisory systems will be developed to meet the requirements of agriculture and food security through institutional support to service providers. The capacity of the agricultural advisory system will be improved based on a technical and institutional diagnosis. Capacity improvements will include the installation of equipment and training to monitor agricultural and livestock production campaigns, the development of service units to supply digital agro hydrometeorological information through user groups (Agency for the Promotion of Agricultural Advice (APCA), RECA), and the promotion of e-agriculture advisory strategies at the national level. This activity will also support the timely provision of agro-hydrometeorological information to farmers and pastoralists through multimodal channels, including digital technologies, through a formal partnership with the private sector, academic sector, and civil society, including support for a the RECA call center to involve startups.

(c) **Strengthen the financial and institutional sustainability of regional and national institutions providing climate, hydromet, and agromet information.** This activity will evaluate and revise national policies on collaboration between the public, private, and academic sectors, particularly with regard to meteorological data. The aim is to improve cooperation between these sectors and support the development of tailor-made forecasting and advisory services, which should also promote better regional collaboration between these various actors; support decision-making through improved hydrometeorological, early warning, and advisory services; and facilitate harmonized approaches at the regional level. More specifically, this activity will establish an e-learning platform for national climate information providers (public and private), promote climate-smart villages, develop climate information that can better inform the design of risk financing instruments for agriculture, and develop cross-border measures for farmers and pastoralists.

15. Component costs. Activities financed under this component will include support for the rehabilitation of infrastructure, acquisition of equipment and materials, consultant services and training activities, as well as stakeholder consultation meetings.

COMPONENT 2: SUSTAINABILITY AND ADAPTIVE CAPACITY OF THE FOOD SYSTEM'S PRODUCTIVE BASE (US$29.7 MILLION IDA)

16. *Subcomponent 2.1: Consolidate Regional Agricultural Innovation System (US$5.8 million IDA).* It will support the following activities, building on the successes of the previously implemented Program WAAPP, to:

(a) **Strengthen National and Regional Research Centers.** This activity will focus on transformation of the Regional Specialized Center for Livestock (CRS-EL) into an RCoE. It provides support to update and implement the action plan for transformation; train staff of the implementing agencies and partner institutions of CRS-EL; provide key equipment for CRS-EL and its laboratories; support CNRA to implement the action plan for the agricultural research strategy developed and adopted by the Government of Niger; assess skill gaps and implement the CORAF mobility charter to fill them; and strengthen cooperation between the CRS-EL and regional and international agricultural and zootechnical research centers. This activity will also support training for young scientists and researchers.

(b) **Deepening and expanding regional and national R&D networks.** This activity will support the development of proposals for regional collaborative research on technologies and innovations with other western African countries, CGIAR centers, and other international research institutions working on livestock; and developing and implementing a research program responding to this regional demand.

(c) **Modernize national extension services.** This activity will support and explore efforts to modernize national extension services for livestock. Options could include: training on innovations through CNS, CGIAR centers, or other international research institutions; supporting and developing mechanisms for staff from CRS-NL and the national research system to participate in the activities of other NCoSs; support for evaluating new approaches (such as IAR4D to build innovation platforms and expand research capacity).

(d) **Promote technology access and exchange.** FSRP will promote modern technology platforms, including, innovative mechanization services, upgraded national seed systems, soil fertility management capacity (soil map preparation, soil testing, and soil fertility monitoring). The purpose of this activity is to strengthen access to technologies and innovations by consolidating innovation platforms; developing a unified inventory of all technologies generated by agricultural research; conducting workshops to identify technologies and innovations with regional potential.; This activity will also include operational support to improve the supply and dissemination of technologies for the priority value chains.

17. By their very definition, all activities to develop a Regional Center of Excellence in Livestock (CRE/EI) will involve close coordination between the national and regional levels under the purview of CORAF. The center involves institutions (National Agriculture Research Institute -INRAN-, faculties of agronomy, Livestock Multiplication Center -CMB-, Livestock Central Laboratory -LABOCEL-) that are staffed to implement all the activities planned in this subcomponent.

18. Gender. Prior to the implementation of Subcomponent 2.1, a diagnosis of the specific needs of women and youth will be carried out. Gender focal points for the NCoS and RCoE will be designated and strengthened to organize exchanges and sharing of experiences in integrating gender considerations into their activities. These research centers will also focus a share of their work on issues of concern to women, fully supported through FSRP. Support will also be available for selected women and groups of female farmers and pastoralists to attend national field days for agriculture and livestock, as well as fairs and forums in the subregion. Half of the beneficiaries selected to participate in specific training events and research and study tours will be women.

19. *Subcomponent 2.2: Strengthen Regional Food Security through ILM* (US$23.9 million).

20. As noted, the criteria for selecting landscapes for FSRP interventions were: (i) food insecurity; (ii) agro-silvo-pastoral potential; (iii) fragility due to social conflicts; (iv) national and regional impact; and (v) complementarity with past/current projects and programs. The target landscapes selected for support under this subcomponent are located in Tillaberi (5 communes), Tahoua (6 communes), Diffa (7 communes), and Zinder (14 communes).

21. At the start of the Program, a workshop will be organized for the different landscape stakeholders in each commune or group of communes to agree on an action plan for implementing three groups of activities:

(a) **Establish participatory ILM.** This group of activities will raise awareness and mobilize action to initiate participatory landscape management. A maximum of ten landscapes will be characterized and delimited; an integrated development vision and ILMP will be developed in close collaboration with the landscape stakeholders through the landscape development committees (to be newly established or through strengthening of existing committees), and supported by capacity building. This work will benefit from lessons learned from sustainable land management programs and capitalize on initiatives such as the "*Maison du Paysan,*" an i3N initiative to decentralize rural service platforms in each commune of Niger. NGOs will be recruited by the program to carry out these activities.

(b) **Enhance the resilience of eco- and food systems in priority landscapes.** This group of activities includes investments required urgently at the landscape level to restore the physical, productive, and cultural functions of priority landscapes and, in turn, restore the functions and resilience of their ecosystems, which are fundamental for food security. It will also finance other actions identified in the ILMP for each landscape, including diagnostic studies. It is important to emphasize at the outset that these investments are not directly/entirely dependent on the results of the planning activities, although they are obviously linked. This means that the priority investments identified during preparation will not be compromised by possible delays in the implementation of the integrated landscape vision and action plan. The two groups of activities will be carried out in parallel, with progress in each group feeding into the other. The investments identified include, among others, land and soil restoration, floodplain restoration, irrigation in floodplains and terraces, and climate-smart technology adapted to the local context. These activities will benefit from the research orientations and innovations proposed under Subcomponent 2.1.

(c) **Secure the resilience of eco- and food systems beyond priority landscapes.** To promote better access to markets, at the country level FSRP will support the development of formal productive alliances (PAs). Working with groups of small producers in the targeted landscapes (for instance, producers of non-timber forest products), the program will help them to develop business plans and secure contracts with national and international buyers. Based on the specific contractual arrangements and business plans of each PA, support will be provided for capacity building and/or equipment (including refrigeration systems). This activity is highly complementary with activities under Subcomponent 3.2, as it focuses on small local producers and helps them connect to markets that they cannot access on their own.

22. **Implementation modalities for Subcomponent 2.2.** Consultants, with strong involvement of the beneficiary populations, will develop ILMPs for the four targeted landscapes. Preparatory studies for the ILMPs will identify the types of works, thresholds, and other infrastructure and technology deemed essential to use natural resources more sustainably. The studies and ILMP development will be carried out in the first year of the program so that the other activities can start the following year. Other activities under this Subcomponent 2.2 are physical (such as land restoration, small-scale irrigation, seed production, agricultural input support, FFS, research activities), but they also require buy-in from the entire beneficiary population. Examples of activities for ILM and their implementation include:

(a) **Land restoration.** This is labor-intensive activity will mobilize the participation of women and youth. Work will be performed by the beneficiary population under the supervision of technical experts.

(b) **Mulching.** Crop residues are buried in the soil to improve fertility. This work will be performed by the beneficiaries under the supervision of technical experts.

(c) **Barriers for diverting or rainwater spreading gully runoff.** The construction of small barriers or thresholds to divert runoff from nascent gullies is highly labor-intensive (*haute intensité de main-d'œuvre*, HIMO) and requires skilled labor. Other barriers that work to spread runoff will be carried out in the valleys after a feasibility study.

(d) **Shoreline protection.** The program will support the protection of 11 km of shoreline. The implementation studies for this activity will be conducted by a commercial firm, and a commercial firm will perform the work.

(e) **Small-scale irrigation schemes rehabilitation.** These installations will be made on community and private land. Feasibility studies will be prepared, and the work will be carried out by a commercial firm under the supervision of the technical services.

(f) **Community seed multiplication.** Seed multiplication will be carried out in state-owned rural promotion and technical improvement centers (CPR, CPT). These centers will be supported by the Directorate General of Agriculture (DGA) for technical supervision, the provision of basic seed, and community management.

(g) **Promotion of individual and/or collective private forestry.** Arboretums providing ecosystem services will be developed by delimiting and fencing the site and planting the trees. An agreement will be signed with the Directorate General of Water and Forest (DGEF) to ensure implementation and monitoring of this activity. A village management committee will also be set up. This work will be funded through subproject grants awarded to village committees or private individuals to develop the arboretums.

Table A3.2: Interventions in priority landscapes

Tillaberi	Tahoua	Diffa	Zinder
Land and Water Restauration			
Development of 1 GIP, 1 850 ha, 12 weirs of correction	Development of 1 GIP, 2 950 ha, 28 weirs of correction	Development of 1 GIP	Development of 1 GIP
Floodplain Restoration			
FSRP will develop 1 water reservoir from rainwater, 2 ponds (rainwater), 2.4 km of treated banks, 3 wetland development plans	FSRP will develop 2 rainwater ponds and treat 2 km of banks	FSRP will develop 2 rainwater ponds	FSRP will develop 2 rainwater ponds
Water mobilization			
Rehabilitation of 50 ha of small irrigated perimeters, 3 works for the development of lowlands, 25 ha for the poisoning of ponds, 5 collection basins for runoff water, 20 km of tracks	Rehabilitation of 50 ha of small irrigated perimeters, 4 works for the development of lowlands, 25 ha for the poisoning of ponds, 5 collection basins for runoff water	Improvement of existing 150 ha of small irrigated areas	Improvement of 50 ha of small irrigated perimeters, 3 works for the development of lowlands, 25 ha for the poisoning of ponds, 5 collection basins for runoff water, 20 km of tracks
Provision of climate-smart technical and technological packages adapted to the local context			
FSRP will support 100 tons of input support, 300 ha of recession land development, 325 ha of community seed production, 2 FFS, 25 listening clubs, 375 ha of pastureland development and security	FSRP will support 100 tons of input support, 300 ha of recession land development, 325 ha of community seed production, 3 FFS, 25 listening clubs, 375 ha of pastureland development and security	FSRP will support 100 tons of input support, 300 ha of recession land development, 325 ha of community seed production, 2 FFS, 25 listening clubs, 375 ha of pastureland development and security	FSRP will support 100 tons of input support, 300 ha of recession land development, 325 ha of community seed production, 2 FFS, 25 listening clubs, 375 ha of pastureland development and security

23. Component costs. Activities financed under this component will include support for the rehabilitation of infrastructure, acquisition of equipment and materials, consultant services and training activities, as well as stakeholder consultation meetings. For Subcomponent 2.2 in particular, FSRP will finance the rehabilitation of infrastructure (for example, for water control and land rehabilitation/

restoration); the acquisition of equipment, materials, and agricultural inputs (small tillers and tractors, for example), consultancy services (for the preparation of ILMPs), training activities, and grants (for example, for subprojects to develop PAs). The PIM will describe the financing mechanisms, eligible investments, eligible program sponsors, and evaluation and performance criteria.

COMPONENT 3: REGIONAL FOOD MARKET INTEGRATION AND TRADE (US$16.0 MILLION IDA)

24. ***Subcomponent 3.1: Facilitate Trade Across Key Corridor and Consolidate Food Reserve System (US$3.8 million IDA).*** Under the leadership and coordination of ECOWAS, this Subcomponent 3.1 will strengthen the resilience of food systems and accelerate regional trade in a healthy business environment. At the country level, this subcomponent will support activities related to:

(a) **Harmonize national agricultural trade policies with regional instruments, focusing on food safety.** A risk assessment committee will be set up to provide regular alert data (RASF F, INFOSAN, SPS, and others) on diseases that threaten to restrict cross-border trade in agricultural products. The phytosanitary control system will be strengthened by training phytosanitary inspectors and rehabilitating and equipping of cross-border control posts.

(b) **Build capacity for agricultural trade negotiations**. At the national level, technical staff (Customs Services, DGPV, Environmental Services, and others) and private partners (CCIN, Agricultural Dairies, and others) involved in negotiating agricultural trade and tariff regimes will be trained. FSRP will support the participation of the Niger team in training sessions organized by ECOWAS, national facilitations and consultations, and the dissemination of training materials on regional trade.

(c) **Develop an ECOWAS Agricultural Trade and Market Scorecard.** ECOWAS will establish an accountability (scorecard) mechanism to assess implementation of policy commitments on agricultural trade and market access in the ETLS and ECOWAP. At the national level, FSRP will finance the participation of national experts in training sessions at the regional level, training of trainers at the national level, preparation and validation of the country report on the implementation of agricultural trade policies, and dissemination of the country report.

(d) **Improve Regional Food Reserve System performance.** This subcomponent will support national adoption of regional food reserve instruments developed by ECOWAS. It will also support investments in infrastructure for stockpiling food and the adoption of financial instruments to support the food reserve system, including detailed operational procedures for risk financing of regional reserves. The national security stock with a capacity of 6,500 tons (Tahoua, Maradi, Zinder) will be strengthened by acquiring and placing 400 tons of cereals in communal stores (Maisons du Paysan).

25. Subcomponent 3.2: Support the Development of Strategic and Regional Value Chains (US$12.2 million IDA). This subcomponent will support the development of strategic value chains (cowpeas and onions) in Niger that have high potential to improve regional food security. This subcomponent will support activities to:

(a) **Strengthen value chain organization and financing.** National action plans to develop priority value chains with a demonstrated comparative advantage in the subregion will be updated and implemented. Activities will focus on supporting and restructuring value chains through the operationalization of inter-professions; continued establishment of innovation platforms and PAs for integrated value chain development; strengthening producer capacities in farming techniques that guarantee production suitable for bulking and storage; improvements in packaging onions and cowpeas; and building the capacity of producers, processors, and traders in marketing methods, contracting, and developing business plans. TA and/or subsidies will be provided to develop enterprises/entrepreneurs in the priority value chains, including private seed multipliers; improvement, adoption, and dissemination of the experience of the Tsernaoua trading post; support

for innovative technologies to process local food products; and a review of the effects of removing the onion subsidy.

(b) **Support agricultural competitiveness and market access infrastructure.** This activity will provide financing and capacity building for producers and processors in the targeted value chains to obtain certifications for their products; support national implementation of the ECOWAS mechanism for responsible trade in agricultural products and citizen monitoring (health, prices, standards); improved adoption and application of agreements and standards; improved transport conditions; compliance with quality standards for the sectors; support for the labeling of specific products to boost trade in the selected value chains; support for essential investments to structure the links in targeted value chains, improvement of value-added within the selected value chains; capacity building of ministries, departments, and agencies involved in agricultural trade at the national and intra-regional level; support for informal cross-border trade and streamlining trade formalities and documentation procedures through capacity building of actors at all levels;

(c) **Strengthen multi-stakeholder coordination and promote enabling environment for the private sector.** This activity will finance dialogue and consultation meetings, analytical studies to strengthen advocacy, and follow-up on public-private dialogue recommendations. More specifically, it will organize networking and advocacy workshops for donors and apex organizations; support public-private sector dialogues to catalyze policy reforms and development of regulations to build a healthy business climate; and support advocacy for non-state actors.

26. **Gender.** Component 3 will have a particular focus on gender, especially the social and economic inclusion of women and youth. Training for women and youth will be tailored to their needs. They will be given priority in subproject activities supporting self-employment through income-generating activities, including the development of small and medium enterprises and acquisition of food processing and preserving equipment. Subprojects for women and youth will be financed by a budget line in accordance with the strategies in force (Investment Fund for Food and Nutrition Security (FISAN), SPIN). Activities under Component 3 will aim for women to be at least 35 percent of all beneficiaries.

27. **Component costs.** Activities financed under Component 3 include the rehabilitation of infrastructure, the acquisition of equipment and materials, consultancy services and training activities, as well as consultation and coordination meetings of the selected value chains. The private sector will be mobilized to participate in the investments on a cost-sharing basis.

COMPONENT 4: CERC (US$0.0 MILLION IDA)

COMPONENT 5: PROJECT MANAGEMENT (US$3.9 MILLION IDA)

28. **Component 5 aims at optimal implementation of the Program** in terms of coordination, technical and fiduciary management, monitoring and impact assessment, as well as compliance with environmental and social safeguards. Program management will be coordinated at the regional level by ECOWAS, which will delegate the technical work to the relevant mandated organizations (mainly CILSS/AGRHYMET and CORAF). At the national level, a steering committee will be created for the strategic orientation and validation of the AWPBs and annual activity reports and balance sheets. This committee will closely supervise the work of the National Program Implementation Unit (see Chapter III).

29. **Component costs.** Activities financed under this component will include the acquisition of equipment and materials, consultancy services, and training activities.

D. Beneficiaries and Project Intervention Area

30. **The project is estimated to benefit at least 86,810 households, or 607,670 people (including 242,000 women, about 35 percent), who represent the most vulnerable segments of the population**. They include producers, input suppliers (improved seed, fertilizer, pesticide), processors, and local traders and

exporters of the targeted agricultural and livestock products, among others. Access to productive assets (investments and production factors) will favor the most vulnerable segments of the population, such as women and youth. Households that are most exposed to chronic food insecurity, especially female-headed households, will benefit primarily from FSRP interventions related to irrigation, training, income-generating activities, and other forms of individual or collective support provided through their organizations. The program will also improve the structure of those organizations and their management capacity.

31. Project intervention areas. The selection of intervention areas was based on the following criteria: (i) food insecurity; (ii) the potential for increasing agricultural production and productivity, which is limited by pressure on scarce resources and under-utilization of quality inputs; (iii) fragility (areas in conflict environments); (iv) value chains with comparative advantages at both the national and regional level; and (v) maximizing complementarity and synergies with past and current projects and programs that promote a similar integrated approach. On the basis of these criteria, four regions were selected: Tillaberi, Tahoua, Diffa, and Zinder. Within these four regions, investments will be concentrated in 32 municipalities (see map in Annex 16.

32. To ensure efficient implementation, FSRP will develop synergies and complementarities with other programs and projects that are in progress or under preparation and operate in its intervention areas. These include the Niger Agricultural and Livestock Transformation Project (PIMELAN, P164509), the Climate-Smart Agriculture Support Project (PASEC, P153420), the Regional Sahel Pastoralism Support Project, Phase II (PRAPS II, P173197), the Sahel Irrigation Initiative Support Project (PARIIS, P154482),, the IFAD funded Programme for the Sahel in Response to the Challenges of COVID-19, Conflict and Climate Change (SD3C), the AfDB funded Climate Information Development and Forecasting Project (PDIPC), and the Niger Integrated Water Security Platform Project (PISEN, P174414).

E. Program Costs

33. The total cost of the program is US$60.0 million (IDA) for all national components, as shown in Table A3.3.

Table A3.3: Program costs by component, FSRP–Niger

Components	Amount (US$ million, IDA)
C1: Digital advisory services for agriculture and food crisis prevention and management	10.4
C1.1: Upgrade Food Crisis Prevention & and Monitoring Systems	4.7
C1.2: Strengthen Digital Hydromet and Agro- Advisory Services for Agriculture Producers	5.7
C2: Sustainability and adaptability of the food system's productive base	29.7
C2.1: Consolidate the regional agricultural innovation system	5.8
C2.2: Strengthen regional food security through ILM	23.9
C3: Regional market Integration and trade	16.0
C3.1: Facilitate trade across key corridors and consolidate food reserve system	3.8
C3.2: Support the development of strategic regional value chains	12.2
C4: CERC	0.0
C5: Project management	3.9
TOTAL	**60.0**

III. IMPLEMENTATION ARRANGEMENTS

A. Institutional and Implementation Arrangements

34. At the national level the program will be under the technical supervision of the Ministry of Agriculture and Livestock. FSRP operations in Niger will be overseen by a National Program Steering Committee. This committee will be chaired by the Secretary General of the Ministry of Agriculture (or representative) and include representatives of the Ministries in charge of Planning, Trade, Finance, Environment and Sustainable Development, Hydraulics, Disaster Management and Humanitarian Action, Transport, the Office of the Prime Minister, and other institutions directly involved in implementing the

program. The committee is responsible for providing recommendations and guidance to improve implementation and for approving the AWPB and activity reports submitted to ECOWAS.

35. FSRP will be implemented through the PIU of PARIIS. This arrangement enables FSRP to benefit from the following PARIIS expertise: 1 National Coordinator, 1 Administrative and Finance Officer, 1 Accountant, 1 Procurement Specialist, 1 M&E Specialist, 1 Internal Auditor, 2 Regional Assistant Accountants, 1 Environmental Safeguard Specialist, and 1 Social Safeguard Specialist. To accommodate the demands of FSRP, the PIU will be strengthened with the addition of three Specialists (Components 1, 2, and 3); three Assistant Accountants (Niamey, Zinder, Diffa), one procurement assistant, one environmental specialist, one social development specialist, one SEA/SH specialist, and one security specialist and one support staff at the PIU and regional levels. At the national level, the regional directorates will ensure the coordination of activities by their local branch offices. Regional coordinators will be supported by counterpart financing from the Government of Niger. In addition, the PIU will recruit for the first year one environmental consultant, one social development consultant, and for the whole program duration one GBV specialist and one security specialist.

36. Implementation and Monitoring Arrangements. The program will establish agreements for the execution and monitoring of activities with all public and private entities involved (trade, agricultural and zootechnical research, agricultural and zootechnical extension, irrigation, supply of inputs, and so on). A detailed PIM will be prepared for approval by the World Bank prior to effectiveness. To avoid delays that might compromise achievement of the PDO, it is recommended that the necessary autonomy be given to the PIU to conduct procurement.

B. Specific Implementation Provisions

37. Local level. The PIU will sign implementation contracts with local service providers (NGOs, consulting firms, engineering firms, enterprises, and others) to implement program activities at the community level.

38. Strategic partnerships. Strategic partners - CORAF, CILSS, and ECOWAS- will be engaged to provide TA on specific tasks.

39. Technical partners. The implementation of Components 1–3 will involve partnerships with stakeholders including government technical departments, agencies, and offices; research institutions (CNRA, CRS/EL, INRAN, and others); the private sector; providers of advisory and extension support services (National Agency for the Information Society (ANSI), RECA, APCA, and others); farmer organizations; CSOs; chambers of agriculture and agribusiness; and commercial banks (BAGRI, ANFICT, ASUSU, YARDA, and so on).

C. Monitoring and Evaluation

40. The M&E system will respond to the three dimensions of accountability, program management, and information sharing. It will be designed to report on FSRP implementation progress, results, and impacts, and it will generate information to support continued implementation and management of program activities, facilitate decision-making, and disseminate and promote FSRP results and impacts. The program will prepare a detailed M&E manual for this purpose. The program will use the KOBO TOOL BOX application for data collection and remote monitoring of the program.

41. Periodic joint missions (World Bank, ECOWAS, the Government of Niger) will supervise and support implementation, and a mid-term review mission will evaluate progress and recommend any necessary readjustments. A distinction will be made between internal monitoring and external evaluation. Internal monitoring will be carried out by the person in charge of M&E within the program team, according to the activity and results framework.

D. Environmental and Social Risks

42. Environmental risks and impacts. The FSRP uses the World Bank's ESF, a holistic tool for identifying and managing environmental and social risks and opportunities in program design and evaluation. The main potential environmental and social risks and impacts of the program (including investments, advisory services, and other support) are associated with agricultural and pastoral activities. Negative environmental impacts related to agro-pastoral activity potentially include deforestation; soil degradation through erosion; destruction of sensitive habitats; clearing of wooded areas; soil erosion and loss of fertility; pollution of groundwater, rivers, and water bodies through the use of large quantities of agrochemicals; destruction of non-target species by pesticides; and others. Potential negative social impacts include risks of land loss and expropriation; loss of income among small-scale producers through discriminatory, non-inclusive, or non-transparent practices and the absence of mitigating measures; health risks related to the use of pesticides (due above all to the absence of integrated pest management); water-borne diseases that can lead to loss or displacement of labor; poor management of pesticide packages; loss of grazing land with the development of agricultural perimeters; pollution of wells and water points by livestock; and the exclusion of vulnerable groups, especially women, in the allocation and management of agricultural land.

43. Measures to mitigate environmental and social risks and impacts are listed in Table A3.4.

Table A3.4: Environmental and social risk mitigation measures

Nature of the impact	Mitigation measure
Decreased soil fertility	Restoration of degraded soils Contribution of organic matter Better use and management of mineral fertilizer recommended by research Fight against deforestation Erosion control Use of nitrogen-fixing plants Use of technology and sustainable land management practices Awareness and training of producers
Pollution and poisoning	Adequately train all actors in the input use chain Disseminate environmental and social information on agricultural activities (pesticide management, etc.) Scrupulously adhere to recommendations on the management and use of fertilizers and pesticides Compliance with pesticide storage conditions Raising awareness of the risks of food poisoning Scrupulously adhere to the protective measures for mixing and using pesticides Monitoring of pesticide residues in crops
Reduction of biodiversity	Promotion of biological control Promotion of intensive organic farming Sound management of wetlands and natural habitats Reduce uncontrolled expansion of agriculture
Development of water-borne diseases	Improve water quality Avoid the use of undeveloped water sources Improve accessibility and security of water supplies Reduce the need for contact with infected water Reduce feco-urinary pollution of surface waters Control mollusks and cyclops
Construction impacts	Develop and implement a site ESMP according to the nature and scope of the work Prefer existing quarries and restore them after the work is completed Awareness and protection of personnel Ecological management of construction waste

IV. RISKS

44. The overall residual risk of FSRP is rated **Substantial** based on the following operational risks: (i) sector strategies and policies; (ii) technical design of the program; (iii) environmental and social aspects; (iv) institutional capacity for implementation and sustainability; and (v) stakeholders.

ANNEX 4: FOOD SYSTEM RESILIENCE PROGRAM FOR TOGO

I. STRATEGIC CONTEXT

A. Country Background

1. Located on the Gulf of Guinea in West Africa, Togo is a low-income country with a high poverty rate. With an area of 56,600 km2, Togo has a population of 7.5 million, which is predominantly female (51.4 percent) and young children under the age of 15 (42 percent), and 60 percent under the age of 25).6 Welfare indicators have recently improved slightly in Togo. The country's Human Development Index (HDI) is 0.5137 which corresponds to the HDI category of low human development. The level of poverty is declining but remains high, with an incidence of 53.5 percent in 2017, compared to 55.1 percent in 2015 and 58.7 percent in 2011. In rural areas, the poverty rate is higher, with 63.7 percent in 2017 (although down from 73.4 percent in 2011).8 The extreme poverty rate is estimated at 45.3 percent in 2019, down from 46.4 percent in 2018. Extreme poverty was expected to rise to 46.2 percent in 2020 due to rising prices and falling incomes of the poorest and most vulnerable. The effects of the COVID-19 pandemic on poverty rates in Togo remain unknown.

2. The pandemic caused economic activity to slow in 2020. Average GDP growth in Togo was robust at about 5 percent per annum in 2018 and 2019, but the country's growth forecast for 2020 was revised to 0 percent from an initial forecast of 5.5 percent. All sectors of the economy have been affected by the pandemic, as income shocks linked to restrictive containment measures caused private consumption to fall considerably.

3. Food and nutrition insecurity remain major challenges in Togo, especially in rural areas. Chronic malnutrition, acute malnutrition, and underweight affect 27.5 percent, 6.5 percent, and 16 percent of children under five years of age, respectively, mainly in the Savanes, Kara, and Plateaux Regions. The pandemic has reduced food availability and household purchasing power, thus impacting food and nutritional insecurity at the national level. According to the *Cadre Harmonisé* analysis in July 2020, food and nutrition security are under pressure, with some areas in northern Togo, such as Tandjouaré and Tempane, experiencing crisis conditions. Indeed, the effects of the pandemic combined with the lean season are putting pressure on vulnerable populations and limiting access to adequate food for nearly 1,291,059 people—22 percent of the population.

B. Sector and Institutional Context

4. Despite Togo's favorable agro-ecological conditions, the agricultural sector has not realized its potential to create jobs and increase incomes of the poorest households. On-farm productivity is still very low (due to the low use of inputs, traditional production methods, and poorly performing agricultural equipment), and irrigation potential remains largely untapped. Access to finance is still limited outside the cotton sector. The agricultural sector employs more than 60 percent of the active population. The food balance sheet is largely positive; the crop production coverage rate rose from 90 percent in 2008 to 137 percent in 2019. The trend in meat production is also positive, with the coverage rate rising from 51 percent in 2012 to 60 percent in 2019. On the other hand, the coverage rate for fishery products has declined from 35 percent in 2010 to 24 percent in 2019 due to a combination of increasing demand and stagnant production.

5. Togo has recently made strong improvements in nutrition indicators. Between 2000 and 2016, the rate of malnutrition decreased from 11 percent to 7 percent. Over the same period, the country saw a moderate reduction in stunting, from 33 percent to 28 percent. Togo's Global Hunger Index score dropped from 39 in 2000 to 22 in 2016 (IFPRI 2017). In March 2015, Togo joined the Scaling Up Nutrition (SUN) movement. Based on data from the Integrated Agriculture Food Security and Nutrition Survey, the county's overall nutritional situation is acceptable (4 percent acute malnutrition in June 2020), with the Savanes (4 percent), Kara (4.2 percent), and Central (4.5 percent) regions showing the highest rates of malnutrition.

6. Togo's social protection system is still in its infancy and represents only about 0.6 percent of GDP, implying high vulnerability of agriculture-based livelihoods. Working in a sector that is highly vulnerable to climate change, farmers, who represent 60 percent of the economically active population, have neither health insurance nor pension entitlements. Significant climatic variability caused droughts in 2013 and 2015 in some areas and increased flood risks in others. In 2015, Togo developed and validated its country resilience priorities document, the PRP AGIR 2015–2020.

7. Despite implementation of these resilience programs, current efforts to decrease climate vulnerability are insufficient. Water management measures such as irrigation remain limited, with total irrigated area estimated at 4,459 ha (about 0.22 percent of developed agricultural land). In addition, spending on agricultural research and extension is low as a proportion of total government spending in West Africa. Linkages between the research system, extension services, farmers, and agribusinesses are weak. Furthermore, mechanisms for technology dissemination and adoption are ineffective and constrained by insufficient agribusiness support services. Measures such as integrated landscape planning and management are essential to scale up CSA and improve the sector's resilience.

8. Togo's participation in the West African FSRP is justified by the country's potential to contribute to regional food system resilience and its own resilience needs. Due to its geographical position, Togo an important commercial hub for West Africa, with critical road (South–North and East–West corridors) and port infrastructure (the Port of Lomé is the only deep-water port on the West African coast).

C. Relevance to Higher-Level Objectives

9. FSRP is in line with the national policies, such as the National Development Plan (NDP 2018–22) which aims that "accelerating economic growth and reducing poverty", e.g., by addressing challenges related to the modernization of the agricultural sector of Togo. The objectives of FSRP are dovetailed with the National Agricultural Investment and Food Security Program (PNIASA) that was implemented by the Togolese Government to revive and support investment in agriculture in 2010–11 and 2010–15. Drawing on lessons from implementing the PNIASA, the Government developed a new agricultural policy for the 2030 horizon in 2015. Being fully aligned with the SDGs and the AU Agenda 2063, this policy is accompanied by the National Agricultural Investment and Food and Nutritional Security Program (PNIASAN 2017–26). The PNIASAN is derived from the ECOWAS agricultural policy (ECOWAP), which in turn is derived from CAADP under the NEPAD. The FSRP is also aligned with the guidelines of the Togo 2021-2025 government roadmap, and more specifically with strategic axis 2: Boost job creation by building on the strengths of the economy.

10. The project will contribute to the main objectives of the ongoing CPF which emphasizes strengthening governance, including strengthening institutions and accountability. The project will specifically contribute to the focus area 1 (private sector performance and job creation) and 3 (environmental sustainability and resilience) with a special focus on special themes of climate change, gender, fragility, jobs and economic transformation.

11. Gender. Within the FSRP framework, special emphasis will be placed on women and youth. For example, applications from women and youth for post-graduate (master's and doctoral) studies will be encouraged. To ensure succession planning in research teams, priority will be given to placements for young people and women. Female beneficiaries will receive subsidized inputs (fertilizer, seed) to help close the gender gap in access to agricultural inputs. Household nutrition will be improved through support for women to establish market gardens.

II. PROJECT DESCRIPTION

A. Project Development Objective

12. The Project Development Objective (PDO) is to increase preparedness against food insecurity and improve the resilience of food systems in Togo.

B. Program Results Indicators

13. **Progress** towards the achievement of the PDO will be measured by the following indicators, in line with the indicators of the FSRP MPA.

Table A4.1: Results indicators for Togo

Indicator	Baseline	End target
PDO-level (outcome) indicators		
Program beneficiaries (number and percentage of female beneficiaries)	0	400,000 (40%)
Reduction of food insecure people in program targeted areas (percentage)	0	25
Food system actors accessing hydro and agrometeorological advisory services (number and percentage of female beneficiaries)	0	125,000 (40%)
Producers adopting supported climate-smart agricultural technologies and services (number and percentage of female beneficiaries)	0	135,000 (40 %)
Surface area under ILM practices in ha	0	32,500
Share of intra-regionally traded production in selected value chains (rice, soybeans, poultry) (percentage)	TBD	30%
Intermediate Results Indicators		
C1: Digital advisory services for regional agriculture and food crisis prevention & Management		
Satisfaction of farmers who have access to usable weather, climate and ag-advisory services (percentage)	0	80
Improved access to local climate information services with digital information platforms (Yes/No)	No	Yes
Agreements involving co-production of agro-hydro-meterological services between the public and private sectors (number)	0	2
C2: Sustainability and adaptive capacity of the food system's productive base		
Technologies made available to farmers by the consortium of NCoS, CGIAR and other international research institutes (number)	0	10
Percentage of nutrition-sensitive technologies (percentage)	0	30
Sub-projects selected from the ILMPs with climate-resilient measures implemented (percentage)	0	20
Spatial information system established and operational for designing and planning climate-resilient land management practices (Yes/No)	No	Yes
C3: Regional food market integration and trade		
Private-sector actors involved in regional agriculture trade that are supported by the Program (number)	0	20
Women farmers reached with assets or services to improve commercialization in selected value chains (number)	0	7,200
C5: Project management		
Beneficiaries satisfied with the Program's interventions (percentage)	0	80
Grievances registered and addressed by the Program (percentage)	0	90

C. Project Components

In line with the overall MPA program, Togo's interventions include activities designed to respond immediately to the food security crisis as well as medium- and longer-term investments. All activities to be implemented are described below.

COMPONENT 1: DIGITAL ADVISORY SERVICES FOR AGRICULTURE AND FOOD CRISIS PREVENTION AND MANAGEMENT (US$10.0 MILLION IDA)

14. ***Subcomponent 1.1: Upgrading Food Crisis Prevention and Monitoring Systems (US$4.9 million IDA).*** This subcomponent aims to strengthen the capacity of the national system for producing, analyzing, and disseminating food security and agrometeorological data, in addition to strengthening regional

coordination for bilateral data exchange and optimizing prevention and early warning systems. More specifically, the proposed program will finance activities to:

(a) **Improve regional and national capacity to deliver reliable information services on vulnerability, nutrition and food security.** This activity will strengthen the national capacity to contribute to the coordination and organization of the regional food security system (AGRHYMET center and other institutions), integrating the private sector as much as possible. This activity will build capacity and define the legal and organizational framework for a multidisciplinary working group to monitor the agricultural season and provide users with regular access to data. It will create an enabling policy environment to strengthen collaboration between the public, private, and academic sectors, and conduct further studies to refine climate-related indices to provide agricultural index insurance, an innovative financial tool for agricultural risk management.

(b) **Reorganize and improve regional and national pest and disease monitoring and management systems.** This activity will promote the development of forecasting, warning and advisory services, as well as the development of new mechanisms for monitoring and managing pests and diseases affecting agriculture and food security. Existing mechanisms for monitoring pests and diseases and collecting data on related risks will also be strengthened. It will establish a system of regular agriculture, food, and nutrition surveys (to include urban areas) and HEA10 studies, and support analysis through the Harmonized Framework; support a digital system for the collection, processing, analysis, and dissemination of early warning data for the agricultural sector, and generate data and analysis to communicate agrometeorological information; and create a national database on agro-climatic disasters for risk mapping. This activity will also provide support to strengthen EWS skills and operations and improve data flows at the regional and communal levels to support food insecurity risk monitoring and analysis tools.

(c) **Strengthen regional collaboration for food crisis prevention.** This activity will improve regional collaboration between the public, private and academic sectors by facilitating harmonized approaches at the regional level, including the creation of a learning platform for national climate information providers. It will strengthen the regional agricultural information system by integrating national and regional information systems to provide multidimensional vulnerability data. This activity will also increase collaboration between the public, private and academic sectors to support decision making through improved advisory services.

15. ***Subcomponent 1.2: Strengthening Digital Hydromet and Agro-Advisory Services for Farmers (US$5.1 million IDA).***

(a) **Improve the production of climate, hydromet, agromet, and impact-based information for use by decision-makers, farmers, pastoralists, and other actors in the food system.** Activities include (i) establishing a learning and data sharing platform for national climate information providers (public and private) and advanced training in hydrology and agrometeorology favoring the participation of women; (ii) ensuring the training of actors in GIS and remote sensing and establish a mapping of at risk areas; (iii) strengthening the integrated satellite image reception system in order to provide end-users with reliable seasonal forecasts; (iv) ensuring the sustainability of access to satellite data for all integrated information systems; and (v) organizing South-South knowledge exchanges through workshops to present good practices.

(b) **The disaster preparedness and response capacity will be improved by**: (i) creating a national disaster database; (ii) optimizing the agrometeorological observation network on the basis of a diagnostic including an equipment maintenance strategy, installing the necessary terminals, and extending the piezometric and hydrometric monitoring network; and (iii) strengthening disaster prevention and response mechanisms through an equipped watch room, communication means, dissemination of

information and warning bulletins, establishment of county risk profiles and a geo-risk disaster web portal.

(c) **Support the timely delivery and use of essential agro-hydrometeorological information to key users** including activities to (i) produce relevant agro-climatic and meteorological data and information specific to localities and make them available to farmer organizations; (ii) train actors involved in digital advisory services on agro-climatic data production and build the capacity of the private sector for a better involvement in the digital extension system; (iii) support agricultural value chain actors in accessing and interpreting climate information and digitizing advisory services to farmers; (iv) support agricultural value chain actors in their choice of alternative agricultural production and livelihood options based on climate information; and (v) scale up the Participatory Integrated Climate Services for Agriculture (PICSA) approach; impact-based forecasting, data exchange, collaboration with neighboring countries and regional institutions.

(d) **Strengthen the financial and institutional sustainability of regional and national institutions providing climate, hydromet, and agromet information.** The activities planned within this framework aim at developing and popularizing a multi-hazard warning strategy by strengthening the collaboration of public, private and academic actors and designing a national strategy for public-private partnership, including regulation and accessibility of agrometeorological data in line with regional policies.

COMPONENT 2: SUSTAINABILITY AND ADAPTIVE CAPACITY OF THE FOOD SYSTEM'S PRODUCTIVE BASE (US$47.6 MILLION IDA)

16. ***Subcomponent 2.1: Consolidate Regional Agricultural Innovation Systems (US$15.6 million IDA).*** This subcomponent aims to strengthen regional agricultural research and advisory systems in order to generate sustainable technological innovations, including climate-smart technologies, integrating nutrition, gender and youth.

(a) **Strengthen National and Regional Research Centers**.- The activities planned within this framework are: (i) formalization and operationalization of the SNRAA (National Agricultural and Agro-Industrial Research System) in Togo; (ii) strengthening of research and extension infrastructure, equipment and personnel; (iii) activation of the accreditation process of the seed laboratory to ISTA standards and of the field quality control process to OECD standards; (iv) development of an approach to food quality control and strengthening of the national quality control and input certification system; (v) reconstitution of the national gene bank for the conservation of food crop genetic resources; and (vi) support for the establishment of a National Specialization Center (NSC) on bio risk management with an emphasis on synergy and collaboration with ongoing initiatives in the sub-region.

(b) **Deepening and expanding regional R&D networking**. The activities in this framework are: (i) support for the conduct of research activities at the national and regional levels through the mechanism of competitive and commissioned subprojects; (ii) participation in regional scientific planning activities through exchange trips and sharing of experiences on technologies available in the NSCs/RCEs of interest; (iii) scientific and capacity building visits to the NC0S/RCE on topics related to the improvement of resilience; and (iv) the updating of fertilizer recommendations initiated in the framework of the development of the Togo fertility map.

(c) **Modernize national extension services.** The program will finance the development and implementation of a national agricultural extension strategy with private sector participation, while considering new approaches and innovative communication tools (digital, innovation platforms promoted by the private sector and producer organizations). This strategy will have to consider the specificities of women and youth in the issue of access to innovative and low-cost technologies. Capacity building for gender mainstreaming in the targeting of beneficiaries will be organized for all agricultural advisory actors.

(d) **Promote technology access and exchange.** The activities include the promotion of modern technology platforms, including value chain innovation platforms, innovative mechanization services, upgraded national seed systems and soil fertility management capacity (soil map preparation, soil testing, and soil fertility monitoring).

17. ***Subcomponent 2.2: Strengthen Regional Food Security through ILM (US$32.0 million IDA).*** The activities aim to:

(a) **Establish participatory ILM.** Within this framework, an action plan to carry out mobilization and awareness-raising activities for participatory management of the landscape will be developed (a landscape may be in one commune or bring together several communes); the expected results are: characterization and delimitation of the landscape, co-construction of a shared development vision and development of an integrated landscape development plan, establishment or strengthening of the functioning of landscape development committees as well as capacity building.

(b) **Enhance the resilience of eco- and food systems in priority landscapes. A first set of investments that fall into this category has already been identified (see para 20 and 21). This activity will then support the implementation of some of the investments identified in the ILMP under (a)** is important to emphasize at the outset that these investments are not directly dependent on the results of the planning activities, although they are obviously linked. This means that the investments will not be compromised by any delays the integrated landscape vision and action plan. The two groups of activities will be carried out in parallel, with progress in each group feeding into the other. Some priority investments have already been identified during the preparation of the program. These activities will benefit from the orientations and innovations proposed by subcomponent 2.1 in terms of research and innovation

(c) **Secure resilient eco- and food systems beyond priority landscapes.** The project will support the formalization of 10 Productive Alliances (PAs), or groups of small-scale producers of selected key products in the targeted landscapes (such as non-timber forest products), and assist them in developing their business plans and entering into contractual arrangements with national and international buyers. Based on the specific contractual arrangements and business plans of each PA, capacity building and/or equipment support will be provided. This activity is complementary to Subcomponent 3.2 in that it focuses on small-scale local producers, and helps them connect to markets.

18. **The landscape sites identified include the Kpendjal landscape and other specific areas** (the central western part in the Mo plain, and along the Mono River in the eastern plateau)**.** The priority actions identified are related to the restoration of degraded lands and watersheds, the integrated management of soil fertility (taking into account mitigation measures for agro-chemicals pollution as stated in the E&S instruments) and water resources, and irrigation, all geared towards promoting the sustainable management of natural capital. The project will provide support for: (i) the rehabilitation of irrigation infrastructure (lowlands, irrigation systems, water reservoirs) to facilitate the installation of young people and women, including the rehabilitation of 563 ha and the rehabilitation of 350km of rural roads to improve linkages to markets; (ii) activities to restore heavily degraded agricultural areas at the level of watersheds through community reforestation, the installation of anti-erosion barriers such as stone barriers and other appropriate techniques; (iii) the rehabilitation of lowlands according to simple and inexpensive techniques (ETS-RICE approach); and (iv) the modernization of existing agricultural development zones with boreholes equipped with solar pumps and the provision of 5,000 irrigation kits to smallholders.

19. In terms of interventions for the restoration of pastures in pastoral areas that are highly solicited during the transhumance period, this subcomponent will support the establishment of managed grazing areas. FSRP will intervene in three localities of intense pastoral activities, namely Tchapossi (Dimori) on 345 ha, Sagada (Tetetou) on 6,676 ha and Yans on 15,260 ha. In times of food shortage in the Sahel countries, cattle herds flood into Togo through the Savannah region to head for the natural rangelands as far south as

the Plateaux region. This system receives support from the national livestock services and was organized and equipped with tracks (sanitary roads) to facilitate the cattles movement both into and within Togo. Tracks are controlled by guides who ensure the safety of transhumant herders and farmers and thus lead them to the main site in the Savannah region, which is Sansanne-Mango. Despite these measures, conflicts have erupted between farmers and herders in search of fodder and water points for their herds. These areas will allow the relocation of herders and their herds to dedicated areas in order to provide them with the minimum and thus avoid the harmful effects of transhumance. The program will develop a model that favors coexistence between farmers and pastoralists and avoids conflicts. The program will support the modernization of existing plots of land developed for the production of fodder crops on an area of about 1500 ha in the three target areas, with the installation of pumping systems and other related infrastructure.

20. In terms of natural resource conservation, it has been noted that the Koumpienga dam (located in Burkina Faso) discharges uncontrollable flows into the Oti basin causing significant damage in the target area. Currently, a hydrological forecasting model on the basin (FEWS) allows to give some alerts to vulnerable populations living along the basin. The FSRP will reinforce this monitoring and alert system to provide timely information to farmers on the water flow. The local committees (CVD, CDQ), local authorities and communes will participate in an inclusive approach to the identification and selection of sites to be developed. For all zones, the site identification process will be conducted by the Regional Directorates of Agriculture, in collaboration with the prefectures and municipal councilors. Capacity building in community management of the structures to be built is planned. To this end, an agreement will be signed with NGOs at the local level to support the process of shared development and the elaboration of an integrated landscape development plan in the program's target areas.

21. The targeted zone offers advantages for income diversification through the fruit and vegetable sector with actions oriented towards the promotion of market gardening, maintenance and renovation of orchards, particularly mango, orange and papaya trees. Emphasis will also be placed on the promotion of small-scale livestock and animal health by capitalizing on the achievements of the implementation of PASA and WAAPP. The program will also support the establishment of processing units for nutrient-rich products and the use of foods with high nutritional value, capacity building for actors in the field of processing, and support for women's cooperatives through economic diversification activities.

22. ***scaling up the ILM approach.*** The program will support the development, certification and dissemination of a participatory ILMP with the communities, who will also be involved in its implementation. The extension or dissemination of information or technologies will focus on empowering the beneficiaries (farmers and others) and involving them in decision making. The facilitation of the implementation and monitoring of beneficiaries' activities will be focused on contact groups (farmers' organizations, committees and sub-committees for the management of infrastructures installed in the program areas, etc.) in which women, including youth, will be members of the decision-making bodies. Through ICT and the media, dissemination through learning based on the "farmer-to-farmer agricultural training videos" approach will be supported. In order to ensure a better dissemination effect of the technical advice interventions to the beneficiaries, endogenous animators or facilitators (40 to 50 percent women) will be designated at the contact group level to relay the information or knowledge to the members of their communities. Participatory ILM activities will be implemented in collaboration with local NGOs and community leaders.

COMPONENT 3: REGIONAL FOOD MARKET INTEGRATION AND TRADE (US$26.2 MILLION IDA)

23. ***Subcomponent 3.1: Facilitate Trade Across Key Corridors and Consolidate Food Reserve System (US$5.9 million from IDA*)**. Under the leadership and coordination of ECOWAS, the subcomponent aims to strengthen the resilience of food systems and accelerate regional trade in a healthy business environment. At the country level, this subcomponent will support the following activities:

(a) **Harmonize national agricultural trade policies with regional instruments.** The country's policies will be harmonized and aligned with instruments on input trade, food safety, norms, standards and non-tariff barriers for agricultural products. The program will finance the process of consultation, elaboration, adoption and dissemination of these instruments.

(b) **Build national capacity for agricultural trade negotiations**. Within this framework, technical staff and private partners involved in the negotiation of agricultural trade tariff regimes will be trained. The program will support the participation of the country team in training sessions organized by ECOWAS, national facilitations and consultations, and the dissemination of training tools. The program will also strengthen the capacities of public structures involved in agricultural trade to support intra-regional trade (ministries in charge of customs, trade, industry, agriculture, transport, investment and export promotion structures, etc.), and will put in place incentives to improve quality (fair hearing, free audit, low-cost training session for economic operators in agricultural value chains). The program will support the gradual operationalization of the international system of units of measurement, in conjunction with the IFAD-funded Integrated Regional Agricultural Market Project (PRIMA) between Benin and Togo.

(c) **Develop an ECOWAS Agricultural Trade and Market Scorecard.** ECOWAS will put in place an accountability mechanism on the implementation of policy commitments on agricultural trade and market access as outlined in the ETLS and ECOWAP. At the national level, the program will finance the participation of country experts in training sessions at the regional level, training of trainers at the national level, preparation and validation of the country report on the implementation of agricultural trade policies, and dissemination of the country report.

(d) **Improve Regional Food Reserve System performance.** The program will support the adoption at the country level of instruments developed by ECOWAS on regional reserves. These investments will include physical support for the construction of infrastructure for stockpiling and purchasing grain at the community (local) level as well as the adoption of financial instruments, including detailed operational procedures on risk financing of regional reserves. The program will therefore support the implementation of the SNSSAN, in particular through the improvement of the institutional framework, support for the constitution of physical stocks of foodstuffs (flour, cereal semolina and feed), the strengthening of infrastructure and equipment, as well as training and retraining.

24. ***Subcomponent 3.2: Support the Development of Strategic and Regional Value Chains (US$20.3 million IDA).*** Under this subcomponent, the program will support the development of value chains, focusing on upstream and downstream segments of the targeted commodity chains (rice, soybean, poultry) in order to increase the availability of products in quantity and meeting standards, and to create value added for sustainable food and nutritional security. This will have tangible positive impacts on regional food security. Specific activities to support value chains under this subcomponent include:

(a) **Strengthen value chain organization and financing.** Support to inter-professional organizations and the development of multi-stakeholder platforms. The program's activities will focus on updating and implementing national action plans to promote value chains that have comparative advantages with other countries in the subregion, through support and restructuring of value chains, continued establishment of innovation platforms and productive alliances for integrated development. At the end of the characterization work on the soybean, rice and poultry sectors, the program will support the digitization or virtual integration of a pilot value chain in each sector, and will provide assistance to promoters in the preparation of their business plans. Finally, the program will work to remove barriers to the development of agricultural value chains by supporting tangible and intangible investments to facilitate consolidation, processing, packaging and national and regional marketing. However, the program will progressively open up to new value chains, as and when their economic importance is demonstrated, and they have been characterized**.**

(b) **Support agricultural competitiveness and market access infrastructure.** The program will finance support to producers and processors of local products in the certification of their products through the identification of actors in each value chain and capacity building; the promotion and implementation at the national level of the ECOWAS mechanism of responsibility for trade in agricultural products and citizen monitoring (health, prices, standards); improved adoption and application of agreements and standards; improved logistics of agricultural products and compliance with quality standards of the value chains.); improved appropriation and application of agreements and standards; improved logistics for agricultural products; compliance with quality standards for the sectors; support for the labeling of specific products to boost trade in the selected value chains; support for essential investments to structure the links in the targeted value chains; improvement of value added within the selected value chains through support for the establishment of processing units and post-harvest management infrastructure (storage infrastructure, cold rooms, extension of electrical networks); capacity building of ministries of agriculture and rural development; development of a national strategy for the development of agricultural products; capacity building of ministries, departments, and agencies involved in agricultural trade at the national and intra-regional levels; and support for informal cross-border trade and streamlining trade formalities and documentation procedures through capacity building of actors at all levels.

(c) **Strengthen multistakeholder coordination and promote a private sector enabling environment.** The program will support the organization of multi-stakeholder workshops including umbrella organizations, financing institutions, public agencies, and advocacy associations; as well as public-private sector dialogues to catalyze priority policy reforms, the creation of an enabling business environment, and advocacy support for non-state actors. The program will also finance dialogue meetings and consultations, analytical studies to strengthen advocacy, and follow-up on public-private dialogue recommendations**.**

25. The program will support private initiatives within the MFD framework and will rely, for Subcomponent 3.2, on the MIFA SA intervention mechanism which involves close collaboration with financial institutions. The in-depth analysis of agricultural value chains will rely on the FAO TA already mobilized within the framework of the ProMIFA (financed by IFAD) by adding a rider to the initial contract, in order to maintain the same approach to the construction of value chains. The program will contribute to an increase in the volume of loans to the agricultural sector, an improvement in the quality of the agricultural credit portfolio of the partner Financial Institutions (FIs), and the operational and financial viability of these institutions through TA for the consolidation of the financing mechanism and risk mitigation; as well as the establishment of a fund to support structuring investments. Funding in the selected value chains will have a gender focus and will particularly support youth and women who are either first-time entrepreneurs or want to consolidate/expand their investments in the targeted value chains. For each type of facility, MIF A and the program coordination will review the procedures and propose the implementation procedure clearly outlining the proposed alternatives to public procurement procedures while ensuring fairness and transparency. These procedures will define, according to the sectors, the infrastructures that will be built by the public and put into operation in a public-private partnership. Young people and women will be taken into account through support for processing and conservation equipment on the basis of subprojects. The project will promote self-employment and set up technical support mechanisms for young people and women in priority areas based on skill deficits to promote income-generating activities and job creation.

26. Project support will be in the form of a Matching Grant under tripartite co-financing (Operator - Bank - Project Facility). For this purpose, the grants will be made through three windows.

(a) Window 1: For this window, calls for proposals will be organized to collect projects or project ideas that are relevant to the objectives of the FSRP. The promoters will benefit from the support of MIFA SA to develop/refine their business plans that will be submitted for financing. Potential beneficiaries are micro and small agribusinesses and agricultural service providers to finance their activities in the three target

sectors of the project up to 70 percent of the eligible costs of the sub-projects (200 sub-projects with a maximum cost of 15,000,000 FCFA per grant).

(b) Window 2: Facilities will be put in place for the development of subsidies on investments such as the acquisition of agricultural production equipment and machinery, post-harvest technologies, installation and modernization of processing units and storage facilities. Also, the promotion of export and processing of Togolese agricultural products in the three priority sectors by promoters will be supported. The supported sub-projects will have to present aggregation schemes (clusters) in order to secure their supply of raw materials and thus constitute outlets for the farms. They will take into account, all or part of the needs of all actors participating in the cluster. It will also support investments in land development, irrigation and production equipment (small mechanization). Grant amounts will be up to 50 percent of the eligible costs of the sub-projects (60 aggregation sub-projects involving at least 100 farmers, with a maximum of 50 000 000 FCFA per grant).

(c) Window 3: Beneficiaries will be SMEs and producer groups led by women and youth, agricultural farms, cooperatives and nurseries that will receive grants covering up to 85 percent of sub-project investment costs. (350 sub-projects with a maximum of 7,000,000 FCFA per grant).

27. In addition, the FSEP guarantee fund will be revitalized in order to also contribute to the financing of the actors of the agricultural value chain. MIFA S.A., through a partnership with the project, will accompany the beneficiaries/promoters of eligible sub-projects thanks to its expertise and its network of partners (financial institutions, research services, extension services, service providers and NGOs, etc.).

COMPONENT 4: CERC [US$0.0 MILLION IDA]

COMPONENT 5: PROJECT MANAGEMENT (US$6.2 MILLION IDA)

28. This component will establish an effective coordination, management, and M&E system for the program. At the national level, the Togo FSRP will build on the successful institutional arrangements of the WAPP/SWAPP that are in place. This component will ensure the implementation of the following key activities: (i) FM and procurement systems; (ii) reporting on program activities; (iii) environmental and social safeguard aspects; (iv) M&E at the regional and national levels; and (v) a knowledge management and communication for development strategy. It will also include a strategy for targeting youth, gender and nutrition.

29. This component will also support the consultancy services for the realization of the impact study of the project at the national and regional levels. A baseline study in the target areas will be carried out followed by the establishment of a beneficiary monitoring panel with the technical contribution of the Directorate of Statistics of the Ministry of Agriculture.

D. Beneficiaries and Areas of Intervention

30. **Beneficiaries.** The program will directly and indirectly benefit all stakeholders in the selected intervention areas and value chains. Project beneficiaries will include actors in the value chains of the targeted commodities (producers, breeders, fish farmers, fishermen, processors, distributors, and so on). Small and medium agribusinesses, aggregators, cooperatives, and organization of family farmers will be supported through a financing mechanism for activities in the targeted value chains. The number of direct and indirect beneficiaries is estimated at 400,000 people, including 160,000 women, or about 40 percent. FSRP will place particular emphasis on reaching women and youth beneficiaries.

31. **Areas of intervention.** The intervention areas in Togo are located in Savanes Centrale/ Kara, Plateaux and Maritime, as shown in Annex 16. The selected landscapes, where ILM will be implemented, are Kpendjal and South Oti, covering the following localities: Koundjouaré (Kpenkankandi), Papri, Koudjoaré, Djabdjoaré (cattle market area), Tanbigou, Borgou. The ILM approach will also be implemented in the watersheds of the Oti River in northern Savanes Region, the Mô Plain in central western Togo, and along the Mono River in the Eastern Plateau area.

E. Project Costs

32. The total cost for all national components is US$90 million (IDA), as shown in Table A4.3

Table A4.3: Program costs by component, FSRP–Togo

Component	Costs in US$ millions
C1. Digital Advisory Services for Agriculture and Food Crisis Prevention and Management	10.0
C1.1. Upgrading Food Crisis Prevention and Monitoring Systems	4.9
C1.2. Strengthening Digital Hydromet and Agro-Advisory Services for Farmers	5.1
C2. Sustainability and Adaptive Capacity of the Food System's Productive Base	47.6
C2.1. Consolidate Regional Agriculture Innovation System	15.6
C2.2. Strengthen Regional Food Security through ILM	32.0
C3. Regional Market Integration and Trade	26.2
C3.1. Facilitate Trade Across Key Corridors and Consolidate Food Reserve System	5.9
C3.2. Support to Development of Strategic and Regional Value Chains	20.3
C4. Contingent Emergency Response Component (CERC)	0.0
C5. Project Management	6.2
Total	**90.0**

III. IMPLEMENTATION ARRANGEMENTS

A. Institutional and Implementation Arrangements

33. The program will make use of the coordination unit set up by the Ministry of Agriculture, Livestock and Rural Development (MAEDR), which also coordinated the WAAPP/ASAP since 2011 in a satisfactory manner. Activities will be implemented by MAEDR under the responsibility of the General Secretary who will delegate coordination to the Deputy Operational Coordinator (DOC). The DOC will be responsible for fiduciary and operational management including operational planning, administrative, financial and accounting management, implementation and technical supervision (including procurement, knowledge management and production, and the Monitoring and Evaluation System).

34. The specific implementation arrangements are: the FSRP coordination unit is composed as follows: The DOC, a FM specialist, accountants and their respective assistants dedicated to each component, a procurement expert and assistants dedicated to each component, an M&E specialist as well as specialists dedicated to each component, a communication officer, an environmental safeguard specialist and a social specialist with their respective assistants. The current environmental and social specialists in the PIU will be maintained throughout the project lifecycle. In addition, one social consultant, one environmental consultant, and one GBV consultant will be recruited no later than 30 days of project effectiveness and shall be maintained throughout the project. The strategic steering and supervision of the program will be carried out by a National Steering Committee (Inter-ministerial Strategic Steering Committee (CIPS) and a Technical Steering Committee (CTP). A review of the decrees establishing these bodies is necessary to take into account the new actors.

35. The National Steering Committee Inter-Ministerial Strategic Steering Committee (CIPS), chaired by the Minister in charge of Agriculture, Livestock and Rural Development and includes representatives of the Government, the donors and the signatories of the partnership framework. This committee provides overall strategic guidance and oversight on project implementation and will review and approve annual work plans and budgets and serve as the ultimate authority to solve potential impasses that may arise with respect to specific reforms and strategic decisions. It meets at least twice a year to adopt reports and ensure compliance with the program strategy. The CIPS will supervise the overall implementation of the program.

36. The Technical Committee established under the National Steering Committee to supervise project implementation (for example, ensuring that implementation is in line with the objectives and scope of the project; ensuring that the annual work plan to achieve the project objectives is within the agreed time frame

and budget; and managing risks and issues that arise during the project implementation). The technical committee is chaired by the by the General Secretary of MAEDR. It includes the technical services of the Department of Agriculture and representatives of other ministerial departments and producers. The committee meets at least three (3) times a year to approve the Annual Work Program and Budget (AWPB) and the progress and annual reports. The Secretary General is assisted in the committee coordination by the Directorate of Policy, Planning and Monitoring and Evaluation (DPPSE) and the Directorate of Financial Affairs (DAF).

37. The Secretary General will sign with each of the appropriate Directorates of the Ministry in charge of agriculture and partner structures a results-based MoU for the implementation of the activities of the Project components that will be supported by the agreements according to the adopted AWPB.

38. *Institutional arrangement for implementation of technical components*: The MAEDR will be responsible for the coordination of project implementation. A PIU housed under the MAEDR will be in charge of implementing project components. For the implementation of each component, the PIU will liaise closely with relevant line Ministries (Water, Trade, Environment, Transport and Infrastructure) and their decentralized entities, specialized agencies, NGO, community organizations, as well as producers apex organizations as described in the Table A4.2 below. The PIM will provide further details on implementation arrangements for each component, including roles and responsibilities of participating entities.

Table A4.2: Implementation Arrangements in Togo

Component	Leading Structure	Other partners involved	Mechanism/ arrangement
Component 1	PIU/MAEDR		Convention
Sous Component 1.1	PIU/MAEDR	ITRA, DSID , DRE, Direction de la Meteo, ANPC, Ministry of Health	Convention
Sous Component 1.2	PIU/MAEDR	ICAT, cell phone company, agri-businesses, service providers, civil society, DPV, ANPC, DRE, MERF,	Contract and/or Convention
Component 2	PIU/MAEDR		
Sous Component 2.1	PIU/MAEDR	ITRA, ICAT, UNIVERSITY OF LOME, UK, ISMA, DFV, DSP, INFA, ESA, SNRA	Contract and/or Convention
Sous Component 2.2	PIU/MAEDR	ICAT, ITRA, DAEMA, CAGIA, DE, NGOs, MAEDR decentralized services, DAEMA, Health, CTOP, Chamber of Agriculture, Civil Society	Contract and/or Convention
Component 3	PIU/MAEDR		
Sous Component 3.1	PIU/MAEDR	ECOWAS, ANSAT, HAUQE	Contract and/or Convention
Sous Component 3.2	PIU/MAEDR	MIFA SA, PATRONATE, INTERPROFESSIONS, Private sector, CCIT, M commerce, Ministry of infrastructure and energy, DFV	Contract and/or Convention
Component 5	PIU	DPPSE, DAF, DSID, DRAEDR, DPAEDR Civil society	Convention

B. Monitoring and Evaluation

39. A comprehensive M&E system will be put in place to provide quality data to inform the results framework and enable the Government and the World Bank to respond immediately to any issues regarding program implementation. The PIU will be responsible for overall M&E of program results and impact, as well as the development and monitoring of annual work plans. The M&E system will include a management information system (MIS) that will record all information related to program activities (GEMS),

including FM data from which statements of expenditures will be provided to the World Bank, and program management information. Semi-annual joint supervision missions will ensure compliance with legal commitments. A mid-term review will be conducted to assess progress and, if necessary, adjust the program design.

C. Environmental and Social Risks

40. Environmental risks and impacts. The FSRP uses the World Bank's ESF, which provides a holistic tool for identifying and managing environmental and social risks and opportunities in program design and evaluation. The expected environmental and social impacts of the program will be positive overall. The program will finance the construction of essential public infrastructure (rehabilitation of the rural road network). Some of the program activities could result in the loss or disruption of income or livelihood activities for individuals or groups of people, or a restriction of access to resources. Some of the potential negative effects on the environment could include: water and soil pollution from the use of fertilizers and pesticides; partial loss of vegetation due to unauthorized deforestation of river and lake banks; environmental nuisance in the absence of an appropriate waste management system for waste from the processing units, work accidents at infrastructure sites, etc.

41. Environmental and Social Risk Classification. The Environmental and Social Risk Classification (ESRC) conducted under the World Bank's ESF assessed the overall risk of the program as substantial, based on the ESS relevant to the program including: Environmental and Social Risk and Impact Assessment and Management (ESS 1), Stakeholder Engagement and Information (ESS 10), Employment and Working Conditions (ESS 2), Resource Efficiency and Pollution Prevention and Management (ESS 3), Human Health and Safety (ESS 4), Land Acquisition, Land Use Restrictions and Involuntary Resettlement (ESS 5), and Cultural Heritage (ESS 8). Based on this assessment, the Government has prepared drafts of appropriate safeguard instruments, including: (i) an ESMF; (ii) a Pest Management Plan (PMP); and (iii) a RPF. Three additional documents required under the ESF were also prepared, namely the ESCP, the SEP, and the LMP.

42. Risk and Impact Management Measures. To minimize the potential risks and adverse impacts associated with the program activities, the ESMC and PMP have been prepared in accordance with the national legal and regulatory framework and the World Bank's ESS. The ESMF describes the procedures and processes to be followed for the preparation and disclosure of site-specific safeguard instruments, namely the Environmental and Social Impact Assessment (ESIA), including an ESMP, as required once the exact locations and scope of a specific activity are known. Specific instruments will be prepared (ESMP-C, PPSPS, EAP, etc.) as needed for infrastructure subprojects to ensure safety, health of workers and neighboring populations, and waste management on construction sites. Like the CGES, the PMP has also been prepared. The document establishes orientations and guidelines to protect the health of the population and the integrity of the environment by promoting best practices in the use of chemicals. The different documents prepared will be reviewed, validated and published before the start of activities. To ensure the proper implementation of the safeguard instruments developed, the PIU will have an environmental safeguard specialist and a social safeguard specialist.

43. Social Risk. Some program activities, including infrastructure construction and rehabilitation, could involve restrictions on land use and/or involuntary resettlement issues as well as loss of property, loss or interruption of sources of income or livelihood, and restriction of access to natural resources for individuals or groups of people. Since the exact location of expected investments is not yet known, a RPF has been developed in accordance with the national legal and regulatory framework and the ESS5. The RPF has been prepared and will serve as a guide for the preparation and implementation of eventual RAPs. The program will also employ a variety of people ranging from UPI staff to local community workers. A WMP has therefore been developed to ensure that working conditions, complaints mechanism, and prohibition of child labor/forced labor and SEA are outlined and adhered to by the program. The prevalence of child labor is of particular concern in the agricultural sector and should therefore be addressed by the program. Finally, the program has developed a complaints mechanism for the community and workers that will be

implemented by the program to ensure that complaints are heard and responded to in a timely and effective manner. Unresolved complaints can often lead to social unrest and discontent, so it is important that the GM developed be implemented as indicated.

44. **GBV**. The program's risk of GBV and SEA was rated as moderate based on the assessment conducted through the GBV risk assessment tool. Mitigation measures will be documented in an action plan to ensure that people, mainly women and girls, are informed and have a safe and confidential place to report GBV/SEA risks or cases created by the implementation of the program. The action plan with information, communication and capacity building activities will be developed and regularly updated during the implementation of the program.

45. **Citizen Engagement.** A Stakeholder Engagement and Information Disclosure Plan (SEIDP) reflecting key program stakeholders and consultation and participation activities has been prepared. The program will develop a comprehensive consultation and participation strategy to better involve and engage citizens and local communities in the program area in the identification, selection and implementation of program activities. It is particularly important that the program take into account vulnerable stakeholders and hold separate meetings with them and with women to allow their voices to be heard. It is also important that the program allows for the full participation of all stakeholders to avoid elite capture. Consultations and information provided must therefore be accessible to all, culturally appropriate, organized at times that are convenient for particularly vulnerable groups, and in a language spoken by all with support for those who are illiterate.

IV. RISKS

46. **The overall risk associated with the implementation of the program is assessed as substantial**. The Program risks deemed substantial, and the associated mitigation measures are summarized below:

(a) *Macroeconomic*: (**Substantial**): Macroeconomic risks are "substantial" as the COVID19 crisis remains uncertain. The severity of the economic fallout is growing and and uncertainty remains high regarding a possible second wave and the availability of a vaccine. A longer-than-expected crisis could delay economic reforms and slow the recovery, as government efforts will focus on mitigating the negative effects of the crisis. The contraction of economic activity as a result of COVID-19 could act as a brake on private investment in the value chains supported by the program.

(b) *Technical Program Design* **(Moderate)**: The overall program design for the implementation of the PDP covers a large program that is necessarily complex. However, the program management team is quite experienced and will use the appropriate degree of flexibility to properly implement the program in a sequential approach;

(c) *Institutional Capacity for Implementation and Sustainability* (**Moderate)**: Reasons for this assessment include the team's experience in implementing the OFDAP and ASAP. However, there is a lack of laws and regulations, as well as various distortions in the promotion of the private sector in the agricultural and agribusiness sector. The program will build the capacity of key MAEDR directorates to better address policy and regulatory issues related to the business environment for private sector interventions in the targeted value chains;

(d) *Fiduciary* **(Moderate)**: The program's FM and contracting capacity is at a sufficient level for program implementation. The risk mitigation measures put in place and the capacity building of the fiduciary team will allow for optimal implementation of the program.

ANNEX 5: ACTIVITIES IMPLEMENTED ON THE REGIONAL LEVEL BY CILSS

Subcomponent 1.1: Upgrading Food Crisis Prevention & Monitoring Systems

1. **The subcomponent aims to transform the regional food security and agriculture information system in order to support risk management decision-making.** A special emphasis is placed on the promotion of private sector involvement through the development and implementation of a strategy fostering national Public Private Engagement (PPE) with a dialogue platform at the regional and national level. This strategy will allow to (i) promote different models of partnerships with the private sector; (ii) develop investment plans and projects to leverage opportunities to partner with private companies; (iii) facilitate an open access to relevant hydrological and meteorological data and basic services; (iv) identify and remove policy-related barriers for PPE and collaborative business models; and (v) facilitate the introduction of collaborative approaches in Component 1 activities. Innovative elements will come from advances that have recently emerged in meteorological and hydrological forecasting and the digitalization of agriculture and food security information systems. Key innovative drivers like the development of information, sensing and telecommunication technologies, artificial intelligence (AI), machine learning, and new technologies to communicate data sets as well as innovative business models will be essential when partnering with companies that have developed services in these fields.

2. **To improve the performance of regional food crisis prevention and management systems and to strengthen its operational capacity and institutional sustainability,** CILSS AGRHYMET will engage in the following activities:

(a) **Improve regional and national capacity to deliver reliable information services for food and nutrition security, including by upgrading** *Cadre Harmonisé (CH)* and ECOAGRIS**.** Under Subcomponent 1.1 (a) CILSS AGRHYMET is expected to:

- Increase its technical and advisory support for countries to collect, manage and use data more effectively for *Cadre Harmonisé* and the ECOAGRIS platform. More specifically, activities will include:
    - Conducting extensive capacity-building measures to train staff for better service provision to Member States
    - Providing countries with advice and guidance on data collection practices integration and analysis by adopting improved ICT infrastructure and improved tools (e.g., through remote sensing-based collection of food insecurity data in addition to the collection of field level data or by better collaborating across sectors through public-private engagements.).
- Invest into CILSS AGRYHMET ICT equipment. Operationalize regional integrated database management, including through automating data feed and making food security, Hydromet, and early warning data more easily accessible and available to all relevant actors based on open access principles, when possible
- Improve design, accessibility, and dissemination of CILSS AGRHYMET food security early warning and response services (i.e., *Cadre Harmonisé*, ECOAGRIS) to better align services with end-user needs at various levels and sectors[52].
- Strengthen operational linkages (e.g., regarding the flow of information across intervening actors, integration of various digital data streams for better decision making) between Cadre Harmonisé, ECOAGRIS, pest and disease monitoring as well as climate information services.

[52] Regional level: ECOWAS/CILSS; National level: agriculture ministries, civil protection system; Sub-national level: municipalities, regional government, NGOs, CSOs; see also Annex 2.

(b) **Reorganize and improve regional and national pest and disease monitoring and management mechanisms**. Under Subcomponent 1.1 (b) CILSS AGRHYMET is expected to:

- Strengthen phytosanitary data collection and knowledge management.
- Develop and operationalize harmonized phytosanitary data management and forecasting systems.
- Improve and operationalize harmonized phytosanitary data management and forecasting systems.
- Strengthen regional phytosanitary information production and sharing and dissemination
- Support the INSAH in improving the information system to collect data on agricultural post-harvest losses.
- Strengthen regional harmonization of regulation and registration of pesticides in coordination with ECOWAS.

(c) **Strengthen regional collaboration for food crisis prevention** through harmonized approaches and promotion of collaborative public and private sector engagement. Under Subcomponent 1.1 (c) CILSS AGRHYMET is expected to:

- Improve the governance and capability of information systems in the region including by inter alia:
  - Linking regional and national systems to achieve economies of scale, streamline data collection efforts and increase timeliness of information transmission.
  - Coordinating regional meetings/trainings to build capacity and validate results.
- Coordinate thematic regional working groups with representatives from regional bodies and competent national entities to streamline food security early warning systems, climate and agromet services and related advisory services. The working groups will oversee harmonization efforts of food security systems related data collection, analysis and sharing protocols and operating procedures; and exchange lessons-learnt; and jointly develop short term and long-term goals for relevant technical areas, and report on progress against these goals.
- Strengthen engagement with private sector, to collect, analyze and disseminate data and services relevant to the operation of early-warning systems related to food crisis prevention.

Subcomponent 1.2: Strengthening Digital Hydromet and Agro-Advisory Services for Farmers

3. **The Subcomponent aims at developing new services, improving the quality, and increasing access to and use of impact-based and location-specific weather, climate and hydrological (hydromet) information as well their application to agriculture (agromet) tailored to the needs of the agriculture sector with a special focus on the needs of the most vulnerable groups including women, young farmers, and pastoralists.** To improve the operational capacity of agro-and hydrometeorological information systems at regional level and its institutional performance and sustainability, CILSS AGRHYMET will engage in the following activities:

(a) **Improve production of hydromet, climate, agromet and impact-based information by decision-makers, farmers, pastoralists, and other actors in the food system**. Under Subcomponent 1.2 (a) CILSS AGHRYMET is expected to:

- Strengthen its own technical capacity to produce and disseminate agro-hydro-meteorological services including through utilizing the latest global state-of-the-art information services and investing in ICT equipment (mentioned also Subcomponent 1.1 (c)).
- Provide critical and targeted technical support to FSRP countries and their national hydro-meteorological services concerning weather, climate, hydrological and agromet information services, including by

- Harmonizing the way hydrometeorological data are collected, managed, and exchanged within the region and assisting countries in strengthening hydromet data collection, transmission, and management.
- Improving the quality of regional information products by developing and introducing new services including sub-seasonal to seasonal timescale climate products.
- Translating hydrometeorological forecasts into impact-based information, warning and advisory services into accessible formats that are better tailored to the needs of agriculture and food security sector (producers, producer organizations, processors, traders etc.).

(b) **Support the timely delivery and use of essential agro-hydrometeorological information.** Under Subcomponent 1.2 (b) CILSS AGHRYMET is expected to:

- Improve the quality and delivery of a Regional Climate Outlook
- Develop and Operationalize a Regional Hydro-Climate Hazards watch system at AGRHYMET
- Initiate and facilitate a regional dialogue with the private sector, with the objective of
  - Establishing and institutionalizing a regional dialogue platform on hydromet/agromet public-private engagement to better connect the public and the private sectors and to share experiences. This will be started at the regional level through a series of meetings, workshops, and events with private and public stakeholders.[53]
  - Helping public entities to leverage the growing capabilities of the regional and global private sector in the field of hydromet and agromet services and to make their own investments as efficient and effective as possible.
  - Strengthening current collaborations as well as identifying and implementing new models of cooperation between public and private hydromet and agromet data and service providers, for instance to develop information products that are more responsive to needs of stakeholders along agriculture value chains including producers/producer associations or to support countries to produce and deliver agro-meteorological information to the last mile communities in a timely, gender, youth-sensitive and cost-effective manner.

(c) **Strengthen its financial and institutional sustainability as the region's key provider of hydromet, climate, agromet information.** Under Subcomponent 1.2 (c) CILSS AGHRYMET is expected to:

- Develop a strategy for long-term financial and institutional sustainability including by
  - engaging in developing an updated and more sustainable business model for AGRHYMET
  - developing targeted capacity-building programs to technical staff of West African countries' NHMS and complementary new online teaching tools on subjects relevant to FSRP objectives.
  - strengthening operational linkages with the region's NMHSs in collaboration with key stakeholders such as DRM agencies and the private sector.
  - reinforce its capacity to mobilize resources from within the region and from the private sector.
- Facilitate open access to relevant hydrological and meteorological data and basic services for further development into tailored field-level products by the private and academic sectors.

[53] A first event (to be funded through CREWS as FSRP will not be yet effective) promoting public-private engagement is planned for Fall 2021.

Capacity-Building and learning agenda

4. With the support of FSRF, AGHRYMET will engage in targeted learning and capacity-building activities to enhance its technical and operational capacities as well as knowledge exchanges to strengthen both its operational and technical capacity. Specific measures and activities will, amongst others, include (i) the development and execution of targeted technical ToT-trainings based on existing capacity-gap assessments (e.g., conducted by the WMO) with the objective of strengthening AGHRYMET's role as the region's key provider of agrometeorology and hydrology-related training course for National hydrological and meteorological services (NHMS) staff of ECOWAS member states; (ii) capacity-strengthening related to the management of investment projects financed by the World Bank (comprising FM and procurement requirements as well as the World Bank ESF); (iii) dedicated trainings on best practices related to M&E; and (iv) learning exchanges and workshops with other relevant projects such as the AICCRA Project.

Institutional and Implementation Arrangements

5. CILSS has been mandated by ECOWAS to coordinate the FSRP Component 1 at regional level. CILSS's Board of Directors will provide strategic orientation and oversight for the approval of annual work programs and budgets. Its Scientific and Technical Committee will be responsible for the quality (at entry and during implementation) of the program and its activities. In addition to their representative on CILSS's Board of Directors, each national institution (including NMHS) will appoint a CILSS focal person within their relevant department to ensure close coordination and communication.

6. AGRHYMET will implement program activities either directly, through sub-contracts with third parties, or through agreements (MoU) with implementing/beneficiary partners (NMHS, private companies, national institutions). It will implement its activities in accordance with detailed procedures satisfactory to IDA conditions and presented in the Program's Implementation Manual which will be developed after FSRP will have been approved.

7. AGRHYMET will be responsible for monitoring program implementation, assessing outcomes and impact level results by: (i) sub-contracting with appropriate regional and international agencies to update studies on the region's progress on climate forecasting, hydro and agro-met information, food security and gender sensitive targets; (ii) producing an annual consolidated report to be shared with all National institutions involved and ECOWAS countries; (iii) informing participating countries on a yearly basis on implementation progress and the use of funds transferred from country proceeds along with all relevant documents (including financial statements, audits and progress reports); and (iv) working jointly with national partners, especially governments' national planning departments/units to report and monitor national level progress.

8. AGRHYMET will also carry out additional program management activities through country support missions and strategic studies under Component 1. CILSS will also build further synergies with other regional organizations as part of Component 1 and the other components of the program that have a large network coverage, including CORAF.

9. Within three (3) months from the Effective Date, the CILSS will recruit the following additional PIU staff: (i) a program officer; (ii) two technical experts; (iii) a M&E specialist; (iv) a procurement assistant; (v) a FM specialist; and (vi) one accountant. For ESF activities, CILSS will appoint an environmental focal point, a social development focal point and a GBV focal point. When needed, E&S short term consultants will be hired during project implementation.

ANNEX 6: ACTIVITIES IMPLEMENTED ON THE REGIONAL LEVEL BY CORAF

Subcomponent 2.1: Consolidate Regional Agriculture Innovation System

1. To consolidate Regional Agriculture Innovation and Extension System under FSRP Subcomponent 2.1, CORAF will engage in the following activities:

(a) Strengthen Regional Research Centers and Support Establishment of new National Research Centers. In the context of Subcomponent 2.1 (a), CORAF is expected to:

- Facilitate the upgrading of NCoS[54] to RCoE (promotion and evaluation of performance according to agreed criteria)
  - Support upgrading of existing national center for rice (CNS-Riz) to become a Regional Center of Excellence (RCoE for Rice (CRE-Riz). The focus will be on building expertise on mechanization issues related to rice production and processing. CORAF will also ensure that the CNS-Riz will closely collaborate with the Nigerian National Centre for Agricultural Mechanisation (NCAM), which is the regional center for agricultural mechanization.
  - CORAF will support countries to develop evidence-based mechanization policies, strategies and investment programs that create an enabling environment; increase access to sustainable agricultural mechanization technologies, good agriculture practices and innovations; and strengthen capacity of the sustainable mechanization stakeholders along the food value chain including manufacturers of agricultural machinery by using digital training materials.
- Facilitate establishment of adequate governing mechanism for Regional Centers of Excellence (RCoE).
- Support and promote the establishment of new centers of specialization related to:
  - Biorisks Management in Togo. The center will engage in research on how negative impacts of pests and other diseases on agricultural commodities can be avoided or reduced. CORAF will ensure maximum complementarity and alignment of the mandate and activities of the new bio risks management center with existing regional efforts and initiatives on the management and control of biohazards, including relevant surveillance activities carried out by AGHRYMET and program activities in the context of the EU-funded Biohazards project (project duration 2020-2024).
  - The creation of a research network focusing on ILM in coordination with CILSS. As part of this activity, CORAF will support Burkina Faso, a regional frontrunner with advanced technical expertise concerning ILM, in setting up a virtual platform on ILM. Specifically, CORAF will support the INERA, Burkina Faso's designated implementation agency for national-level Subcomponent 2.1 activities, in this exercise. The virtual platform will enable the sharing ILM-related experiences across the region and facilitate the training of scientists and ILM partitioners from agriculture research institutions and extension agents from ECOWAS member states on ILM best practices.
- Strengthen capacity for adaptive national R&D management and networking including through strengthening of human resources and setting up a knowledge hub for underpinning technologies cutting across RCoE and NCoS areas of specialization (e.g., supporting the application and capacity-strengthening related to biotechnology and bioinformatics to underpin crop and livestock improvement and fostering links with advanced institutions in these areas).
  - Allocate funding for the training of PhD and MSc students[6]. CORAF will support West Africa's universities and NCoE/RCoE in financing academic training for PhD and MSc students (4 years for PhD and 18 months for MSc) at the national levels to increase the pool of qualified agricultural

[54] Under the West Africa Agriculture Productivity Program (WAAPP), nine National Centers of Specialization (NCoS) and were established in nine countries (see also appendix 12). Two of the NCoS have upgraded to Regional Centers of Excellence (RCoE) – namely the regional center on Roots and Tubers in Ghana and the center on dry cereals in Senegal.

researchers, particularly in the field of seed systems and plant breeding. Priority will be given to universities in the region except for disciplines that are not locally taught.
  - To enroll PhD-students, CORAF will launch international calls for applications that will be evaluated by its Scientific and Technical Committee (STC).
  - CORAF will provide thesis topics of regional relevance to PhD students such as foresight analysis, project IE and digital agriculture.
  - Design and establish a West Africa Agriculture Innovation Award to recognize and encourage outstanding research and innovation actors across the West Africa agricultural and food research landscape. Based on the evaluation of candidates by an independent selection committee according to pre-determined criteria, the West Africa Agriculture Innovation Award will be awarded to researchers and innovators on a regular basis. FSRF will support CORAF in developing the award concept and preparing its operationalization (including the development of a manual of procedures, a set of criteria underlying the selection of awardees and a related communication strategy).

(b) Deepen and expand regional Research and Development Networking.

CORAF is expected to:

- Facilitate networking between the region's NCoS/RCoE (e.g., via regional meetings, joint planning and implementing activities, trainings, exchange visits, study tours etc.)
- Promote regional linkages with CGIAR centers and International Agricultural Research Institutes (IARIs, i.e., between NCoS/RCoE and specialized CGIAR centers of ARIs) to conduct joint research activities as well as capacity building in synergy with the AICCRA Project (P173398) (e.g., related to the development of a network for application of modern genomic tools).
- Provide R&D grants through existing commissioned agricultural research grant schemes to support NCoS/RCoE in conducting multi-country research to generate innovations that benefit the entire region (R&D grants will be commissioned throughout all three FSRP phases).
  - Encouraging the NCoS/RCoE to prepare joint research proposals, the regional R&D grants will foster the development and implementation of demand-based, adaptive research on themes that (i) reflect user perspectives and are of regional importance; (ii) cut across the areas of specialization of individual NCoS/RCoEs; and (iii) require public-private engagement. Examples of thematic areas include digital agriculture, reduction of post-harvest losses, and soil fertility management.
- The commissioned agricultural research grant scheme providing regional R&D grants is based on established best practices including (i) independent governance; (ii) setting clear priorities involving stakeholders; (iii) rigorous and transparent selection procedures; (iv) identification of target farm populations and plans for transferring and applying research results; and (v) effective results-based M&E. The Scientific and Technical Committee of CORAF will evaluate proposals and project concept notes by ECOWAS member states NCoE/RCoE based on the manual of procedures linked to the governance mechanism of the CORAF commissioned agricultural research grant scheme.
- Launch a policy and regulatory platform aimed at scaling research innovations through fast -tracking public and private investment in biofortification and other nutrition sensitive and productivity enhancing agriculture technologies.

(c) Modernise National Extension Services. Regional-level activities under Subcomponent 2.1 (c) carried out by CORAF include:

- Review countries' agricultural advisory concepts and providing advice on new tools including digital agriculture, innovation platforms along priority value chains, e-extension, and farmer-led extension to upgrade national extension system in partnership with extension services network (RESCAR-AOC).
- Coordination of demand-driven capacity-building programs of extension staff including through training and coaching of facilitators and exchange programs, e.g., on digital extension; inclusion of farmer and private sector organizations.
- Promotion of proven strategies and approaches including Integrated agricultural research for development (IAR4D) as well as farmer, and private sector-led models. CORAF will ensure participation of private-sector and farmer organizations (the Network of Farmers' and Agricultural Producers' Organizations of West Africa (ROPPA, APESS, RBM, AFAO, etc.).

(d) Promote Technology Access and Exchange. Under Subcomponent 2.1(d), CORAF is expected to:

- Foster access to potential agricultural innovations and technologies (seeds of new crop varieties, CSA practices, Integrated Pest Management (IPM), Integrated Soil Fertility Management (ISFM), organic and blended fertilizers facilities, bio-pest control products, etc.) and know-how with relevant NCoS/RCoE, CGIAR centers and other advanced international research centers including by
  - overseeing the upgrading of national seed systems.
  - promoting regional electronic technology exchange platforms.
- Foster the establishment and functioning of value chain innovation platforms (methodology, aggregation of farmers, ToT trainings) including through enhanced inclusion of private-sector actors.

Subcomponent 2.2 Strengthen Regional Food Security through Integrated Landscape Management

2. Under Subcomponent 2.2, CORAF is expected to:

- Coordinate annual technical exchanges at regional level involving national-level project coordinators responsible for implementing C2.2 activities. In addition, CORAF will nominate technical key experts that will support FSRP countries in harmonizing the preparation, methodology and implementation of C2.2 activities.
- Conduct a benchmark study to identify best-practices to promote ILM across the region
- Organize study tours, exchanges of field-level staff on best practices as well as trainings, both across and beyond the region, in the context of activities that will be coordinated by the research network and virtual platform on integrated land management (also see Subcomponent 2.1 (a)).
- Build and maintain partnerships and exchanges with CGIAR centers, IWMI, IFDC, other IARCs and other advanced international research institutions and south-south (e.g., People's Republic of China, Israel, Brazil, etc.) collaborations to avail technologies and know-how to focus countries (whose application and dissemination will be financed through national investments).

Capacity-Building and Learning Agenda

3. With the support of FSRF, CORAF will engage in capacity-building activities to enhance its technical and operational capacities as well as knowledge exchanges with other organizations with relevant subject-matter expertise. Specific measures and activities will, amongst others, include (i) support in conceptualizing and operationalizing an West Africa Agriculture Innovation Award (e.g., though providing technical advice on the development of a manual of procedures and award selection criteria); (ii) capacity-strengthening related to the management of investment projects financed by the World Bank (comprising FM and procurement

requirements as well as the World Bank ESF); (iii) training on best practices related to M&E; and (iv) learning exchanges and workshops with other relevant projects including the AICCRA Project.

Technical Coordination

4. CORAF will build further synergies with some regional organizations as part of Component 2 and the other components of the program that have a large network coverage, including CILSS, IDFDC, AAIN, WACCI, the Agricultural Advisory Services Network (RESCAR-AOC), the Network of Farmers' and Agricultural Producers' Organizations of West Africa (ROPPA, APESS, RBM, AFAO, etc.), the relevant CGIAR Centers and other International Agricultural Research Centers (IARC).

Institutional and Implementation Arrangements

5. CORAF has been mandated by ECOWAS to coordinate the FSRP Component 2 at regional level. It has already demonstrated its capacity to coordinate the implementation of the multi-country WAAPP project and to ensure compliance with the World Bank's fiduciary, safeguards, and reporting requirements. CORAF's Board of Directors will provide strategic orientation and oversight, and for the approval of annual work programs and budgets. Its Scientific and Technical Committee will be responsible for the quality (at entry and during implementation) of the program and its activities. CORAF's Executive Secretariat will be responsible for actual implementation. However, RCoEs will also have a major role in strategic leadership and the definition and supervision of annual work programs that they will specifically approve. In addition to their representative on CORAF's Board of Directors, each RCoE will appoint a CORAF focal person within their relevant department to ensure close coordination and communication with CORAF.

6. CORAF will implement program activities either directly, through sub-contracts with third parties, or through agreements (MoU) with implementing/beneficiary partners (NCoS, RCoE, CGIAR Centers, and IARCs). It will implement its activities in accordance with detailed procedures presented in the PIM.

7. CORAF will be responsible for monitoring program implementation, assessing outcomes and impact level results by: (i) sub-contracting with appropriate regional and international agencies to update studies on the region's progress on agricultural productivity and achievement of set nutrition and gender sensitive targets; (ii) producing an annual consolidated report to be shared with all RCoE and ECOWAS countries; (iii) informing participating countries on a yearly basis on implementation progress and the use of funds transferred from country proceeds along with all relevant documents (including financial statements, audits and progress reports); and (iv) working jointly with national partners, especially governments' national planning departments/units to report and monitor national level progress.

8. CORAF will have an activity aimed at building the capacity of national partners, especially governments national planning units/department, to monitor and report national level progress. For example, countries can be trained on how to integrate nutrition in their national agriculture surveys to assess the production and utilization of nutrient dense crops. This measure can help countries to report their progress on nutrition to the AU biennial review scorecard and AfDB's commitment to nutrition.

9. Within three (3) months from the Effective Date, CORAF will recruit the following additional PIU staff: (i) a program officer; (ii) a procurement specialist; (iii) a M&E specialist; and (iv) an accountant. The CORAF shall also appoint before effectiveness an environment focal point, a social development focal point and a GBV focal point.

10. CORAF will also carry out additional program management activities through country support missions and strategic studies under Subcomponent 2.1.

ANNEX 7: ACTIVITIES IMPLEMENTED ON THE REGIONAL LEVEL BY ECOWAS

Subcomponent 3.1: Facilitate Trade across Key Corridors and Consolidate Food Reserve System

1. Under this subcomponent, FSRP will support the preparation and implementation of regional policies and regulations to increase regional flows of agricultural goods and inputs, and to consolidate the regional food reserve system. ECOWAS will coordinate implementation of Subcomponent 3.1 in collaboration with WAEMU and CILSS. Under FSRP Subcomponent 3.1, ECOWAS will engage in the following activities:

(a) Oversee the development and implementation of the ECOWAS Agriculture Trade and Market (EATM) Scorecard, identifying policy gaps and areas for improvement related to intra-regional agricultural and food trade. While ECOWAS will ensure overall guidance and leadership of activities under C3.1 (a), AKADEMYIA 2063 will support the rollout of the EATM. In the context of Subcomponent 3.1 (a), ECOWAS is expected to:

- Provide guidance and leadership to the technical team developing the methodology of the EATM Scorecard.
- Ensure broad ownership of the Scorecard through establishing the Scorecard taskforce, including relevant regional organisations, e.g., CILSS and CORAF, ECOWAS member states representatives, as well as actors from the private sector, e.g., farmer organisations.
- Host stakeholder conferences to brief about the progress on the Scorecard development process, with the support of AKADEMYIA 2063.
- Organize validation workshops to ensure stakeholder acceptance and adoption of the EATM.
- Ensure that the scorecard is endorsed by the ECOWAS Heads of State as an Instrument of monitoring and reporting on the implementation of the agricultural and food trade policies within the ECOWAS region.
- Strengthen capacity of member states and other stakeholders on implementing the EATM Scorecard through carrying out regional trainings and targeted coaching, with the support of AKADEMYIA 2063.
- Collect, aggregate, and analyse trade data linked to prepare EATM Scorecard reports, with the support of AKADEMYIA 2063.

(b) Strengthen and operationalize the ECOWAS West Africa Rice Observatory (ERO) through enhancing its capacity for coordination, data gathering and regular communication on rice value chain development. ECOWAS will provide a strategic link to national governments and assist in the coordination of joint objectives. In the context of Subcomponent 3.1 (b), ECOWAS is expected to:

- Support the hiring of three experts including the ERO coordinator.
- Support the collection and analysis of data related to investments into rice production.
- Contribute to mobilizing investments into the rice value chains of member states.
- Collaborate closely with the ECOWAS West Africa Rice Observatory Secretariat to review board agendas and recommendations prior to board meetings.
- Support Secretariat in convening and preparing the general assembly as well as organizing member state consultations.
- Host ECOWAS West Africa Rice Observatory Secretariat at ECOWAS Headquarters in Abuja including through providing office space and logistical support.
- Assume a permanent seat on the Board of Directors.
- Co-chair the Markets, Trade and Standards committee.

(c) Stimulate Agricultural Regional Trade Policy Harmonization on Critical Food System Resilience Issues. In the context of Subcomponent 3.1 (c) activities carried out by ECOWAS, to be led by the Interdepartmental Committee for Agriculture and Food, comprise:

- Strengthening regional cooperation on Sanitary and Phytosanitary Standards (SPS) for enhanced food and input trade. To this end, ECOWAS is expected to:
    - Improve harmonised and/or relevant regional legislations.
    - Assist countries in the elaboration of specific cooperation agreements on SPS.
    - Carry out training sessions for regional and national experts on SPS related to strategic regional value chains.
    - Disseminate information on regional SPS policy and legislation to stakeholders (e.g., via awareness campaigns).

- Promoting the implementation of the ECOWAS Trade Liberalization Scheme (ETLS) through supporting harmonized trade control and inspection rules and practices at key border or cross-borders gates for agricultural goods across ECOWAS member states. To this end, ECOWAS is expected to

    - Coordinate and convene regional consultations on trade control and inspection rules/practices.
    - Support the dissemination of trade control and inspection rules/practices.
    - Coordinate regional training sessions on harmonized trade control and inspection rules/practices.
    - Establish a network of inspectors[55] for enhanced information sharing.

- Adapting and disseminating regional legislation, policies and technical requirements related to trade of agricultural goods and inputs. ECOWAS will mobilize a regional expert for supporting the revision and adaptation of existing regional legislation and policies and developing proposals for their harmonization if required. In addition, ECOWAS will conduct awareness-raising and dissemination campaigns as well as regional workshops and trainings to build capacity related to regional legislation, policies, and technical requirements.
- Include biotechnology safety guidelines, regulations and procedures, norms and standards related to the trade of agricultural goods and inputs in the ECOWAS Trade Information System (ECOTIS) through collection or relevant data; validation of documents, and regularly updating and publishing relevant information through ECOTIS.
- Conducting studies on agriculture and food issues of strategic importance (such as trade in agriculture goods and inputs), including through recruiting experts on agricultural good and inputs trade policy and data analysis
- Engage in regular consultations with WAEMU for discussing cross-cutting thematic issues with the Interdepartmental Committee for Agriculture and Food and within the ECOWAS-WAEMU Joint Technical Secretariat.

(d) Support ECOWAS Multi-Stakeholder Policy Dialogue and Consultation. FSRP will support the facilitation capacity of ECOWAS to organize inclusive multi-actor dialogue and consultation mechanisms, negotiations related to continental free-trade area and World Trade Organization (WTO). In the context of Subcomponent 3.1 (d), ECOWAS will support member states in developing a position to international WTO and continental negotiations on agricultural goods and inputs. This will involve:

- Undertaking specific studies; supporting regular consultations with WTO and AU for discussing cross-cutting thematic areas and issues; organizing training at regional levels related to WTO agreements and continental agreements (i.e. on the implementation of the AfCFTA; and participating in international standards setting bodies (codex, IPPC, OIE) and WTO SPS committee meetings.

[55] national and regional

(e) Improve Regional Food Security Reserve Performance. ECOWAS is expected to:

- Support the governance, coordination, and M&E of the Regional Food Reserve initiative by recruiting three to four technical staff members supporting the operation and management of Reserve Management Committee.
- Lead and coordinate the conceptualization and implementation of a financial backstop mechanism funded by the GRiF that ensures that a capital injection occurs in the event of a shock to accelerate utilization and support of the reserve.
    - Under this activity, ECOWAS will, amongst others, engage in data collection, actuarial analysis, and consultations with member states to design and operationalize the mechanism.
    - Establish a TA with support from World Bank and GRiF to support countries in developing and implementing various types of risk transfer solutions at the national level. The technical support unit will provide TA and training workshops to operationalize and build the capacity of the Regional Food Reserve System at national levels.
- Support the first (local and community storage) and second line of defence (national security stocks) of the regional food security reserve system by supporting the implementation of national storage strategies in ECOWAS 15 members states and providing food reserve managers in member states with analytical tools and targeted trainings to strengthen management capacity. The focus will be food safety, especially Aflatoxin detection.

Subcomponent 3.2: Support to Development of Strategic and Regional Value Chains

3. This subcomponent aims at improving smallholders' food and nutritional security through support for up to three priority value chains per participating country, focusing on backward and forward segments of the value chains, with tangible positive impacts on regional market integration, food security and nutrition. ECOWAS will coordinate regional level activities related to Subcomponent 3.2 while ensuring linkages to Subcomponent 3.1. To facilitate the cross-border development of strategic regional value chains ECOWAS under FSRP Subcomponent 3.2, ECOWAS will engage in the following activities:

(a) Improve value-chain organization and financing. ECOWAS is expected to:

- Support the emergence of regional agriculture champions (aggregators or warehouses operators) in key corridors, including by undertaking feasibility studies to demonstrate the potential of regional aggregators of strategic commodities.
- Strengthen capacity of regional interprofessional bodies and apex organizations of strategic regional value chains by: (i) coordinating regional consultations on regional interprofessional bodies of strategic value chains; (ii) supporting the establishment of regional interprofessional bodies of strategic value chains; (iii) supporting the regional inter professional bodies in the preparation of action plans; and (iv) supporting the implementation of regional interprofessional bodies' action plans.
- Strengthen functioning of the ECOAGRIS platform by conducting a performance assessment and improving capacity relating to data collection, analysis, and governance structure in link with CILSS/AGRHYMET (Subcomponent 1.1).

(b) Promote agricultural competitiveness and market infrastructure. In the context of Subcomponent 3.2 (b), ECOWAS is expected to support regional agricultural trade platforms, including electronic platforms and digital traceability systems (e.g., the West Africa Seed Market (WASIX)) with a focus on the availability of seeds relevant to strategic value chains by: (i) recruiting a digital marketing expert to support the development & manage electronic platforms; and (ii) providing TA for developing regional electronic platforms.

(c) Strengthen multi-stakeholder coordination and promote enabling environment for private sector. In the

context of Subcomponent 3.2 (c), ECOWAS is expected to support public-private engagement for promotion, advocacy and investments along regional and strategic agricultural goods and inputs value chains by: (i) supporting regular consultations with the private sector on investment in strategic value chains; (ii) supporting dissemination of key lessons resulting from successful public-private partnership (PPP) initiatives; and (iii) conducting feasibility studies on innovative financing PPP mechanisms to promote investments along the value chains at regional level.

Component 5: Project Management

4. ECOWAS will coordinate program management under Component 5 and delegate technical work under Components 1 and 2 to the mandated organizations; CILSS for Component 1 and CORAF for Component 2. Component 5 will ensure efficient program management and careful tracking of performance and impact. Among other activities, it will support: (i) program management, M&E, and impact assessment; (ii) regular foresight conferences to monitor trends and emerging needs around agriculture and food security (biannual review process with AUC and AGRAA, support to ECOWAP M&E processes); and (iii) training for national and regional counterparts to support the program's analytical work. Each delegated entity (CILSS for Component 1 and CORAF for Component 2) are required to send periodical technical and financial reports to the ECOWAS Commission for the purpose of consolidation of the FSRP reporting.

Capacity Building and learning agenda

5. With the support of FSRF, ECOWAS will engage in capacity-building activities to enhance its technical and operational capacities as well as knowledge exchanges with other organizations with relevant subject-matter expertise. Specific measures and activities will, amongst others, include (i) support in conducting an in-depth capacity gap assessment (covering areas such as governance mechanisms, project and FM, knowledge and information management, IT hard- and software equipment, human resources, M&E practices) and in developing a timebound strategic capacity-strengthening plan to address the identified gaps; (ii) capacity-strengthening related to the management of investment projects financed by the World Bank (comprising FM and procurement requirements as well as the World Bank ESF); (iii) intensive training on best practices related to M&E; (iv) trainings on virtual meeting design and online facilitation techniques, and (v) learning exchanges related to relevant topics such as digital agriculture (e.g. by organizing a workshop with the AICCRA Project and the digital collection of trade data).

Institutional and Implementation Arrangements

6. The RSC under the leadership of ECOWAS will ensure global supervision and oversight of the program. The RSC will bring together the main stakeholders of the program and will meet at least once a year to examine and approve annual work plans and budgets and annual implementation reports, ensure the consistency of program activities with the original vision, and provide strategic directions and make recommendations aimed at ensuring better performance, greater sustainability and impact of the program.

7. ECOWAS, through its Department of Agriculture, Environment and Water Resources, will be responsible for the overall coordination of the implementation of the FSRP. This entails:

(a) Providing political leadership and strategic orientations throughout the implementation of FSRP;
(b) Ensuring good governance;
(c) Regularly monitoring the programme's overall performance and impact;
(d) Delivering consolidated technical and financial reporting;
(e) Ensuring coordination between the different programme's components;
(f) Implementing global communication/visibility and capitalisation/knowledge management strategies;

(g) Ensuring coherent implementation of various interventions with regional policies and the actions of other partners operating in the same field;
(h) Ensuring sustainability of the programme's results, by formulating a post project strategy; and
(i) Ensuring environmental and safeguards measures are implemented.

8. In order to perform the above-mentioned tasks, a regional coordination unit will be formed under the Directorate of Agriculture and Rural Development (DARD) of ECOWAS (based in Abuja/Nigeria). The following experts will be recruited: (i) Program Coordinator; (ii) M&E, capitalization and knowledge management expert; (iii) Communication and visibility expert; (iv) Assistant to coordination; and (v) Environmental safeguards expert, all based in Abuja, Nigeria.

9. The ECOWAS Regional Agency for Food and Agriculture (RAAF/ARAA) based in Togo will be in charge of all the administrative, financial and procurement aspects of the program. For this purpose, ECOWAS will delegate to ARAA the fiduciary implementation of its FSRP grant . The following recruitments will be made at ARAA level : (i) an Administration and finance assistant and (ii) Procurement assistant. In addition, the ECOWAS will appoint an environmental focal point, a social development focal point and a GBV focal point

10. As the component lead of Component 3, ECOWAS will implement program activities either directly, through sub-contracts with third parties, or through agreements (MoU) with implementing/beneficiary partners. It will implement its activities in accordance with detailed procedures satisfactory to IDA conditions and presented in the PIM which is currently being developed. ECOWAS will also carry out additional program management activities through country support missions and strategic studies under Subcomponent 3.1.

11. More details on the implementation arrangements will be provided in the PIM.

ANNEX 8: PROGRAM COSTS OF PHASE I

Table A8.1: Costs and IDA Financing of the Program

Total IDA allocation per country and per subcomponent (US$ million)- Phase I								
Component	Burkina Faso	Mali	Niger	Togo	ECOWAS	CILSS	CORAF	TOTAL
C1. Digital Advisory Services for Agriculture and Food Crisis Prevention and Management	5.3	10.3	10.4	10.0	0.0	8.1	0.0	44.1
C1.1. Upgrading Food Crisis Prevention and Monitoring Systems	1.8	3.4	4.7	4,9	0.0	2.8	0.0	17.6
C1.2. Strengthening Digital Hydromet and Agro-Advisory Services for Farmers	3.5	6.9	5.7	5.1	0.0	5.3	0.0	26.5
C2. Sustainability and Adaptive Capacity of the Food System's Productive Base	52.8	30.3	29.7	47.6	0.0	0.0	8.5	168.9
C2.1. Consolidate Regional Agriculture Innovation System	9.9	5.8	5.8	15.6	0.0	0.0	8.5	45.6
C2.2. Strengthen Regional Food Security through ILM	42.9	24.5	23.9	32.0	0.0	0.0	0.0	123.3
C3. Regional Market Integration and Trade	20.5	15.9	16.0	26.2	5.8	0.0	0.0	84.3
C3.1. Facilitate Trade Across Key Corridors and Consolidate Food Reserve System	8.5	3.6	3.8	5.9	5.8	0.0	0.0	27.6
C3.2. Support to Development of Strategic and Regional Value Chains	12.0	12.3	12.2	20.3	0.0	0.0	0.0	56.8
C4. Contingent Emergency Response Component (CERC)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
C5. Project Management	11.4	3.6	3.9	6.2	4.2	1.9	1.5	32.7
Total	**90**	**60**	**60**	**90**	**10**	**10**	**10**	**330**

ANNEX 9: IMPLEMENTATION SUPPORT PLAN

Strategy and Approach for Implementation Support

1. The objective of implementation support is to ensure that the relevant regional and government agencies implement the program properly. It is also to ensure that the resources and staff allocated by the World Bank are sufficient to supervise and support program implementation. The strategy basically aims at making the implementation support to the Borrower more flexible and efficient, and therefore focuses on the principal risks identified and the agreed risk mitigation measures to be undertaken as described in the in the risk section of this document. It will consist of: (i) semi-annual implementation support missions carried out jointly by the World Bank, the participating countries, ECOWAS, CILSS and CORAF/WECARD, as well as technical partners (CGIAR centers, FAO, etc.) when technical needs arise; and (ii) TA in areas of weaknesses and where new approaches/procedures have been introduced.

2. Objective of implementation support mission. The implementation support and oversight missions will have the combined aim of reviewing the quality of implementation, providing solutions to implementation problems, and assessing the likelihood of achieving the PDO. More specifically, they will: (i) review implementation progress by component (including the level of implementation of recommendations made by former review missions), including institutional development aspects; (ii) provide solutions to implementation problems as they arise; (iii) review the action plan and disbursement programs with the national and regional PIU for the next six months; (iv) review the program's fiduciary aspects, including disbursement and procurement; (v) verify compliance of program activities with the fiduciary agreement and the World Bank's environmental and social safeguard policies; (vi) review case studies and survey results to ascertain results indicators and determine progress toward the PDO with regard to the targets set within the results framework, and assess the quality of implementation; and (vii) review the quality of capacity-building activities, which are crucial for an effective implementation of the program. The missions will combine some field visits whenever feasible; field-based focus group discussions and interactive workshops with stakeholders for feedback; they will also include regional workshops, as well as national workshops to highlight implementation issues, pick up emerging implementation lessons, and share mission recommendations, including agreements on actions moving forward. Reviews of quarterly/annual reports and various studies will also be undertaken. The supervision strategy will use a number of instruments to review progress and respond to implementation issues, including the following:

(a) **Implementation Support missions.** The World Bank task team will conduct joint semi-annual review and implementation support missions with country teams, ECOWAS, CILSS and CORAF to review overall FSRP implementation performance and progress toward the achievement of the PDO. Support from technical partners, such as the CGIAR Centers, FAO and others, will be sought when needed. The semi-annual implementation support missions will be followed by regional "wrap-up meetings" that will bring together national teams, ECOWAS, CILSS, CORAF, RCoE scientists, regional value chains stakeholders and key regional partners to discuss progress made and also serve as a platform for sharing knowledge and building partnerships. The first implementation support mission will be fielded as soon as possible after program effectiveness to provide start-up support through direct and timely feedback on the quality of implementation plans.

(b) **MTR (mid-term review).** An MTR will be carried out midway in the implementation phase. It will include a comprehensive assessment of the progress in achieving FSRP objectives as laid out in the results framework. The MTR will also serve as a platform for revisiting design issues that may require adjustments to ensure satisfactory achievement of the program's objective.

(c) **Other reviews.** Each year, the World Bank and the line ministry in each country will consider the need for additional analytical, advisory, knowledge sharing activities and/or third-party reviews. Such reviews will be planned for over and above the semi-annual implementation support missions.

(d) **Implementation completion.** At the close of the program, each government, ECOWAS, CILSS, CORAF/WECARD, and the World Bank will carry out separate implementation completion reviews to assess the success of the program and draw lessons from its implementation.

(e) **FSRP task team set up**. Arrangements made for the preparation phase will be maintained during implementation support, involving a regional task team leader (TTL), as well as country-based co-TTLs in FSRP countries, and co-TTL from participating Global Practices (DRM, Water and Environment) to the extent possible. The regional TTL will be supported by one operational Analyst. This arrangement will enhance interaction with FSRP countries and improve monitoring of progress. The World Bank is also seeking a possible TF budget to strengthen supervision activities on top of the World Bank budget.

(f) **TA**. Implementation support will include specialized technical support from the World Bank, ECOWAS, CILSS, CORAF and possibly other bilateral/multilateral agencies for critical aspects of the program, including proper FM/procurement and the monitoring of social and environmental safeguards. The objective of the TA will be to help the program teams internalize good practices and resolve implementation bottlenecks, as they are identified during missions. TA will include training workshops to develop core resource skills within implementing units and program teams, helping finalize manuals, and reviewing and advising on ToRs for required studies and technical support missions. Available FAO-World Bank Collaborative Program budget could be considered for FAO participation to program implementation support.

Implementation Support Plan

3. **Focus of support**. The first two years of implementation will need technical support to put in place the specific tools required for activity planning and implementation; the focus will later change to more routine monitoring of progress, troubleshooting, and assessments based on the results framework. Country implementation support missions will be every six months, followed by regional wrap-up workshops to discuss and exchange views on progress, experiences, best practices and challenges for each country. A common rating process will be done at the end of each wrap-up mission.

4. **Technical support**. The implementation support missions will be complemented by regular short visits by individual specialists to follow up on specific thematic issues as needed. The team will also hire consultants to provide technical support to PIUs and implementing agencies. Regional trainings will be provided by the World Bank on key thematic areas such as Safeguards, Procurement, M&E, Gender and MFD. In addition, the FAO Investment Center, ECOWAS, CILSS, CORAF/WECARD, as well as a number of consultants may be mobilized periodically to provide TA to implementing agencies in the form of hands-on training and mentoring.

5. **M&E support**. The World Bank M&E specialist and relevant consultants will provide technical support and organize regional training for the M&E team composed of the ECOWAS M&E officer and the six countries M&E officers.

6. **Fiduciary support**. Fiduciary teams based in each of the four World Bank country offices (procurement and FM specialists) will closely supervise the program's fiduciary management. They will participate in the twice-yearly country implementation support missions and facilitate capacity building for the program’s fiduciary staff. At least once a year, the procurement staff will organize a post review of procurement activities.

7. During implementation support missions, the program FM specialist, based in the country office, will: (i) review the FM systems, including capacity for continued adequacy; (ii) evaluate the quality of the budgets

and implementing agencies' adherence thereto; (iii) review the cycle of transaction recording until the end of report generation; (iv) evaluate the internal control environment, including the internal audit function; (v) review IFRs and/or annual financial statements; (vi) follow-up on ageing of the advance to the designated account (DA); (vii) follow-up on both internal and external audit reports; and (viii) periodically assess the program's compliance with the FM manual as well as the Financing Agreement.

8. On procurement, the World Bank will provide implementation support to the Borrower through a combination of prior and post reviews, procurement training to program staff and relevant implementing agencies, and periodic assessment of the program's compliance with the procurement manual. Implementation support missions will be geared toward: (i) reviewing and updating procurement documents; (ii) providing detailed guidance on the World Bank's Procurement Guidelines; and (iii) monitoring procurement progress against the detailed Procurement Plan. Following the recommendations of the fiduciary assessments of the implementing agencies, and in addition to the prior review supervision to be carried out from World Bank offices, the semiannual supervision missions will include field visits, of which at least one mission will involve post review of procurement actions.

9. **Safeguards.** The World Bank specialists in social and environmental safeguards will have responsibility for supervising safeguard activities. Each year, they will conduct supervision of the program's safeguard activities, participate in regional meetings to discuss findings, and draft action plans to improve implementation.

10. **Main focus of implementation support**. Table A9.1 summarizes the main focus of implementation support during the life of the program.

Table A9.1: Main Focus of Implementation

Time	Focus	Skills Needed
First 12 months	– Project start up – Support to implementation activities (sensitization, community consultations and planning, ownership creation, institution building, strengthening implementation capacity, including M&E) – Guidance on applying safeguard instruments – Development of IE methodology and oversight of baseline survey – Procurement, FM, M&E, and safeguards training of staff at all levels – Establishing coordination mechanisms with complementary projects (PRAPS, Three Borders Project, etc.)	– TTL+ operations officer + Co-TTLs – Agricultural research and extension specialist – Climate information specialist – Value Chain and trade Specialist – Landscape management Specialist – ICT – FM – Procurement – Environment – Social development – Communications – M&E
12-48 months	– Monitoring implementation performance including progress – Review strength of grassroots institutions, quality of participatory processes, and capacity-building initiatives – Review of annual work plans and disbursement schedule – Review quality of quarterly/annual reports, data, and various produced studies – Assess quality of implementation process and data collected – Review of audit reports and IFRs – Review adequacy of the FM system and compliance with FM covenants – Assess quality of safeguards instruments as they are applied	– TTL+ operations officer + Co-TTLs – Agricultural research and extension specialist – Climate information specialist – Value Chain and trade Specialist – Landscape management Specialist – ICT – FM – Procurement – Environment – Social development – Communications – M&E

11. **Skills mix required**. Table A9.2 summarizes the proposed skill mix and number of staff weeks during program implementation. It is anticipated that this will change over time as demand increases.

Table A9.2: Proposed Skill Mix

Skills Needed	Number of Staff Weeks	Number of Trips	Comments
TTL	20	4	Bamako-based
Agr. Research/extension	6	4	FAO CP
Trade Specialist	4	2	FCI
ICT specialist	4	2	Consultant
Operations Analyst	10	2	Washington-based
Country level Co-TTLs	36	18	Country office-based
DRM, Water and Env. Co-TTLs	18	6	Washington based
Procurement specialists	6	2	Country office-based
FM specialists	6	2	Country office–based
Environmental safeguard specialist	2	2	Country office–based
Social safeguard specialist	2	2	Country office-based
M&E specialist	4	2	Region-based
Communication specialist	2	1	Country office–based
Gender specialist	4	2	Region-based

ANNEX 10: ECONOMIC AND FINANCIAL ANALYSIS

1. The EFA demonstrates the economic justification of the first phase of FSRP using the cost-benefit analysis methodology. The EFA focuses (i) on estimating the benefits generated by subcomponent 2.2 *Strengthening of Regional Food Security through ILM* – as the main intervention bloc with the largest budget allocation – and (ii) on the systemic benefits of raised resilience (by estimating climate change induced losses that can be avoided through programs' interventions). (iii) A valuation of environmental benefits – directly included with the GHG accounting exercise (Annex 11) – has also been included in the EFA.

2. FSRP interventions are economically justified, generating an indicative NPV, at 6 percent of the additional benefits of US$244.0 million and an EIRR of 16.5 percent (over a 15-year period and on a budget of US$330 million), not accounting for environmental externalities. These economic results are satisfying, given that several other program benefits (such as better public services for the agricultural sector, improved nutrition, additional spillover effects outside the core intervention areas, etc.) could not be quantified due to limited data availability. Details on the benefits included in the analysis, the methodology and results are presented below.

Identification of benefits

3. Activities financed under FSRP are expected to lead to several benefit streams which were included in the EFA. First, FSRP will lead to *increased agricultural income* through increased productivity and sales. The program is expected to increase agriculture on-farm productivity and on-farm diversification to higher value commodities by introducing improved climate-smart agricultural and ILM practices, accelerated adoption of improved technologies including irrigation and seeds, improved access to productive inputs and agro-weather information for decision making. The program is expected to improve access to regional markets for the participating countries' priority agricultural commodities through improved rural (last-mile) infrastructure, as well as improved access to market price information and decision-support tools delivered via improved Information and Communications Technologies (ICTs) and services. *Second*, the program will invest in activities designed to *enhance climate resilience*, which in turn will contribute to the stability of agricultural incomes and rural livelihoods. Climate change and risk are expected to critically affect program areas – both in terms of yield variability due to slow onset of climate change and in terms of extreme weather events. FSRP's proposed interventions are designed to mitigate the expected shocks through better forecasting and response capacities and through the introduction of climate smart technologies designed to adapt the agricultural production. *Third,* the program will support the *regional integration of agricultural markets, which will further enhance economic development*. In particular, the program is expected to strengthen the institutional environment and policies for regional markets and trade. As such, the program's interventions will contribute to ensuring that the regional agricultural R&D efforts are complemented by sufficient and affordable supply of agricultural inputs. In addition, FSRP will support further integration of food markets, to support the full marketing of the additional agricultural production and to ensure better food availability in times of crisis.

4. Some additional benefit streams were not included in the EFA. These include*, forth*, that the program will result in *increased job creation and youth employment due to improved capacity, skills and market access*: Enhanced access to rural finance, matching grants, skills development and capacity building, business development services for beneficiaries who are interested to provide agricultural services and access to local and regional markets are expected to increase the number of jobs in the farm and non-farm rural economy in the region. *Fifth*, the program is expected to generate *long-term benefits of enhanced human capital through increased nutrition security*. The program contributes to enhance access to improved, nutrient dense food, through promoting nutrition-smart agriculture. *Sixth,* the program will generate *increased positive environmental externalities through ILM* which is expected to enhance several environmental services:

reduction of land degradation and soil erosion, which can positively affect economic operations of upstream and downstream users; reduction of deforestation and other detrimental land use changes due to increased agricultural intensification rather than land expansion; reduction of agricultural pollution in watersheds (e.g. fertilizer and pesticide run-off) and conservation of agro-biodiversity through improved nutrient management; increase in soil carbon sequestration, biomass growth and reduction of greenhouse gas (GHG) emissions. A valuation of environmental benefits – directly with the GHG accounting exercise (Annex 11) – has been included in the EFA and will be further developed as the program design evolves.

Methodology

5. The first part of the EFA consists of the analysis of proposed interventions in Subcomponent 2.2 for each participating country using standard cost-benefit analysis. For each participating country, Subcomponent 2.2 represents the largest building block (between 40 percent and 50 percent) of the budget. Through an ILM approach, the program will invest in certain priority actions such as soil and water conservation, reforestation, water spreading weirs and riverbank protection, irrigation infrastructure and improvement of agricultural practices. The analysis of the costs and benefits of the interventions follows the standard methodology recommended by the World Bank, as described in Gittinger (1982), Belli et al. (2001) and is aligned to the recent guidelines for EFA. Using data from previous World Bank and other partners' EFAs, crop and activity models have been estimated, comparing the with-program situation (WP) with without-program situation (WOP) to determine the additional benefits, while accounting for the supplementary costs. Two production situations have been considered: under irrigation and under rain fed conditions (but with improved land and water management). The choice of indicative crops has been driven by the proposed budgets and the experience of previous investment operations in the respective countries.

6. The parameters considered in the modelling of Subcomponent 2.2, as well as the indicative additional yearly returns per unit, are summarized in Table A10.1. The effects of the other program interventions are included in this modelling, by (i) stable yield increases, due to the introduction and adoption of climate smart technologies; (ii) realization of productivity gains by beneficiaries, due to better extension services; (iii) input availability and use, due to better regional trade in inputs; and (iv) full marketing of agricultural production at stable prices, due to better regional food trade.

Table A10.1: Parameters used in modelling Subcomponent 2.2's Investments

		Burkina Faso		Mali		Niger		Togo	
Irrigated production	ha	1,256		1,000		1,200		1,400	
	US$ /year/ha	Indicative add. yearly returns per ha for specific crop		Indicative add. yearly returns per ha for specific crop		Indicative add. yearly returns per ha for specific crop		Indicative add. yearly returns per ha for specific crop	
		Rice	600	Rice	625	Rice	400	Rice	800
		Horti-culture	3,500	Horti-culture	2,500	Horti-culture	2,500	Horti-culture	3,500
Rain fed production	(ha)	15,000		4,000		4,000		5,100	
	US$/year/ha	Indicative add. yearly returns per ha for specific crop		Indicative add. yearly returns per ha for specific crop		Indicative add. yearly returns per ha for specific crop		Indicative add. yearly returns per ha for specific crop	
		Maize	150	Maize	150	Maize	150	Rice	500
		Cowpea	180						

7. In order to take into account the benefits of other components, which are harder to quantify, the EFA, secondly, includes the impact climate change will have on agricultural yields of priority crops and estimates

the losses that could be avoided through the program's interventions – by using the Climate Adaptation in Rural Development – Assessment Tool (CARD). The analysis has conservatively assumed no productivity gains due to the program interventions; only the preservation of current yield levels in the face of climate change have been included as benefits. These benefits are resulting not only from Component 1 and 2 interventions, but as well from the expected enhanced regional trade and cooperation. The tool used – CARD, developed by IFAD - has been developed as a platform to explore the effects of climate change on the yield of major crops and it is intended to support the quantitative integration of climate-related risks in agricultural and rural development investments and strategies, including EFA. For the analysis, a period of 15 years, starting from a baseline in 2021, has been considered, together with the median climate risk setting and national coverage (i.e. not targeted to a specific agro-ecological zone). The priority crops of rice, maize, sorghum, millet, peas have been included. Their yields are expected to decrease with varying magnitudes due to climate change. To estimate the value of these productivity losses that could be avoided through the program's interventions, the average yearly value of agricultural production for each crop has been obtained from FAOSTAT for the period 2009-2018, as presented in Table A10.2 below. The two estimates – yield losses and production value – have been compounded by year as a conservative, constant estimate for the systemic impacts of the program.

Table A10.2: Average yearly production value for priority crops (constant US$ million, 2009-2018)

(US$ million)	Rice, paddy	Maize	Sorghum	Millet	Cassava	Cow peas
Burkina Faso	142.2	418.7	356.5	238.3	2.3	203.5
Mali	628.3	360.0	288.4	400.5	25.5	66.6
Niger	67.7	10.6	599.9	1,543.1	55.9	234.9
Togo	58.1	208.2	98.9	13.7	201.7	N/A

Economic Results

8. The overall benefits of the program have been aggregated against the program's economic costs. The analysis has been conducted over 15 years (five years of implementation and 10 years of capitalization), in line with profile of investments proposed under the FSRP. The social discount rate has been set at 6 percent, In line with the *Technical Note on Discounting Costs and Benefits in Economic Analysis of World Bank Projects.* For each participating country, the total economic costs have been estimated using the Costab software, by removing all taxes. In addition, the regional economic costs have been calculated and allocated pro-rata as additional costs to each country's calculations. After the program's completion, recurrent economic costs estimated at 10 percent of the average yearly economic costs during implementation have been included, to reflect the need for the continuous delivery of the public services necessary for the realization of the identified benefits (e.g., costs for continuing regional cooperation in agricultural R&D, dissemination of agro-weather information, etc.).

9. Overall, the EFA results indicate that the FSRP interventions as a whole are economically justified, generating an indicative NPV at 6 percent of the additional benefits of US$244.0 million and an EIRR of 16.5 percent (over a 15-year period and on a budget of US$330 million), not accounting for environmental externalities. At country level, the returns on investment vary depending on the respective allocations, with NPVs ranging from US$40.2 million in Niger to US$95.3 million in Burkina Faso, and EIRR from 14.2 percent in Togo to 18.4 percent in Mali (see table A10.3). These economic results are satisfying, given that several other program benefits (such as better public services for the agricultural sector, improved nutrition, additional spillover effects outside the core intervention areas, etc.) could not be quantified due to limited data availability.

Table A10.3: Economic Results of FSRP

		Burkina Faso	Mali	Niger	Togo	Total
NPV , (@6 percent, 15-year)	**(US$ million)**	95.3	53.6	40.2	55.0	**244.0**
EIRR	**(percent)**	18.0%	18.4%	15.6%	14.2%	**16.5%**

10. These economic results are robust when testing several sensitivity scenarios, including reduced outreach or adoption, delays in implementation and cost overruns, as summarized in Table A10.4. Nevertheless, the interplay between these risk scenarios (in particular, lower benefits coupled with delays in implementation) can significantly affect the program's economic justification. The full analysis will include additional risk factors, including input and output price fluctuations, and will investigate the impact of the different shock occurrence profiles.

Table A10.4: Sensitivity Analysis

	NPV @ 6%, 15-y	EIRR
	(US$ million)	(%)
Baseline Scenario	244.0	16.5%
Increased program costs +5%	230.1	15.6%
Increased program costs +10%	216.2	14.8%
Increased program costs +20%	188.4	13.2%
Delayed benefits +1 year	160.2	12.9%
Delayed benefits +2 year	84.4	9.7%
Delayed benefits +3 year	17.1	6.8%
Decreased add. benefits -10%	191.8	14.6%
Decreased add. benefits -20%	139.6	12.5%
Decreased add. benefits -30%	87.4	10.3%

11. The valuation of environmental externalities further enhances the economic justification of FSRP. As presented in Annex 11 (GHG Accounting), the program is estimated to reduce GHG emissions by 110,827 tCO2-e over 15 years. The equivalent yearly environmental benefit of 7,388 t CO2eq has been included in the economic calculations in a phased manner, assuming that its full realisation will follow the gradual implementation of the program (i.e., 100 percent of environmental gains will be achieved in year 5). In line with the World Bank guidelines[56], the GHG emissions results have been valued using the social price of carbon, using the gradually increasing estimates at both low and high ranges. As such, when evaluating these environmental benefits using the social price of carbon estimates, the overall economic results of the program increase to an NPV of US$246.7 million and an EIRR of 16.6 percent (assuming the low range pricing – increasing from 43 US$/tCO2eq in 2022 to 57 US$/tCO2eq in 2036) and to an NPV of US$249.5 million and an EIRR of 16.8 percent (assuming the high range pricing – increasing from 86 US$/tCO2eq in 2022 to 114 US$/tCO2eq in 2036).

56 World Bank *Guidance note on shadow price of carbon in economic analysis* (Nov 2017).

ANNEX 11: GREENHOUSE GAS ACCOUNTING

1. **This annex presents the preliminary GHG accounting for the FSRP.** The present analysis focuses on the four beneficiary countries – Burkina Faso, Mali, Niger and Togo – and estimates the environmental externalities of the main proposed interventions under subcomponent 2.2 *Strengthen of Regional Food Security through ILM* – as the main intervention bloc and largest budget allocation. Directly aligned to the assumptions used in the EFA, this GHG analysis is based on the latest changes in project design, including changes in proposed interventions and their quantification, phasing and budgets. Based on these GHG estimates, a valuation of the estimated environmental benefits has been included in the EFA at this stage.

2. **The environmental externalities of the program were estimated using the EX-ACT tool[57], developed by FAO to provide estimations of the impact of AFOLU** (agriculture, forestry and other land use) **projects and policies on the carbon balance.** The carbon balance is defined as the net balance across all GHGs expressed in CO_2 equivalents (CO_2e) that will be emitted or sequestered due to program implementation (WP), as compared to a business-as-usual scenario (WOP). EX-ACT is a land-based accounting system, estimating CO_2e stock changes (i.e., emissions or sinks of CO_2) expressed in equivalent tons of CO_2 per hectare and year. The tool was designed using mostly data from the Intergovernmental Panel on Climate Change (IPCC) Guidelines for National Greenhouse Gas Inventories (NGGI-IPCC, 2006), which furnishes EX-ACT with recognized default values for emission factors and carbon values in soils and biomass (the so-called "Tier 1 level" of precision).

3. **For FSRP, the GHG accounting calculations were based on each participating countries' characteristics in terms of agro-ecological characteristics (climate, moisture regime and soil type) and of the land use and crop management practices for WP and WOP situations.** The changes expected to result from the program were included in the tool's different modules (in full alignment with the EFA assumptions and budget provisions) and include changes in land use, improvement cropland management options and increased input (fertilizer use) (summarized in Table A11.1 below). A period of 15 years, as for the EFA, was considered, with 5 years of implementation and 10 years of capitalization.

Table A11.1: Key parameters used in Ex-ACT calculations

	Climate	Moisture	Soil type	Land Use Change	Cropland management	Inputs
Burkina Faso	Tropical	Moist	LAC	1,256 ha from annual cropland to flooded rice	15,000 ha (maize, cowpea) with improved management options	Increased fertilizer use
Mali	Tropical	Moist	LAC	1,000 ha from annual cropland to flooded rice	34,000 ha (maize) with improved management options	Increased fertilizer use
Niger	Tropical	Moist	Sandy	1,200 ha from annual cropland to flooded rice	4,800 ha (maize) with improved management options	Increased fertilizer use
Togo	Tropical	Moist	LAC	1,400 ha from annual cropland to flooded rice	5,100 ha (rice) with improved management options	Increased fertilizer use

4. **The GHG accounting results indicate that the FRSP could generate positive environmental externalities, with a total mitigation potential of 110,827 tCO2-e over 15 years.** The results of Ex-ACT analysis are summarized in Table A11.2: in each participating country, the resulting net emissions are negative, as a result of higher reductions (due to improved cropland management and land use changes) than increases (due to introduction of flooded rice production and increased fertilizer use).

[57] The recently launched version 9 of Ex-ACT was used for the present analysis.

Table A11.2: Preliminary GHG accounting results

	Total emissions, tCO2-e	Total emissions, tCO2-e/ha	Total emissions, tCO2-e/ha/yr
Burkina Faso	-54,205	-3.3	-0.2
Mali	-14,247	-2.8	-0.2
Niger	-8,592	-1.4	-0.1
Togo	-33,784	-5.2	-0.3
Total	**-110,827**		

ANNEX 12: COMPLEMENTARITIES BETWEEN FSRP AND OTHER ONGOING INITIATIVES

1. **As a longer-term MPA program, FSRP will serve as a regional platform to create synergies and complementarities with other initiatives across the region.** The main ongoing initiatives and initiatives under preparation are summarized below:

Table A12.1: Complementarities between FSRP and other ongoing Initiatives

Initiative	Country/ organization	Complementarities and synergies with FSRP Components and Subcomponents
Regional Pastoralism Support Project in the Sahel, phase II (PRAPS II) – P173197	Burkina Faso, Chad, Mali, Mauritania, Niger, Senegal / CILSS	**With FSRP Component 1** • Strengthening of CILSS • 1.1 Support to weather forecasting, strengthening of public services involved in disease control
		With FSRP Component 2 • 2.1 Strengthening the capacity to prepare and implement sustainable landscape management plan. • 4.1 Efforts to reduce the particular vulnerability of women and youth to climate change and enhance their resilience to future shocks.
		With FSRP Component 3 • 3.1 To improve pastoral livestock VCs, facilitate regional livestock trade, and improve regional market integration. • 3.1 Small-scale market infrastructure (livestock markets, rest areas) along strategic regional trade routes) rehabilitated and/or constructed and sound governance mechanisms for infrastructures established.
AICCRA Project – P173398	ICRISAT	**With FSRP Component 1** • 1.1 Supporting provision of agro-climate services in West Africa • 2.1 Strengthening partnerships for sustained delivery and use of agro-climatic services in West Africa
		With FSRP Component 2 • 1.1 Contribute to the design of policies to promote uptake of climate smart agriculture (CSA) practices at the regional, sub-regional and national levels • 3.1 Supporting testing and validation (including gender and social inclusion) of CSA technologies in research stations and in farmers' fields; linking of validated CSA technology packages to technology transfer systems; and improving access by farmers and other value chain actors to climate-informed agricultural advisory services so as to inform decision-making about choice of technology and enterprise management
Climate-smart Agriculture Support Project (CASP) – P153420	Niger	**With FSRP Component 1** • Access of decision-makers to improved information in commune level weather forecast and advisory, information delivery to farmer, and weather forecast and crop price information to farmers)
		With FSRP Component 2 • Investment grants allocated to communes for supporting CSA-integrated subprojects (soil fertility and water management for rainfed crops; small- and medium-scale irrigation; consolidation of high potential value chains; improvement of market access; and improved agroforestry NRM
Niger Integrated Water Security Platform Project (P174414)	Niger	**With FSRP Component 1** • **Support to improve hydromet services at national level** **With FSRP Component 2** • **Promoting integrated environment-water-agriculture interventions in priority basin.**
Community-Based	Liptako	**With FSRP Component 2**

Initiative	Country/ organization	Complementarities and synergies with FSRP Components and Subcomponents
Recovery and Stabilization Project for the Sahel P173830	Gourma Region (Burkina Faso, Niger, Mali)	• Stress tolerant crop varieties and resilient cultivation practices, climate-smart agricultural inputs and livestock activities supported • Support to existing and newly formed livelihood and producer groups by financing strategic investments with potential for boosting income generating opportunities
Lome-Ouagadougou-Niamey Economic Corridor - P168386	Togo, Burkina Faso, Niger	**With FSRP Component 3** • Transport corridor development (roads but also trucking and border procedures) has potential to generate important synergies with regional and national trade and value chain promotion activities in Togo, Burkina Faso and Niger, and indirectly Mali.
Sahel Irrigation Initiative Support Project (SIIP) – P154482	Burkina Faso, Chad, Mali, Mauritania, Niger	**With FSRP Component 1** • 3.1 An integrated information & knowledge management system developed (irrigation sector data, data collection and dissemination using ICT); • 3.2 Strengthening of CILSS
		With FSRP Component 2 • 1.1 Diagnostic studies on use of prior land tenure conducted. Surface and groundwater resources assessed. • 2.1 Feasibility studies and environmental and social assessments for medium or large irrigation schemes prepared / updated
Regional Disease Surveillance and Response Project (REDISSE) – P154807		**With FSRP Component 1** • Surveillance and response systems, pest & disease management aspects
		With FSRP Component 3 • Strengthening of ECOWAS
Lake Chad Region Recovery and Development Project – P161706	Chad, Niger, Cameroun	**With FSRP Components 1, 2, 3** • 1. Regional dialogue, data monitoring and dissemination, institutional capacity building and knowledge sharing
		With FSRP Component 3 • 3. Rehabilitation of connectivity network which are of regional importance, including small-scale infrastructure to address immediate priorities for improving rural road connectivity. Component 3 entails the promotion of public productive investments and value-chain development
Africa Hydromet Program (P162600)	15 African countries, 4 regional centers	**With FSRP Component 1** • Transforming observation infrastructure, collecting and interpreting data, and delivering climate services—including high quality weather forecasting—to offer timely and reliable weather and climate forecasts and guidance on impending disaster risks. • Strengthening of CILSS/AGRYMETH
Trade Facilitation West Africa (TFWA) Program (P168111)	West African countries	**With FSRP Component 3** • To improve the free and efficient movement of goods in the region and internationally by reducing the time and cost of trade borne by the private sector in West Africa, and by strengthening regional trading networks' ability to take advantage of these improvements. • Strengthening of ECOWAS
Regional Food and Crisis Prevention Network (RPCA)		**With FSRP Component 1** • International consultation and co-ordination platform focused on the food and nutritional situation in the region • Coordinate efforts to improve the *Cadre Harmonisé* framework.

ANNEX 13: PROCUREMENT ARRANGEMENTS

Procurement

1. Procurement will be carried out in accordance with: (i) the World Bank Procurement Regulations for IPF Borrowers Procurement dated July 2016, revised in November 2017, August 2018 and November 2020; (ii) the 'Guidelines on Preventing and Combating Fraud and Corruption in Projects financed by IBRD Loans and IDA Credits and Grants', dated October 15, 2006, revised in January 2011 and July 2016; and (iii) the provisions stipulated in the Financing Agreements. STEP will be the platform for preparing, submitting, reviewing and clearing procurement plans and prior review procurement activities. STEP will also be used for uploading the documents and evaluation reports for Post Review Contracts. The PIM will elaborate on the procurement procedures, SPDs and model contracts associated with the market approaches and selection methods, for various procurement categories.

Procurement Capacity Assessments Summary

2. **CILSS.** Will coordinate implementation of Component 1. Implementation will be based on a collaboration between the CILSS and partner countries via the Ministries of Agriculture, NMHSs, the national agencies in charge of extension systems, food security, and DRM, inter-agency coordination platforms and both private and academic sectors. The recent procurement capacity assessment of CILSS under PRAPS project has found that it has a procurement unit established within the financial department. CILSS also uses an established manual of procedures, but the procurement procedures are not well described in the manual and most importantly there are no apparent provisions for resolving complaints. The procurement unit is managed by a Procurement Specialist with limited experience in World Bank procurement regulations. However, CILSS has already implemented PRAPS I, and is currently implementing PRAPS II and PARIIS projects governed by the World Bank procurement directives.

3. *Weaknesses and procurement risk*. The main weaknesses identified during the assessment are (i) the limited experience of the procurement staff of CILSS in the World Bank procurement Regulations; and (ii) a lack of acceptable procurement system, including a complaint mechanism.

4. The overall risk for the project is evaluated to be **Substantial.**

5. **ECOWAS.** Will delegate the operational responsibility related to Component 3 to the **ARAA**, its project management specialized institution, which will carry out fiduciary activities on behalf of ECOWAS. The ARAA has limited experience in implementing World Bank funded operations. The recent assessment of the ARAA under PRAPS II did not reveal any major concern except with respect to the provisions compliance with the World Bank anti-corruption policy, the World Bank right to sanction and the World Bank's inspection and audit rights. Their procurement documents (bidding documents, requests for quotations, contracts) shall contain these provisions.

6. **CORAF.** Will implement the regional activities of Subcomponent 2.1 while the participating countries will be responsible for the complementary national investments. At the regional level, CORAF will mobilize TA, organize knowledge management and communication, capacity building, training programs, and manage a competitive regional grant scheme.

7. CORAF is located in Dakar, Senegal and operates in the national environment of procurement in Senegal. CORAF has already implemented satisfactorily World Bank-financed projects such West Africa Agricultural Productivity Program (WAAPP; P122065). A procurement assessment of CORAF was conducted in May 2021. The assessment reviewed the organizational structure and functions, staffing, staff skills, quality and adequacy of supporting and control systems, legal and regulatory framework, recent performance on procurement, the procurement provisions of the existing manual and internal controls. The assessment reveals no major deviation

from World Bank Procurement Regulation. For procurement under the project, the WAEMU eligibility restriction will not apply.

8. The overall risk for procurement (prior to mitigation measures) is considered **Moderate**.

9. **Burkina Faso.** The project will be managed by the same coordination unit as the Agricultural Resilience and Competitiveness Project (PReCA) which will be strengthened to ensure these responsibilities. A procurement assessment was conducted as part of project preparation. It provides evidence that the FSRP will be managed by a single coordination unit of PReCA. The PReCA is staffed by a competitively recruited procurement specialist. For overload reason, it is proposed to competitively recruit another procurement specialist who will be devoted to FRRP. In respect of the new institutional arrangement for projects implementation in Burkina Faso, this procurement specialist will work with the Directorate of Public Procurement (DMP) at MAAH. the Directorate of Public Procurement (DMP) at MAAH has recently recruited new staff; (i) both the existing and new staff have limited qualifications, insufficient procurement skills, and inadequate experience in World Bank procurement procedures; (ii) tender committee members are not trained in the World Bank's new procurement procedures; and (iii) there are significant time delays in the procurement process. The earlier assessments for World Bank projects (PReCA and PARIIS) found a similar situation.

10. The assessment has rated the procurement risk as **Moderate** to the extent that the above constraints are mitigated.

11. **Mali.** The project will be managed by the Agency ATI under the supervision of the Ministry in charge of agriculture. The Agency ATI is currently implementing satisfactorily two projects financed by the World Bank: Mali Drylands Development Project (164052) and Sahel Irrigation Initiative Support Project (P154482). Activities for those projects are similar to FRSP project and the same arrangements shall apply for the FRSP.

12. The procurement assessment reveals (i) lack of classification and archiving of documents and complaint in STEP; (ii) some delays on the contract award and signature process at the Government level; (iii) delays in the elaboration of technical specifications and ToRs; and (iv) need of training for procurement staff on the World Bank's general framework. Additionally, important security concerns occur during contract implementation particularly in the northern and central region of Mali.

13. The overall procurement risk is considered **substantial** prior to mitigation measures.

14. **Niger.** The project will be managed by the same coordination unit as the PARIIS Project under the supervision of the Ministry in charge of agriculture. The procurement capacity assessment reveals (i) the lack of Manual of procedures in line with the World Bank's general framework; (ii) insufficient procurement staff in regard with the increasing workload; (iii) important delays in procurement process mainly at the evaluation phase; and (iv) lack of archiving room and dedicated staff.

15. The overall procurement risk is rated **Substantial.**

16. **Togo.** The project will be managed by the same coordination unit as the PPAAO/PASA Project established within the MAEDR under the responsibility of the General Secretary. Fiduciary functions will be delegated to the Coordinator of the PIU. Since 2011, this coordination unit is implementing the PPAAO/PASA Project satisfactory. The arrangement for PPAAO/PASA shall apply for FRSP.

17. The procurement risk is rated **Substantial** but will be upgraded to **Moderate** to the extent that the mitigation measures are addressed.

18. **Procurement mitigation measures.** To address the various risks identified at both the project and country levels, the mitigation measures described in Table A13.1 will be implemented. The prevailing risk can

be upgraded to moderate, provided the corrective measures mentioned below are implemented.

Table A13.1 Procurement mitigation measures

Agency/ Country	Implementing agency	Procurement mitigation measures	By when
All Recipients	PIU	Update the procurement section manual as part of the PIM to ensure appropriate implementation of activities in line with the World Bank's general framework related to the Project. The manual should describe procurement rules applicable to the Project and a clear accountability system, as well as responsibilities for decision making and describe streamlined procurement procedure when applicable.	By effectiveness
		Adopt World Bank provisions related to environmental, social (including SEA and GBV), health and safety (ESHS) risks and impacts including codes of conduct that include prohibitions against SEA/SH to all works procurements that apply SPDs.	Throughout project implementation
		Train contract staff on the new framework (online and/or in person) and the use of systematic contract exchange tracking tools (STEP), which will be used to manage all contract transactions and related documents Timely archive all procurement documents and complaints in STEP	Throughout project implementation
ECOWAS	ARAA	Ensure that ARAA procurement documents (bidding documents, requests for quotations, contracts) contain provisions compliant with the World Bank anti-corruption policy, the World Bank right to sanction and the World Bank's inspection and audit rights.	Throughout project implementation
		Recruit a procurement assistant to cover FRSP project activities	Three months after effectiveness
CORAF	PIU	Recruit competitively a procurement specialist who will be devoted to the project	Three months after effectiveness
		Train contract staff on the new framework (online and/or in person) and the use of systematic contract exchange tracking tools (STEP), which will be used to manage all contract transactions and related documents	Throughout project implementation
		Update the procurement section manual as part of the PIM to ensure appropriate implementation of activities in line with the World Bank's general framework related to the Project.	By effectiveness
Burkina Faso	PIU	Recruit competitively a procurement specialist who will be devoted to the project	Three months after effectiveness
		Reinforce the procurement capacity by training the DMP, DGCMEF, PIU and the tender committee in World Bank's general framework	During project life
		Make close follow up of the procurement plan	On regular basis
		Update the procurement section manual to ensure appropriate implementation of activities in line with the World Bank's general framework related to the Project. The manual should describe procurement rules applicable to the project and a clear accountability system, as well as and responsibilities for decision	By effectiveness
Mali	PIU	Recruit competitively a procurement specialist for FRSP project	Three months after effectiveness
		Strengthen the procurement capacity by the training the PIU and the tender committee in World Bank's general framework	Three months after effectiveness
		Proactivity in the elaboration of technical specifications and TORs (Hire a consultant to assist when needed).	During project life

		Apply quality assurance of the procurement process including evaluation and contract award in compliance with the procurement manual and make close follow up on processing with contract signature	During project life
		Upload regularly all procurement documents and complaint in STEP	On a regularly basis
Niger	PIU	Update the procurement section manual to ensure appropriate implementation of activities in line with the World Bank's general framework related to the Project. The manual should describe procurement rules applicable to the project and a clear accountability system, as well as and responsibilities for decision	By effectiveness
		Recruit competitively a second procurement assistant who will be devoted to the project and update the TORs for the existing procurement specialist from PARIIS project to cover FRSP activities	Three months after effectiveness
		Update the Decree related to the « création de comités d'experts indépendants » to clarify its modalities aiming to give more autonomy to the PIU for better implementation of the project Apply quality assurance of the procurement process including evaluation and contract award in compliance with the procurement manual	Three months after effectiveness During project life
		Provide enough space for a dedicated room for physical archiving. Set up a filing system at the PIU level to ensure compliance with World Bank procurement filing manual.	Three months after effectiveness
Togo	PIU	Update the procurement section manual in line with the World Bank's general framework	By effectiveness
		Recruit competitively a procurement specialist who will be devoted to the project	Three months after effectiveness
		Reinforce the procurement capacity by the training of the tender committee in line with the World Bank's general framework	Three months after effectiveness

19. Procurement documents. For international competitive procurement for works, goods, non-consulting services, and consulting services, the borrower shall use the World Bank's Standard Procurement Documents with minimum changes, acceptable to the World Bank, as necessary to address any project specific conditions.

20. Procurement information and documentation—filing and database. Procurement information will be recorded and reported as follows:

(a) Complete procurement documentation for each contract, including bidding documents, advertisements, bids received, bid evaluations, letters of acceptance, contract agreements, securities, and related correspondence will be maintained at the level of respective ministries in an orderly manner, readily available for audit;
(b) Contract award information will be promptly recorded and contract rosters, as agreed, will be maintained;
(c) Comprehensive quarterly reports will be prepared indicating (i) revised cost estimates, where applicable, for each contract; (ii) status of ongoing procurement, including a comparison of originally planned and actual dates of the procurement actions, preparation of bidding documents, advertising, bidding, evaluation, contract award, and completion time for each contract; and (iii) updated Procurement Plans, including revised dates, where applicable, for all procurement actions.

21. **General Procurement Notice, Specific Procurement Notices, Requests for Expression of Interest, and results of the evaluation and contracts award** should be published in accordance with advertising provisions in the Procurement Regulations. For request for bids and request for proposals that involve international bidders/consultants, the contract awards shall be published in the United Nations Development Business in line

with the provisions of the Procurement Regulations.

22. **Training, workshops, study tours and conferences**. The training (including training material and support), workshops, and conferences attendance based on individual needs, as well as group requirements, on-the-job training, will be carried out based on an approved annual training and workshop/conference plan that would identify the general framework of training activities for the year. A detailed plan and ToR providing the nature of training/workshop, number of trainees/participants, duration, staff months, timing, and estimated cost will be submitted to IDA for review and approval before initiating the process. The appropriate methods of selection will be derived from the detailed schedule. After the training, each beneficiary will be requested to submit a brief report indicating what skills have been acquired and how these skills will contribute to enhance his/her performance and contribute to the attainment of the PDO. Reports by the trainees, including completion certificate/diploma upon completion of training, shall be provided to the Project Coordinator, will be kept as parts of the records, and will be shared with the World Bank if required.

23. **Procurement Manual**. Procurement arrangements, roles and responsibilities, methods, and requirements for carrying out procurement shall be elaborated in detail in the Procurement Manual, which will be a section of the PIM. The fragility context of countries and the capacity constraints will be considered, and simplified procurement arrangements will be designed accordingly. The PIM shall be prepared by the Recipients and agreed with the World Bank before effectiveness.

24. **Operating costs**. Operating costs financed by the project are incremental expenses, incurred by the PIUs as approved by the World Bank, on account of project implementation, management, and M&E, including utilities, office space rental, office supplies, bank charges, vehicles operation, maintenance and insurance, maintenance of equipment and buildings, communication costs, travel and supervision costs (that is, transport, accommodation, and per diem), and salaries of contracted and temporary staff. They will be procured using the procurement procedures specified in the project's manual of administrative, financial, accounting and procurement procedures accepted and approved by the World Bank.

25. **Procurement Procedures**. When approaching the national market, the country's own procurement procedures may be used with the requirements set forth or referred to in paragraphs 5.3 to 5.6 related to National Procurement Procedures and subject to certain requirements for national open competitive procurement. Other national procurement arrangements (other than national open competitive procurement) that may be applied by the Recipients (such as Limited/Restricted Competitive Bidding, RFQ, Shopping, Local Bidding, and Direct Contracting), shall be consistent with the World Bank's core procurement principles and ensure that the World Bank's Anticorruption Guidelines and Sanctions Framework and contractual remedies set out in its Legal Agreement apply.

26. **Frequency of Procurement Supervision.** In addition to the prior review supervision which will be carried out by the World Bank, semi-annual supervision missions are recommended. Annual World Bank Procurement post review will be conducted in the respective countries by the World Bank Procurement Specialists. The sample size will be based on the procurement risk rating for the Implementing agencies in each country. The prior review procurements will be reviewed and cleared in STEP by the respective country's World Bank Procurement Specialist.

27. **Procurement prior review**. The procurement risk is rated **Substantial**. Table A13.29 summarizes the procurement prior review thresholds for Substantial risk. These thresholds can evolve according to the variation of procurement risk during the life of the project.

Table A13.2 Procurement Prior Review Thresholds (US$, millions) for Substantial Risk

Works	10.0
Goods, information technology, and non-consulting services	2.0
Consulting firms	1.0
Individual consultants	0.3

28. **Contract management and administration.** For all prior review contracts, contract management plans (in line with the provisions of Regulations on its Annex XI) will be developed during contracts creation and completed at the time the contracts are signed.

29. **Summary of the Project Procurement Strategy for Development (PPSD).** The PPSD and the Procurement Plan detailing the first 18 months of implementation have been prepared by the Borrowers and submitted to the World Bank. The initial Procurement Plans were approved by the World Bank during the negotiations. During implementation, the Procurement Plans will be updated as required and at least annually, to reflect actual program implementation needs and improvements in institutional capacity implementation needs.

ANNEX 14: FINANCIAL MANAGEMENT

1. As part of the project preparation, an FM assessment of the proposed PIUs was conducted for Burkina Faso, Mali, Niger, Togo, CILSS, CORAF, and ECOWAS. The objective of the FM assessment was to determine whether the respective selected PIUs have adequate FM arrangements to ensure that: (i) project funds will be used for purposes intended in an efficient and economical way; (ii) the project financial reports will be prepared in an accurate, reliable, and timely manner; (iii) the project's assets will be safeguarded; and (iv) the project is subjected to a satisfactory auditing process.[58] The review of existing FM systems included budgeting, staffing, financial accounting, financial reporting, fund flow and disbursements, and internal and external audit arrangements.

2. **Conclusion.** The conclusion of this assessment is that the FM arrangements in place meet the World Bank's minimum requirements under World Bank Policy IPF, and therefore are adequate to provide, with reasonable assurance, accurate and timely information on the status of the Project required by the World Bank (IDA). **The overall FM residual risk rating is *Moderate* for the implementing agencies in Mali, Niger, Togo, CILSS, and CORAF; *Substantial* for Burkina Faso, and ECOWAS**.

Budgeting Arrangements

3. PIUs of PReCA, PDAZAM, PARIIS, PASA in Burkina Faso, Mali, Niger, and Togo, respectively, CILSS, CORAF, and ECOWAS will each prepare an AWPB in accordance with ToRs acceptable to the World Bank. The entities receiving financial support from the program will submit their budgets to the respective PIUs for consolidation. The AWPB will then be approved by respective national Project Steering Committees (NPSC), and RCSs and submitted to the World Bank not later than November 30 of each calendar year throughout the implementation of the Project.

4. The PIUs will monitor the program's budget execution with the Project accounting software in accordance with the budgeting procedures specified in the FM manuals of procedures, and they will report on variances along with submitting the semi-annual unaudited IFRs. The budgeting system will need to forecast for each fiscal year the origin and use of funds under this program. Only budgeted expenditures will be committed and incurred to ensure that the program's resources are used within the agreed-upon allocations and for the intended purposes. The semi-annual IFRs will be used to monitor the execution of the AWPB.

Accounting Arrangements

5. **Accounting policies and procedures, and information system.** Overall, accounting procedures are adequate for the selected PIUs of Burkina Faso, Mali, Niger, Togo, CILSS, CORAF, and ECOWAS. All the country PIUs in Burkina Faso, Mali, Niger and Togo as well as the regional program implementation units located in CILSS, CORAF, and ECOWAS will utilize a multisite license of their existing accounting software to reflect the needs of the proposed Project. The new accounting software license will be acquired, and the existing accounting system will be customized within three (3) months after effectiveness. Any new accounting staff in each country and regional PIUs will be trained to be conversant with the accounting software.

6. The existing FM Manuals of procedures used for the ongoing or closed IDA financed projects will be updated in Mali, Niger, Togo, CILSS, CORAF, and ECOWAS, and will be included to the PIMs to be adopted prior

[58] The FM assessment was carried out in accordance with the Financial Management Manual for World Bank-Financed Investment Operations effective on the 1st March 2010, and reissued on the 10th of February 2017, and the supporting guidelines.

to the Program effectiveness. The PIU of PReCA in Burkina Faso will prepare a PIM including FM procedures to be adopted, prior to the program effectiveness.

7. Accounting staff. To strengthen the accounting staffing arrangements within the PIUs in Burkina Faso, Mali, Niger, Togo, CILSS, CORAF, and ECOWAS, several actions are recommended. All accounting staff will be trained in the World Bank FM and Disbursement procedures as well as in the use of the project accounting software where needed.

Regional level:

(a) **CILSS:** CILSS has an FM team dedicated to the IDA financed projects currently comprised of one Administration and Finance Officer and one Accountant under the IDA financed PRAPS 1I. Thus, the FM arrangements for FRSP will rely on the ones under PRAPS I. Thus, there is no need to recruit additional staff to handle this program. CILSS will need to revise the ToRs and contracts of the existing FM staff within three months of effectiveness, to include the needs of FRSP.

(b) ***CORAF***: CORAF has qualified and experienced FM staff to be reinforced with one dedicated Accountant who will be competitively recruited within three months after program effectiveness in the perspective of the workload which the new program will generate.

(c) ***ECOWAS***: The FM arrangements for the proposed program will rely on the ones under PRAPS II (P173197). It was agreed ECOWAS would delegate the FM responsibility to ARAA. The current FM team within ARAA is comprised of one Chief of Administration and Finance Division in charge of the supervision of all FM activities, three Accountants, and two Accounting Assistants. Under PRAPS II, an additional accountant to support ARAA FM staff would be recruited by the Project. Thus, for FRSP no additional FM staff will be recruited.

Country level:

(d) ***Burkina Faso***: The current FM team of the PIU of PReCA in Burkina Faso is comprised of one Finance and Administration Officer (labeled in French RAF: Responsable Administratif et Financier), and an Accountant. In addition to those staff, a Senior Accountant and an Accounting Assistant will be recruited within three (3) months, and fully dedicated to FSRP. The PIU of PReCA will need to revise the ToRs and contracts of the existing FM staff to include the activities of this new program, within three (3) months of effectiveness.

(e) ***Mali***: The current FM team within the PIU of PDAZAM in Mali comprises one Administration and Finance Officer, and an Accountant. The PIU of PDAZAM will need to revise the ToRs and contracts of these staff to include the needs of this new program, within three months of effectiveness.

(f) ***Niger***: The current FM team within the PIU of PARIIS in Niger comprises one Finance and Administration Officer (labeled in French RAF: Responsable Administratif et Financier), and a Senior Accountant in the office of Niamey and three accountants in the regions covered by PARIIS. In addition to those staff, three assistant accountants will be recruited on a competitive basis within three (3) months after effectiveness, and fully dedicated to this program. The PIU of PARIIS will need to revise the ToRs and contract of the existing FM Specialist within three months of effectiveness, to allow them to handle the activities of this program.

(g) ***Togo***: The FM team in place within the minister in charge of agriculture which recently implemented PASA is comprised of an Administration and Financial Manager, and three accountants. For the new program, the minister in charge of agriculture in Togo, through the PIU of PASA will recruit an FM specialist based on ToRs acceptable to the World Bank, within three (3) months after effectiveness. The PIU of PASA will need to revise the ToRs and contracts of these staff to include the needs of this new program, within three months of effectiveness.

8. **Accounting standards and basis.** All fiduciary units in Burkina Faso, Mali, Niger, Togo, CILSS, CORAF, and ECOWAS will use the current SYSCOHADA accounting system customized for African francophone countries and in use for the World bank financed projects implemented in these three countries.

Internal Control and Internal Audit Arrangements

9. **Internal controls.** The internal control procedures will be documented in the FM Manuals of procedures for each of the Project implementing unit and their PIMs, taking into consideration gaps in their existing FM Manuals/Regulations to ensure that Project FM arrangements are in line with the FAs. These efforts will ensure that the new program has an effective internal control system covering the procedures required to support activities under different components, including those that will be carried out with subnational and local actors. A review of the internal control systems for the existing national and regional PIUs noted no major internal control or accountability issues.

10. **Internal audit.** Robust internal audit arrangements are in place within the PIUs in Burkina Faso, Mali, Niger, CILSS, CORAF, and ECOWAS. While there are no internal audit functions within the ministry in charge of agriculture in Togo. It was agreed that, within three months after effectiveness, the internal audit function of the PIUs in Burkina Faso and Togo will be strengthened by recruiting a qualified and experienced Assistant Internal Auditor and Internal Auditor respectively, based on ToRs acceptable to the World Bank. In Mali, Niger, CILSS, CORAF, and ECOWAS, no additional Internal Auditor will be recruited. Thus, the PIUs of PDAZAM, and PARIIS in Mali, and Niger respectively, and CILSS, CORAF, and ECOWAS will need to revise the ToRs, contracts, and the annual work plans of the Internal Auditor under the ongoing IDA financed project within three months after effectiveness, to include the needs of this new program. Internal Auditors in each of the implementing entities should ensure that the Project audit is included in their workplan and that the audit is conducted using a risk-based approach. CILSS, CORAF, and ECOWAS[59] will need to include in the annual workplan of their current internal audit team the activities of PSFR within three months of effectiveness.

Governance and Anti-Corruption (GAC) Arrangements

11. All country and regional implementing entities will follow their institutional rules/regulation/ guidelines/policies and procedures. FM arrangements will ensure that there are internal control systems in place and audits conducted to prevent and detect fraud and corruption. Transparency and accountability are highly encouraged by putting the Project budget and audited financial statements on the Project implementing entity's websites where applicable. Complaint-handling mechanisms should also be set up by the PIUs so that beneficiaries who are not receiving services as planned have a mechanism to raise their complaints and ensure that they are followed up and addressed. This will involve putting a system in place to record all complaints received, direct them to the person responsible for addressing them, and record when a response is sent to the complainant. The new program must also comply with the World Bank Anti-Corruption Guidelines. The use of GEMS would be explored for the monitoring of infrastructure contracts, would also provide additional real-time information for internal and external audits.

Financial reporting arrangements

12. The PIUs of PReCA, PDAZAM, PARIIS, and PASA in Burkina Faso, Mali, Niger, and Togo, respectively will prepare semi-annual unaudited IFRs in form and content satisfactory to the World Bank, which will be submitted to the World Bank within 45 days after the end of the semester to which they relate. CILSS, CORAF, and ECOWAS will submit to the World Bank quarterly IFRs not later than 45 days after the end of the calendar quarter. The frequency, formats, and contents of the IFR have been agreed between the World Bank and the national

[59] The Auditor General of ECOWAS performs the internal audit functions for all ECOWAS entities, including ARAA.

implementing entities during negotiations. The contents of the IFR for all implementing entities will include the following information to account for Project funds:

- Statement of Sources and Uses of Funds.
- Statement of Uses of Funds by Project Activity/Component.
- DA Activity Statement.
- Bank statements for both the Designated and Project Account and related bank reconciliation statements.
- Summary statement of DA expenditures for contracts subject to prior review.
- Summary statement of DA expenditures not subject to prior review.

13. The PIUs of PReCA, PDAZAM, PARIIS, and PASA in Burkina Faso, Mali, Niger, and Togo, respectively, CILSS, CORAF and ECOWAS will also prepare annual financial statements for the project within three (3) months after the end of the accounting year (December 31), and these statements will comply with SYSCOHADA and the World Bank requirements. The audited financial statements will be required to be submitted to the World Bank within six (6) months after the end of the fiscal year.

External audit arrangements

14. Burkina Faso, Mali, Niger, Togo, CILSS, CORAF, and ECOWAS will use private audit firms that are acceptable to the World Bank; the Project will meet the cost of hiring a private audit firm. All audits will be carried out in accordance with International Standards on Auditing. ToRs for each implementing entity will be agreed with the World Bank. The external auditors must be appointed within six (6) months of effectiveness. Audit reports for the Project accounts, together with management letters, should be submitted to the World Bank within six (6) months after the end of the government's fiscal year (December 31). The audit reports will be publicly disclosed by the World Bank in accordance with the World Bank disclosure policy. A review of the audit reports of the national and regional PIUs (as documented under the internal control assessment reported above) found no major accountability and internal control issues that needed to be addressed for all the countries and the regional entities. No outstanding audit reports under the IDA ongoing financed project managed by all the implementing entities.

Table A14.1: Auditing Arrangements

S/No	Country / entity	Implementing Entity	Audit Type	Audit Firm	Due Date
1	Burkina Faso	PIU of PReCA	Project Financial Statement	Private Audit Firm	Six (6) months after the end of government fiscal year
2	Mali	PIU of PDAZAM	Project Financial Statement	Private Audit Firm	Six (6) months after the end of government fiscal year
3	Niger	PIU of PARIIS	Project Financial Statement	Private Audit Firm	Six (6) months after the end of government fiscal year
4	Togo	PIU of PASA	Project Financial Statement	Private Audit Firm	Six (6) months after the end of government fiscal year
5	CILSS	CILSS	Project Financial Statement	Private Audit Firm	Not later than June 30 of each calendar year
			Entity's Financial Statements	Private Audit Firm	Once made public
6	CORAF	CORAF	Project Financial Statement	Private Audit Firm	Not later than June 30 of each calendar year
			Entity's Financial Statements	Private Audit Firm	Once made public
7	ECOWAS	ECOWAS	Project Financial Statement	Private Audit Firm	Not later than June 30 of each calendar year
			Entity's Financial Statements	Private Audit Firm	Once made public

15. In line with the World Bank access to information policy, the implementing agencies will be required to make the annual audited financial statements publicly available on its official website. Accordingly, the World Bank will also publish the reports upon receipt.

Funds Flow Arrangements

16. **Designated and Project Accounts.** PIU of PReCA in Burkina Faso will open a DA, denominated in CFAF, at the Central Bank of West African States (Banque Centrale des Etats de l'Afrique de l'Ouest) and a Project Operational Account denominated in local currency. PIUs in Mali, Niger, Togo, and CILSS, CORAF, and ECOWAS will open one DA in a reputable commercial bank acceptable to the World Bank. All the DAs and Project Operational Account (in Burkina Faso) should be opened within one (1) month from the effectiveness. The signatories to these bank accounts should be in line with the FM Manuals of procedures of the respective implementing entities. Payments to eligible expenditure can be made from either the DA in the case of Mali, Niger, Togo, CILSS, CORAF, and ECOWAS or the Project operational account in Burkina Faso.

17. **Disbursements.** All project implementing entities in the four countries (Burkina Faso, Mali, Niger, and Togo) and CILSS, CORAF, and ECOWAS will access funding from the World Bank using the disbursement methods described in the World Bank Disbursement Handbook (that is, advance, direct payment, reimbursement, and special commitments). ECOWAS will transfer funds to ARAA based on a specific agreement. Detailed disbursement procedures will be documented in the FM Manuals of procedures. Upon Credit/Grant effectiveness, each entity will be required to submit a withdrawal application for an initial deposit to the DA, drawn from the IDA Credit/Grant, in an amount to be agreed to in the Disbursement and Financial Information Letter (DFIL). Further deposit of funds from IDA to the DA will be made upon evidence of satisfactory utilization of the advance, reflected in Statements of Expenditure (SOEs). Withdrawal applications must be submitted regularly (at least once a month).

18. If ineligible expenditures are found to have been made from the Designated and/or Project Accounts, the Borrower will be obligated to refund the same. If the DA remains inactive for more than three months, the World Bank may reduce the amount advanced. The World Bank will have the right, as reflected in the terms of the FA, to suspend disbursement of the funds if significant conditions, including reporting requirements, are not complied with. Additional details regarding disbursement will be provided in the DFILs.

Table A14.2: Disbursement Arrangements

S#	Country	Implementing Entity	DA (FCFA/BCEAO)	Other Project Bank Accounts	Supporting documents
1.	Burkina Faso	PIU of PReCA	DA – Central Bank (BCEAO)	Project Operational Account denominated in FCFA /BCEAO in a commercial bank	SOE
3.	Mali	PIU of PDAZAM	DA – Commercial bank		SOE
4.	Niger	PIU of PARIIS	DA – Commercial bank		SOE
5.	Togo	PIU of PASA	DA – Commercial bank		SOE
6.	CILSS	CILSS	DA – Commercial bank		SOE
7.	CORAF	CORAF	DA – Commercial bank		SOE
8.	ECOWAS	ECOWAS	DA – Commercial bank		SOE

Figure A14.1: Flow of Funds Disbursements for Burkina Faso

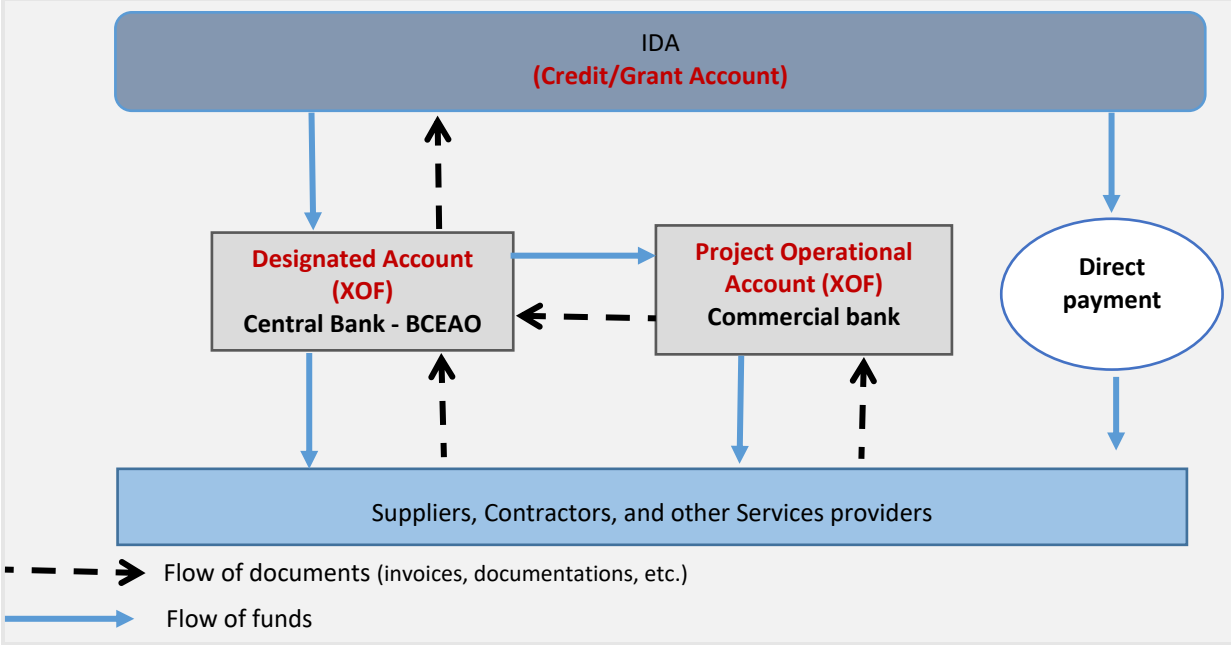


Figure A14.2: Flow of Funds Disbursements for Mali, Niger, Togo, CILSS, CORAF, and ECOWAS

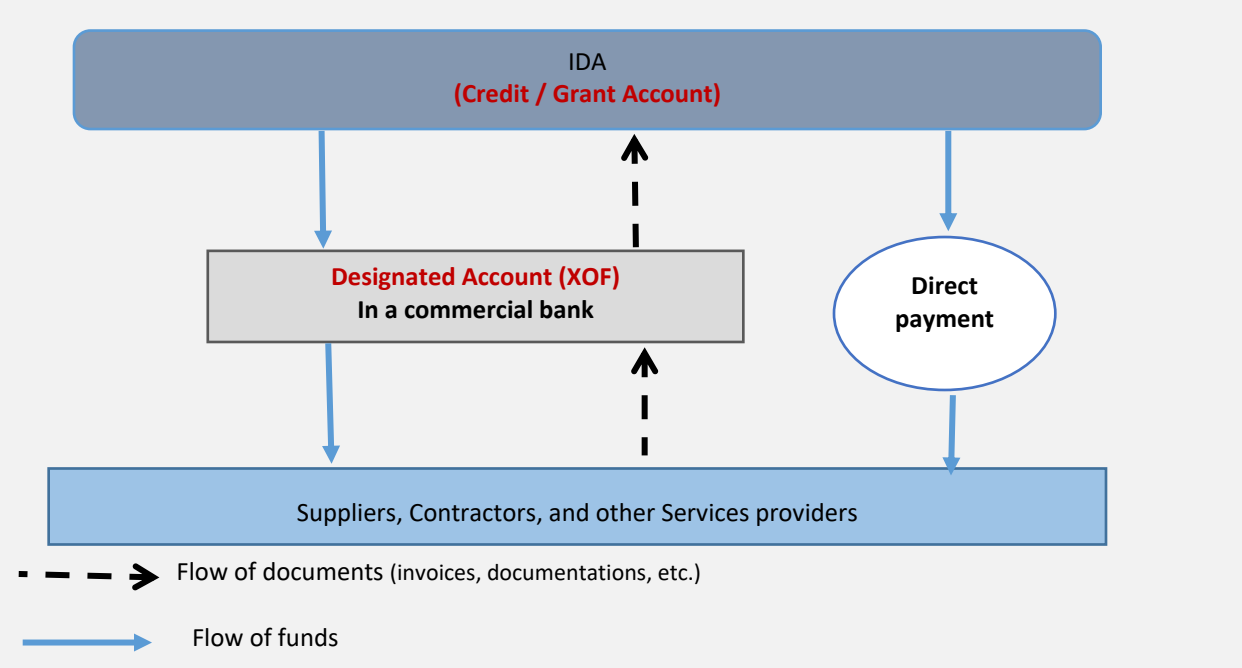


Table A14.4: Financial Management Action Plan

Issue/topic	*Action recommended*	*Responsible body/person*	*Completion status/date*
All countries/CILSS/CORAF/ECOWAS			
Designated and Project Account	Open a DA under terms and conditions acceptable to the World Bank	Respective Government CILSS/CORAF/ECOWAS	Within one (1) month of effectiveness
	Open a Project Account (PA) under terms and conditions acceptable to the World Bank	Respective Government CILSS/CORAF/ECOWAS	Within one (1) month of effectiveness
Information system accounting software	Configure the existing Accounting System parameters to take into consideration the specificities of the new program	Respective Government CILSS/CORAF/ECOWAS	Within three (3) months of effectiveness
External Auditing	Recruit or appoint an External Auditor	Respective Governments	Within six (6) months of effectiveness
Burkina Faso			
Staffing	Maintain existing FM team	Government of Burkina Faso	N/A
	ToRs and contracts of existing FM staff to be updated	Government of Burkina Faso	Within three (3) months of effectiveness
	Recruit a Senior Accountant and an Accounting Assistant based on ToRs acceptable to the WB	Government of Burkina Faso	Within three (3) months of effectiveness
Financial Procedures Manual	Prepare and adopt a PIM including FM procedures	Government of Burkina Faso	By effectiveness
Internal Auditing	Recruit an Assistant Internal Auditor based on ToRs acceptable to the World Bank	Government of Burkina Faso	Within three months after effectiveness
Mali			
Staffing	Maintain existing FM team	Government of Mali	N/A
	ToRs and contracts of existing FM staff to be updated	Government of Mali	Within three (3) months of effectiveness
Financial Procedures Manual	Update the FM manual in use at PDAZAM	Government of Mali	By effectiveness
Internal Auditing	Include program's activities in the current Internal Auditor's annual workplan	Government of Mali	Within three (3) months of effectiveness
Niger			
Staffing	Maintain existing FM team	Government of Niger	N/A
	ToRs and contracts FM Specialist to be updated	Government of Niger	Within three (3) months of effectiveness
	Recruit three Assistant Accountants based on ToRs acceptable to the World Bank	Government of Niger	Within three (3) months of effectiveness
Financial Procedures Manual	Update the FM manual in use at PARIIS	Government of Niger	By effectiveness
Internal Auditing	Include program's activities in the current Internal Auditor's annual workplan	Government of Niger	Within three (3) months of effectiveness
Togo			
Staffing	Maintain existing FM team	Government of Togo	N/A
	ToRs and contracts of existing FM staff to be updated	Government of Togo	Within three (3) months of effectiveness
	Recruit an FM Specialist based on ToRs acceptable to the World Bank	Government of Togo	Within three (3) months of effectiveness
Financial Procedures Manual	Update the existing FM procedures manual	Government of Togo	By effectiveness

Issue/topic	*Action recommended*	*Responsible body/person*	*Completion status/date*
Internal Auditing	Recruit or appoint an Internal Auditor	Government of Togo	Within three (3) months of effectiveness
CILSS			
Staffing	Maintain existing FM team	CILSS	N/A
	ToRs and contracts of existing FM staff to be updated	CILSS	N/A
Financial Procedures Manual	Prepare and adopt an FM manual to be used under the new program	CILSS	By effectiveness
Internal Auditing	Include PSFR activities in the CILSS Internal Auditors' workplan	CILSS	Within three (3) months of effectiveness
CORAF			
Staffing	Maintain existing FM team	CORAF	N/A
	ToRs and contracts of existing FM staff to be updated	CORAF	Within three (3) months of effectiveness
Financial Procedures Manual	Prepare and adopt an FM manual to be used under the new program	CORAF	By effectiveness
Internal Auditing	Include PSFR activities in the CORAF Internal Auditors' workplan	CORAF	Within three (3) months of effectiveness
ECOWAS			
Staffing	Maintain existing FM team	ECOWAS/ARAA	N/A
Financial Procedures Manual	Prepare and adopt an FM manual to be used under the new program	ECOWAS/ARAA	By effectiveness
Internal Auditing	Include PSFR activities in the auditor General's workplan	ECOWAS/ARAA	Within three (3) months of effectiveness

19. Implementation Support Plan. For FM the implementation Support Missions (ISMs) will be carried out twice a year for Burkina Faso, CILSS, and ECOWAS based on the substantial FM residual risk rating. For Mali, Niger, Togo, and CORAF, given that the FM residual risk is rated as Moderate, ISMs for FM will be carried once every 12 months. Implementation support will also include desk reviews, such as the review of IFRs and audit reports. In-depth reviews and forensic reviews may be done where deemed necessary. The FM implementation support will be an integral part of the project's implementation reviews.

Table A14.5: Implementation Support Plan

FM activity	Frequency
Desk reviews	
IFR review	Quarterly/Bi-annual.
Audit report review of the program	Annually.
Review of other relevant information such as interim internal control systems reports	Continuous as they become available.
On-site visits	
Review of overall operation of the FM system	Semi-annually (implementation support mission)
Monitoring of actions taken on issues highlighted in audit reports, auditors' management letters, internal audit, and other reports	As needed, but at least during each implementation support mission.
Transaction reviews (if needed).	As needed.
Capacity-building support	
FM training sessions by World Bank FM team.	During implementation and as needed.

ANNEX 15: GENDER GAP ANALYSIS AND GENDER ACTION PLAN

1. Women make up about half of agricultural labor force in West-Africa for agro-businesses and agro-industries and contribute extensively to food processing and marketing, household nutrition, and natural resource management. The persisting gender inequalities constrain women's productivity and harm the food security and nutrition of women, their families and communities. Ill-devised intervention can have gap-widening impact in the agricultural sector: for example, due to men's greater capacity to control household farm labor resources, it has been observed in Niger that an additional unit of farm labor improves the productivity of men more than that of women. Therefore, to consider how a planned intervention can improve equal economic opportunities, agency and asset ownership of women, it is imperative to try to narrow gender gaps, thereby enhancing development outcomes. Within this section a set of existing gender gaps are presented that the program could directly or indirectly tackle.

Gaps in Access to Assets, Inputs and Services for production and commercialization

2. **Productive resources:** women can mobilize fewer and less efficient productive resources. For example, plot quality (soil quality, location) and size contribute up to 30 percent of productivity gap between male and female farmers, in addition to security of tenure (see below). For inorganic fertilizers, the gender gap in their usage is even wider in Western African countries than elsewhere in SSA. In Burkina Faso 31 percent of female-only households use it as compared to 37 percent for male only and 47 percent for mixed households.[60] The gender gap in use of mechanical equipment is even wider, albeit more in line with the rest of SSA (e.g., in Niger: 2 percent for female-only vs. 4 percent male only and 17 percent for mixed households). In addition, female-managed plots have less frequently intercropping, use of irrigation, and pesticide and fertilizer use.

3. **Quantity of inputs**: women have less access to quality seeds, improved seeds, farm tools and equipment. They have also less access to fertilizers and pesticides. When they have access, their lack of access to training and to improved agricultural techniques also prevent them from using pesticides and fertilizers optimally (in quantity and timing), which both decreases average output and increases crop yield variability. For example, in Mali, men are considered the heads of households and are the managers of farm activities, therefore women have limited control over household income and restricted access to equipment, raw materials, and technologies.

4. **Access to extension services:** lower education levels do not allow women to benefit from extension services as much as men do; putting in practice advice from professional extension service providers require a knowledge of improved farming practices in order to operationalize the advice received. Extension services are sought less often by female farmers. In addition, the means of communication for the delivery of extension services are not favorable to women who have low literacy levels and limited time due to domestic activities.

5. **Land ownership** is particularly rare for women in Western Africa with women representing only 0–10 percent of landholders in half the countries surveyed in the region by FAO and 10–19 percent in the other half.[61] Land ownership is to be interpreted in light of the national legal context, but it plays a role in access to finance and to foreign aid, since eligibility criteria for winning a loan or receiving aid is usually linked to property rights or collateral assets. Even when land is co-owned, men and women traditionally manage their own, separate plot, even if they belong to a single household, with strikingly different conditions and inputs. In Mali, women's access to land tends to be gained through use rights during marriage, with husbands remaining the sole owners of family property. When a husband dies, only 40 percent of widows receive any assets. In Togo, female-headed

[60] FAO, 2018, *Leaving no one behind. Empowering Africa's Rural Women for Zero Hunger and Shared Prosperity*, http://www.fao.org/policy-support/tools-and-publications/resources-details/en/c/1156159/
[61] FAO, 2018, *The Gender Gap in land rights*, http://www.fao.org/3/I8796EN/i8796en.pdf

households have farms that are half the size, on average, as those of male-headed households.

6. Labor availability: African agriculture relies heavily on manual labor from a farmer's household, family or community. But labor dedicated to women-controlled plots and men-controlled plots vary greatly, even in the same household or family. In addition, women spend more time on domestic chores. In Niger, child-care responsibilities significantly reduce women's time available to farm labor. Everywhere in Africa, more than 1.5 hours of household time is dedicated per day to firewood collection, which is predominantly performed by women. In Mali, women spend over three hours per day on domestic chores, compared to 35 minutes for men - and the processing and selling of fish, milk and hides and skins. Adult male labor is more often dedicated to men-controlled fields, even from other households, while women and young labor are for women-controlled plots, which can explain up to a 23 percent of the gender productivity gap.[62] Therefore, it is more appropriate to measure farmer's productivity (and access to factors) at the plot level, so that the productivity gap can be measured as the difference between equivalent plots controlled by men and women. Likewise, women typically own between 15 percent and 25 percent of cattle. The gap is particularly wide for large ruminants: women own about 50 percent less of them.[63]

7. Non-physical production factors: gaps in these covers all aspect of agricultural production such as access to finance, labor, access to extension services, knowledge of improved farming practices, property and ownership rights and access to training (see above and below). The lower access to labor, services, ownership rights and capital in turn impedes the productive use of inputs.

8. Assets and Services for Commercialization: Women face constraints when it comes to access to markets, transportation, higher value markets, role in producing commercial crops, etc. In Niger, female traders are disadvantaged as they are less educated, less involved in associations and business networks, and have less access to productive resources.[64.] Participation in trade associations is generally poor among all surveyed traders with 16 percent of women and 24 percent of men belonging to trade associations. In addition, access to post-harvest processing and storage plays an important role in commercialization and it can easily impede marketability of women produced crops. In Burkina Faso, women not having access to: (i) credit reaches 54.6 percent versus 50.2 percent for men and (ii) assets 70.3 percent versus 68.5 percent for men. In Togo, profits of informal female-operated firms are 62 percent lower than are those of their male counterparts, due largely to differential management practices and access to inputs.

Other Gaps Affecting Women Farmers

9. Access to aid programs: women's difficult access to property rights also impedes the efficiency of international aid programs when eligibility criteria are not gender sensitive. Underrepresented female applications to grants, training programs or subsidies occur when participants are selected based on formal ownership of land, capital, collateral for which women are underrepresented for sociological reasons or even excluded for regulatory reasons. Lack of female participation can also arise when women's attendance to trainings dispensed by men is not socially acceptable, or when practical modalities of participation prevent women from finding hosing for the duration of the program, or when its duration conflict with child-care responsibilities.

10. Entrepreneurship and financial inclusion: the World Bank Enterprise Survey collects data from the manufacture and service industries around the world. In Western Africa, women encompass only 26.1 percent of senior and middle management of positions in these industries, only 13.9 percent of firms have women in

[62] World Bank, 2014, "Levelling the Field: Improving Opportunities for Women Farmers in Africa", *Working Paper*, https://openknowledge.worldbank.org/handle/10986/17790
[63] FAO, 2018, Rural Livelihoods Information System, Statistics Division, Rome
64 Gender and Trade in Africa: Case Study of Niger, Ismael Fofana, Sunday P. Odjo, and Fousseini Traore, 2019

top manager positions, and only 22.4 percent of firms have participation of women in ownership.

11. **Connectivity:** the gender gap in access to mobile internet is pronounced all across SSA at 37 percent[65], with women access at 18 percent. The gender gap in mobile ownership is lower, at 13 percent[66], but persistent (unchanged since 2017). It is particularly an issue as mobile ownership is critical to have access to production and commercialization services such as extension services, market prices, meteorological data and financial services, etc.

12. As a result of all the above gender gaps, the productivity of women farmers is far below that of men. Indeed, the gender gap for productivity is estimated at above 20 percent SSA and reaching up to 66 percent in Niger.[67] In Burkina Faso, women's yields for vegetables and sorghum are respectively 20 percent and 40 percent lower than men.[68] The productivity gap derives from a double challenge faced by women mentioned in the section above; they are disadvantaged in access to production factors (smaller plots, lower quality land, limited access to irrigation, limited access to extension services, less labor, inputs, finance and technology), and their return on those factors are also significantly lower. It is estimated that closing the productivity gap could increase production and consumption by 1.5 to 10 percent and reduce poverty by 1.2 to 13 percent.[69]

13. **Gender gaps in agriculture have strong socio-economic impacts for families and communities.** Women and female-headed households are also at greater risk of living in poverty, with a female-earned income representing between 30 percent and 65 percent of male income.[70] Food losses before consumption are also linked to gender gaps in control and responsibilities along the value chain: 40 percent of the loss occurs at post-harvest and processing stages, where women are predominant and where women's lack of access to technology and equipment is compounded with high schedule constraints.[71] Women are also more prone to being food insecure (25.2 percent) than men (23.7 percent). Based on modeling of three Sub-Saharan countries, it is estimated that closing the productivity gender gap could reduce poverty by as much as 13 percent.[72]

14. In addressing gender gaps, the program has identified concrete gender actions that are embedded in all program components and subcomponents. A detailed gender action plan has been developed (Table A15.1), which identifies concrete gender actions that will be implemented and budgeted for in each country and institutions activity plans. The program will focus on reducing tow gender gaps: (I) access to assets and services in commercialization and (ii) access to new and improved irrigation. The lack of access to irrigation among women farmers significantly undermines women productivity, production (opportunity for multiple cropping seasons), cropping diversity and nutrition. The limited access to assets and services for commercialization significantly undermines women farmers volume and value of agricultural products commercialized.

15. To address women farmers lack of access to irrigation, the program will support the following activities: (i) provide subvention for accessing equipment for women (85 percent; not limited to irrigation); (ii) use geographical targeting of women for land and water catchment restoration; (iii) conduct settlement of women farmers in newly rehabilitated degraded land equipped with irrigation; (iv) set a quota of 60 percent of area under improved and new irrigation for female farmers; (v) develop partnership with the International Water Management Institute to develop gender sensitive technologies; (vi) set a quota of 100 percent women farmers

[65] https://www.gsma.com/mobilefordevelopment/blog/mobile-connectivity-in-sub-saharan-africa-4g-and-3g-connections-overtake-2g-for-the-first-time/
[66] https://www.gsma.com/mobilefordevelopment/wp-content/uploads/2020/05/GSMA-The-Mobile-Gender-Gap-Report-2020.pdf
[67] AfDB, 2016
[68] Study comparing around 4,700 agricultural plots. Udry, C. (1996) & al., "Gender, agricultural production, and the theory of the household", *Journal of Political Economy*, 104
[69] AfDB, 2016
[70] UNDP development indicators series, 2015
[71] Aidoo, Danfoku & Osei-Mensah, 2014
[72] AfDB, 2016

benefiting from small scale communal irrigation investments; (vii) promote solar pumps for irrigation (labour reducing for women farmers); (viii) set a quota of 35 percent of women and youth beneficiaries for small scale private land irrigation investments and 100 percent women farmers benefiting from small scale communal irrigation investments; and (ix) allocation of 1,200 hectares of restored lowland for rice production for women, etc. The quality of access to irrigation and usage of irrigation technologies will also be strengthened by activities supporting better extension services for women, improved access to inputs and technologies as well as better participation in water management committee (see activities in Gender Action Plan). The investments in irrigation will also be an opportunity when feasible to promote irrigation as a multi-use system (MUS) entry-point, under which irrigation systems are redesigned and developed in such a way that non-irrigation uses – both productive and domestic. The access to assets and services for commercialization of women farmers will be enhanced by the fact that the selected value chains have a traditional high presence of women farmers and by: (i) supporting women's cooperatives or women owned SME's/self-employed for commercialization and processing/presentation (packaging); (ii) strengthening cooperatives' gender capacity and women parboiled rice cooperatives; (iii) providing women's access to equipment within cooperatives at reduced cost for selected value-chains; (iv) supporting access to processing and conservation equipment by setting a quota of 35 percent women beneficiaries and by adapting the training curriculum to their needs; (v) setting a quota of 35 percent women beneficiaries for self-employment activities promoting income-generating activities and the establishment of small and medium-sized enterprises in the selected value chains; (vi) conducting skills need assessment for women and youth to provide them with tailored technical trainings (including coaching) for income generating activities in selected value chains; (vii) conducting targeted trainings for women on local products, good hygiene practices, commercialization, HACCPs or the certification process for products in the context of trade; and (viii) upgrading/ constructing physical storage facilities or other related infrastructures in selected value chains.

16. The reduction of the gender gaps will be measured through two indicators: (i) women farmers having access to improved/new irrigation or drainage of services; and (ii) women farmers reached with assets or services to improve commercialization in selected value chains.

17. Table A15.1 below presents the main gender actions of the program[1] per subcomponents and by implementation level (regional and national). The regional gender actions strengthen the gender actions undertaken at the national level and enhance overall gender knowledge sharing at regional level across countries. The national gender actions are tailored to the context of each country.

18. The success of the Gender Action Plan is dependent on Component 5, as it will require: (i) integrating the gender actions within implementation manuals (defining when these actions take place, how and who is responsible); (ii) including the gender actions within the program detailed activity plans with a clear budget allocation for the gender actions and targets; (iii) developing some gender indicators in the overall results chain to be able to track progress (fully integrated and defined in the M&E manual to guide M&E staff); (iv) including gender capacity building activities in the program overall capacity building plan (including for PIU members and for trainings conducted by national and regional organization gender experts); (v) hiring of a gender expert at PIU level dedicated to the program; (vi) integrating gender in overall program evaluation and specific dedicated qualitative evaluation; (vii) developing a communication strategy for the program that include women specificities as well as their needs in the COVID19 context.

Table A15.1: Gender Actions per Component[73]

C1 DIGITAL ADVISORY SERVICES FOR REGIONAL AGRICULTURE AND FOOD CRISIS PREVENTION & MANAGEMENT						
	Implementation Level		**Choice of National Gender Actions**			
	REGIONAL: CILSS Gender Actions	**COUNTRIES: Gender Actions Type**	**BF**	**Mali**	**Niger**	**Togo**
C1.1 Upgrading Regional Food Crisis Prevention & Monitoring Systems	**Focus on gender aspects when strengthening regional institutional capacity for monitoring and delivering information services on food security** by (i) as part of the ad hoc Gender Task Force (*Comité Technique du Cadre Harmonisé*). It includes: (i) assessing the integration of gender aspects in data gathering/analysis/tools in order to propose a specific protocol to accompany countries for the integration of gender activities; (ii) improving conditions and infrastructure (including, if possible, adapted accommodation and childcare) for trainings; (iii) observing quotas for specialized trainings to ensure equal opportunities and to improve capacities in general; and (iv) designating a dedicated gender expert to coordinate knowledge and improvement efforts.	Financing of targeted capacity building and/or usage of quota for women to participate in dedicated trainings			**X**	
		Financing of scholarship program for PhDs and Masters' Degrees on topics focusing on vulnerability and gender		**X**		
	Enhancing integration of gender aspects in pest and disease monitoring and management mechanisms by (i) assessing existing and missing data for gender-related aspects; (ii) assessing gendered roles and responsibilities for monitoring and early diagnosis of pests and diseases for each target value chain and related trainings; (iii) raising awareness to national partners about the different roles of female and male farmers to observe pests and practically enforce disease management and pest control; and (iv) integrating gender aspects in related ToRs and contracts with stakeholders.	Financing of insect traps to ensure services to women farmers.	**X**			
		Conducting an evaluation of phytosanitary capacity and development of capacity building development plan integrating gender aspect	**X**	**X**		
		Raising awareness of public and private service providers about gender constraints in accessing to and using data from hydromet and agromet services, given traditional roles and social-economic factors affecting women	**X**		**X**	
		Enhancing support for women in alerting agencies/animal health professionals to increase their role			**X**	
		Setting a quota of 30 percent of people trained being women: i. To pilot monitoring of crop and crop pests by village phytosanitary brigade members ii. To be included in the phytosanitary database iii. To obtain/use the Fall Armyworm Monitoring and Early Warning System Mobile App		**X**	X	

[73] An X in the matrix marks the link between the gender action and the country implementing it.

		Setting target for reaching 40 percent women beneficiaries adopting integrated - and pest management packages and technologies.			**X**	
C1 DIGITAL ADVISORY SERVICES FOR REGIONAL AGRICULTURE AND FOOD CRISIS PREVENTION & MANAGEMENT						
	Implementation Level		**Choice of National Gender Actions**			
	REGIONAL: CILSS Gender Actions	**COUNTRIES: Gender Actions Type**	**BF**	**Mali**	**Niger**	**Togo**
C1.2: Strengthening Creation and Provision of Digital Advisory Services for Agricultural Producers	Coordinating and guiding efforts (i) to include gender considerations in the delivery of agro-meteorological information to farmers (incl. ICT- and other outreach services, data gathering and dissemination; (ii) Raise awareness of public and private service providers about gender constraints in accessing to and using data from Hydromet and Agromet services, given traditional roles and social-economic factors; (iii) integrate women's roles and perspectives in outreach materials and communications	Developing information tools specifically designed to address women's ICT uptake needs and/or toolkit for e-learning opportunities focusing on women. (For example: information campaign, enrollment and training on good practices to overcome potential participation issues, including gender of trainers, etc.)		**X**	X	**X**
		Financing of scholarship program for PhDs and Masters' Degrees for female meteorologist to improve their skills (it includes supporting research centers identify candidates). (At least 50 percent of female researchers will receive a scholarship)		**X**		
		Setting a quota of 40 percent of women having access to improved meteorological, climate and advisory services out of total beneficiaries			**X**	
		Targeting of messaging/alert services. Improvements on users' or service providers' ends.			**X**	**X**
		Conducting context-specific assessment of lack of access by women of ICTs		**X**		**X**
		Developing women-targeted training and financing of awareness raising events to promote risk mitigation instruments or to build capacity to uptake such solutions		**X**	**X**	**X**
		Tackling women farmers' lack of access to ICT by finding alternative ways such as communal radio or distributed traditional mobiles to reach them	**X**		X	**X**
C2: SUSTAINABILITY AND ADAPTIVE CAPACITY OF THE PRODUCTIVE BASE OF THE FOOD SYSTEM						
	Implementation Level		**Choice of National Gender Actions**			
C 2.1 Consolidate Regional Agriculture Innovation System	**REGIONAL: CORAF Gender Actions**	**COUNTRIES: Gender Actions Type**	**BF**	**Mali**	**Niger**	**Togo**
	Gender Human Resources, Capacity and Knowledge in the Research System Strengthened					
	Supporting capacity building activities at National Centers of Specialization and Regional Centers of Excellence by: (i) developing gender training tools for National Centers of Specialization and Regional	Financing of scholarship program for PhDs and Masters' Degrees targeting female researchers to improve their skills.	**X**	**X**	**X** 50%	**X**

	Centers of Excellence; (ii) developing TOR to support hiring of gender consultant for gender trainings in National Centers of Specialization and Regional Centers of Excellence; (iii) conducting gender trainings of gender focal points of the National Centers of Specialization and Regional Centers of Excellence (it includes training of trainers and can be extended to more staff based on needs); (iv) if necessary provide support to gender focal point during trainings; (v) provide tools to screen technologies for their gender sensitivity; and (vi) finance gender trainings for gender focal point/researchers when they are conducted at the regional level.	Implementing mentorship and leadership program for women researchers to access leadership position in research institutions. Male senior researcher mentor a female researcher to gain leadership skills.	**X**	**X**	**X**	**X**
		Training of male and female researchers on gender in research (bottom-up approach based on women needs, do not harm technologies, understanding of needs and constraints of women farmers, etc.). It also includes refresher trainings. It includes enhanced capacity of higher-level researchers and directors to support more gender responsive research and increase women gender sensitive technologies.	**X**		X	**X**
	Providing gender TA as requested by National Centers of Specialization and Regional Centers of Excellence (such as gender trainings, review of gender guidelines, development of gender tools, on the job training on gender, participation in review of technologies, etc.)	Setting a quota of 50 percent female researcher participants for specific trainings and study tour.			**X**	
	Creating a research gender working group for National Centers of Specialization and Regional Centers of Excellence that meet on-line bi-annually (or as needed). It will be an opportunity for the Gender Focal Points to exchange knowledge, discuss issues, lessons of implementation, etc.	Identifying and training (if needed) of Gender Focal Points for each National Centers of Specialization and Regional Centers of Excellence	**X**	**X**	**X**	**X**
		Organization by research gender focal points of national knowledge sharing events about gender in research institutions.			**X**	
	Technologies Developed and Disseminated for Women Farmers					
	Developing a common definition of gender sensitive technologies with all National Centers of Specialization and Regional Centers of Excellence to better guide researchers and have a common understanding across research institutions of gender technologies (for example a gender sensitive technology is based on women needs, is affordable, labor-reducing, accessible and do not harm women.)	Conducting a stock taking exercise to identify technologies that contributes significantly to women farmers.		**X**	**X**	
	Including at least 1 technology targeting specifically women in Technology Awards	Conducting diagnostic to identify women farmers and women herders needs.			**X**	
	Dedicating one of the commissioned grants for the research regional consortium to developing	Financing of a research subprojects on specific women issues financed 100 percent by the program.			**X**	

	technologies targeting women/solving an issue affecting women farmers.					
	Organize women farmers open days for all Regional Centers of Excellence	Mobilizing/supporting women farmers and women livestock herders to attend open days for Regional Centers of Excellence and other type of agricultural and livestock fair and fora.			**X**	
		Conducting an agricultural technology need assessment of women farmers and youth farmers			**X**	
	Conducting a study to identify the best digital tools for technology adoption (it includes digital tools particularly relevant for women.)				**X**	
	Further building capacity within countries for setting up Innovation Platforms with an emphasis on women integration and participation.	Scaling up of Innovation Platforms (IP) of Agriculture Value Chains and Food Systems. These forums serve as spaces for the informal exchange, learning, sharing, and adoption of agricultural technologies, innovations and best practices among the major food chain players in a given community. It is very inclusive of community members and particularly women.	**X**	**X**	**X**	**X**
	National Extension Strategies and Approaches based on Women Farmers' Constraints and Needs					
	Reviewing of national extension strategy to better integrate women needs and constraints and facilitate gender trainings for extension services.	Updating of the national extension strategy will take into account women farmers constraints for accessing innovative technologies and affordable technologies.				**X**
		Building capacity of all implementers in extension services to improve targeting of women farmers			X	**X**
		Researching of technologies released at subsidized price to women farmers in targeted value chains			X	**X**
C2: SUSTAINABILITY AND ADAPTIVE CAPACITY OF THE PRODUCTIVE BASE OF THE FOOD SYSTEM						
	Implementation Level		**Choice of National Gender Actions**			
CC 2.2 Strengthen Regional Food Security through ILM	**REGIONAL: CORAF Gender Actions**	**COUNTRIES: Gender Actions Type**	**BF**	**Mali**	**Niger**	**Togo**
	Women Farmers' Access to Extension Services, Inputs and Equipment Improved					
	Developing partnership with the International Water Management Institute to Develop Gender Sensitive Technologies	Reviewing of the technologies contributing to women farmers for dissemination through extension services.		**X**	X	
		Using agri-vouchers for subvention of inputs targeting 50 percent of women farmers.	**X**			
		Financing of subsidies for accessing equipment (80 percent subsidy for men and 85 percent for women).	**X**			
		Financing of input subsidies over 50 percent for women farmers.			**X**	
		Financing of subsidies for fertilizers and seeds up to 80 percent for women farmers.	**X**		X	

		Financing of subsidies for fertilizer and seeds up to 90 percent for women farmers.		**X**		
		Financing of subsidies for women farmers to access fertilizers and seeds				**X**
		Increasing number of women extension officers and women community facilitators (contact group) to further disseminate extension messages to women farmers (quota of 40-50 percent).				**X**
		Conducting a training on targeting women as program beneficiaries for all extension services actors				**X**
		Providing free access to seeds for niébé for women farmers.	**X**		X	
		Setting a quota of 50 percent of groups having access to tablets for e-extension dissemination are women groups.				**X**
		Developing micro-video for extension services targeting women to be used on video platforms	**X**			
		Financing of hotline for women farmers seeking advice on inputs and production or hotline where women will have access to advice tailored to their needs.	**X**		**X**	
		Setting a quota of 15 percent of community seeds multiplication groups women farmers			**X**	
		Women Farmers' Access to Rehabilitated and Irrigated Land Increased				
		Geographical targeting of women for land and water catchment restoration.	**X**		X	
		Settling of women farmers in newly rehabilitated degraded land and equipped with irrigation.				**X**
		Setting a quota of at least 60 percent women benefiting from high intensity work for rehabilitation of degraded land			**X**	
		Setting a quota of 30 percent of rehabilitated land allocated to women farmers.	**X**			
		Developing 170 hectares of kitchen garden for women farmers to improve household nutrition	**X**			
		Setting up of vegetables gardens for women farmers to contribute to improved nutrition				**X**
		Allocating 1,200 hectares of restored lowland for rice for women for rice production	**X**			
		Setting a quota of 15 percent of restored floodplains allocated to women farmers and youth (121 hectares) and 30 percent of communal agricultural farms to women farmers, youth and disabled (22 hectares).		**X**		

		Targeting of degraded land for rehabilitation for agricultural productive activities benefiting mostly women agro-pastoralist (it is critical for women when men leave for transhumance with livestock)			**X**	
		Using of participatory approach for planning restoration of degraded land and management for landscape approach (inclusive of all, including women)			**X**	
		Setting a quota of 100 percent women farmers benefiting from small scale communal irrigation investments			**X**	
		Setting a quota of 40 percent of women and youth beneficiaries for small scale private land irrigation investments			**X**	
		Promoting of solar pumps for irrigation, which is labor reducing for women farmers.				**X**
		Promotion of irrigation as multi-use system (MUS) entry-point, under which irrigation systems are redesigned and developed in such a way that non-irrigation uses – both productive and domestic – can be accommodated[2].	**X**			
		Setting a quota of 50 percent women in infrastructures management committees				**X**
C3 MARKET INTEGRATION AND TRADE						
	Implementation Level		**Choice of National Gender Actions**			
	REGIONAL: ECOWAS Gender Actions	**COUNTRIES: Gender Actions Type**	**BF**	**Mali**	**Niger**	**Togo**
3.1: Facilitate Trade along Key Corridors and Consolidate Food Reserve System	Improving agricultural goods and inputs market environment at national and regional level by (i) assessing and integrating the potential gender aspects (i.e. issues preventing women being reached by physical and financial instruments, incl. property rights and other social-economic factors, modalities for information dissemination, criteria for recipients targeting, etc.) of relevant rules, norms and regulations; (ii) building capacity on gender aspects and increase women representation on a regional level in agencies/offices while strengthening ECOWAS (also for example by provision of childcare opportunities when accessing to trainings, networking and capacity development events,); and (iii) preparing checklists/scorecards to report on gender aspects of agri-trade systems);	Targeting of capacity building on norms and quality of agricultural products		**X**	X	
		Upgrading/ construction of physical storage facilities or other related infrastructures	**X**		X	
3.2: Support the Development of Strategic	Mainstreaming of gender when strengthening capacities of national interprofessional bodies and apex organizations of strategic regional value chains	Supporting women's cooperatives or women owned SME's/self-employed women within selected value-chains (BF: cowpea, parboil, tomato, rice; Mali: shallots, onions;	**X**	**X**	**X**	**X**

Regional Value chains	(for example: suggest e-learning/training opportunities specifically designed to women's capacity development needs in inter-professional bodies; support assessment and integration of gender aspects in the implementation of regional inter professional bodies' action plans; highlight existing best practices in PPP)	Niger: milk, cowpea, onions) for commercialization and processing/presentation (packaging), business development etc.				
		Strengthening cooperatives' gender capacity and strengthening of women parboiled rice cooperatives	**X**	**X**		
		Improving women's access to equipment within cooperatives at reduced cost for selected value-chains		**X**		
		Supporting access to processing and conservation equipment by setting a quota of 40 percent women beneficiaries and by adapting the training curriculum to their needs			**X**	
		Setting a quota of 40 percent women beneficiaries for self-employment activities promoting income-generating activities and the establishment of small and medium-sized enterprises			**X**	
		Conducting skills need assessment for women and youth to provide them with tailored technical trainings (including coaching) for income generating activities	**X**		**X**	**X**
		Improving access to land, storage facilities, agricultural inputs and/or commercialization possibilities		**X**		
		Conducting targeted trainings for women on local products, good hygiene practices, commercialization, HACCPs or the certification process for products in the context of trade		**X**	**X**	

ANNEX 16: MAP OF INTERVENTION AREAS OF FSRP PHASE I