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Report No: PAD1196

PROJECT APPRAISAL DOCUMENT
ON A
PROPOSED GRANT FROM THE
GLOBAL AGRICULTURE AND FOOD SECURITY PROGRAM
IN THE AMOUNT OF US\$33.9 MILLION
TO THE
REPUBLIC OF NICARAGUA
FOR A
CARIBBEAN COAST FOOD SECURITY PROJECT

February 10, 2015

Agriculture Global Practice
Central America Country Management Unit
Latin America and the Caribbean Region

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CURRENCY EQUIVALENTS
(Exchange Rate Effective as of January 31, 2015)

Currency Unit = Nicaraguan Córdobas (NIO)
US\$1.00 = NIO 26.74

FISCAL YEAR
January 1 – December 31

ABBREVIATIONS AND ACRONYMS

BMS	Beneficiary Monitoring System
CPS	Country Partnership Strategy
DA	Designated Account
DDS	Dietary Diversity Score
DGAF	General Division of Administration and Finance (<i>División General de Administración y Finanzas</i>)
ERR	Economic Rate of Return
ESIA	Environmental and Social Impact Assessment
ESMF	Environmental and Social Management Framework
FAO	Food and Agriculture Organization of the United Nations
FMA	Financial Management Assessment
GAFSP	Global Agriculture and Food Security Program
GAP	Good Agricultural Practices
GDP	Gross Domestic Product
GHP	Good Hygienic Practices
GMP	Good Manufacturing Practices
GON	Government of Nicaragua (<i>Gobierno de Reconciliación y Unidad Nacional</i>)
IBRD	International Bank for Reconstruction and Development
IDA	International Development Association
IDP	Innovation Development Plan
IFC	International Finance Corporation
IFR	Interim Financial Reports
INIDE	National Institute for Development Information (<i>Instituto Nacional de Información de Desarrollo</i>)
INPESCA	National Fisheries and Aquaculture Institute (<i>Instituto Nacional de Pesca y Acuicultura</i>)
INTA	Nicaraguan Institute of Agricultural Technology (<i>Instituto Nicaragüense de Tecnología Agropecuaria</i>)
IPPF	Indigenous Peoples Planning Framework
IPSA	Food Safety and Animal Health Institute (<i>Instituto de Protección y Sanidad Agropecuaria</i>)
LAC	Latin America and the Caribbean
MAG	Ministry of Agriculture (<i>Ministerio Agropecuario</i>)
MEFCCA	Ministry of Family, Communal, Cooperative and Associative Economy (<i>Ministerio de Economía Familiar, Comunitaria, Cooperativa y Asociativa</i>)
MHCP	Ministry of Finance and Public Credit (<i>Ministerio de Hacienda y Crédito Público</i>)
MINSA	Ministry of Health (<i>Ministerio de Salud</i>)
M&E	Monitoring and Evaluation

NPV	Net Present Value
PDO	Project Development Objective
PNA	National Food Plan (<i>Plan Nacional de Alimentos</i>)
PNDH	National Human Development Plan (<i>Plan Nacional de Desarrollo Humano</i>)
PRORURAL-I	Sector-wide Productive Rural Development Program (<i>Plan Sectorial de Desarrollo Rural - Incluyente</i>)
RACCN	North Caribbean Coast Autonomous Region (<i>Región Autónoma de la Costa Caribe Norte</i>)
RACCS	South Caribbean Coast Autonomous Region (<i>Región Autónoma de la Costa Caribe Sur</i>)
SDCC	Caribbean Coast Development Executive Secretariat (<i>Secretaría de Desarrollo de la Costa Caribe</i>)
SEPA	Procurement Plans Execution System (<i>Sistema de Ejecución de Planes de Adquisiciones</i>)
SIAF	Integrated System for Financial Administration (<i>Sistema Integrado de Administración Financiera</i>)
SISCAE	Government Contracting System (<i>Sistema de Contrataciones del Estado</i>)
SISEVA	PRORURAL-I Monitoring, Evaluation and Learning System (<i>Sistema de Seguimiento, Evaluación y Aprendizaje del PRORURAL-I</i>)
SIGFA	Integrated System for Administrative, Financial, and Audit Management (<i>Sistema Integrado de Gestión Financiera, Administrativa y Auditoría</i>)
SIGRUN	Information System of the Government of Reconciliation and National Unity (<i>Sistema de Información del Gobierno de Reconciliación y Unidad Nacional</i>)
SORT	Systematic Operations Risk-rating Tool
TA	Technical Assistance
TDC	Technological Development Centers
UNICEF	United Nations Children's Fund

Regional Vice President:	Jorge Familiar
Country Director:	J. Humberto Lopez
Senior Global Practice Director:	Juergen Voegelé
Practice Manager:	Laurent Msellati
Task Team Leaders:	Augusto Garcia Barea/ Norman Piccioni

NICARAGUA
Caribbean Coast Food Security Project

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PAD DATA SHEET*Nicaragua**Caribbean Coast Food Security Project (P148809)***PROJECT APPRAISAL DOCUMENT***LATIN AMERICA AND CARIBBEAN**Agriculture Global Practice*

Report No.: PAD1196

Basic Information			
Project ID P148809	EA Category B - Partial Assessment	Team Leader(s) Augusto Garcia Norman Picconi	
Lending Instrument Investment Project Financing	Fragile and/or Capacity Constraints []		
	Financial Intermediaries []		
	Series of Projects []		
Project Implementation Start Date 06-April-2015	Project Implementation End Date 30-Dec-2019		
Expected Effectiveness Date 06-April-2015	Expected Closing Date 30-Dec-2019		
Joint IFC No			
Practice Manager/Manager Laurent Msellati	Senior Global Practice Director Juergen Voegele	Country Director J. Humberto Lopez	Regional Vice President Jorge Familiar
Approval Authority			
Approval Authority: RVP Decision Under the Global Agriculture and Food Security Program (GAFSP), projects are approved by the Regional Vice President			
Borrower: REPUBLIC OF NICARAGUA			
Responsible Agency: Ministry of Family, Communal, Cooperative and Associative Economy (MEFCCA)			
Contact: Telephone No.:	José Benito Aragón 50522558777	Title: Email:	General Director, Cooperation and Projects jaragon@economiafamiliar.gob.ni

Project Financing Data(in USD Million)										
<input type="checkbox"/>	Loan	<input type="checkbox"/>	IDA Grant	<input type="checkbox"/>	Guarantee					
<input type="checkbox"/>	Credit	<input checked="" type="checkbox"/>	Grant	<input type="checkbox"/>	Other					
Total Project Cost:		42.00			Total Bank Financing:		33.90			
Financing Gap:		0.00								
Financing Source					Amount					
Borrower					5.84					
Global Agriculture and Food Security Program					33.90					
LOCAL BENEFICIARIES					2.26					
Total					42.00					
Expected Disbursements (Bank FY in USD Million)										
Fiscal Year	2015	2016	2017	2018	2019	2020				
Annual	0.40	5.00	8.00	10.00	8.00	2.50				
Cumulative	0.40	5.40	13.40	23.40	31.40	33.90				
Institutional Data										
Practice Area (Lead)										
Agriculture										
Contributing Practice Areas										
Cross Cutting Areas										
<input checked="" type="checkbox"/>	Climate Change									
<input type="checkbox"/>	Fragile, Conflict & Violence									
<input checked="" type="checkbox"/>	Gender									
<input type="checkbox"/>	Jobs									
<input type="checkbox"/>	Public Private Partnership									
Sectors / Climate Change										
Sector (Maximum 5 and total % must equal 100)										
Major Sector			Sector		%	Adaptation Co-benefits %		Mitigation Co-benefits %		
Agriculture, fishing, and forestry			General agriculture, fishing and forestry sector		60	25		11		
Industry and trade			Agro-industry, marketing, and trade		20	16		1		
Health and other social services			Health		10	26				

Public Administration, Law, and Justice	Public administration- Agriculture, fishing and forestry	10	56	
Total		100		

I certify that there is no Adaptation and Mitigation Climate Change Co-benefits information applicable to this project.

Themes

Theme (Maximum 5 and total % must equal 100)

Major theme	Theme	%
Financial and private sector development	Micro, Small and Medium Enterprise support	40
Human development	Nutrition and food security	40
Rural development	Rural non-farm income generation	10
Public sector governance	Managing for development results	10
Total		100

Proposed Development Objective(s)

The proposed Project development objective is to enhance food and nutritional security in selected communities of the Caribbean Coast of Nicaragua.

Components

Component Name	Cost (USD Millions)
1. Innovation Development Plans for Strengthening Natural and Non-Natural Resource-Based Productive and Marketing Capacity	26.50
2. Strengthening Service Provision for Sustainable Production, Food Security, and Nutrition	4.10
3. Project Management, Monitoring and Evaluation	3.30

Systematic Operations Risk- Rating Tool (SORT)

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

9. Other	N/A		
OVERALL	High		
Compliance			
Policy			
Does the project depart from the CAS in content or in other significant respects?	Yes []	No [X]	
Does the project require any waivers of Bank policies?	Yes []	No [X]	
Have these been approved by Bank management?	Yes []	No []	
Is approval for any policy waiver sought from the Board?	Yes []	No [X]	
Does the project meet the Regional criteria for readiness for implementation?	Yes [X]	No []	
Safeguard Policies Triggered by the Project			
	Yes	No	
Environmental Assessment OP/BP 4.01	X		
Natural Habitats OP/BP 4.04	X		
Forests OP/BP 4.36	X		
Pest Management OP 4.09	X		
Physical Cultural Resources OP/BP 4.11	X		
Indigenous Peoples OP/BP 4.10	X		
Involuntary Resettlement OP/BP 4.12		X	
Safety of Dams OP/BP 4.37		X	
Projects on International Waterways OP/BP 7.50		X	
Projects in Disputed Areas OP/BP 7.60		X	
Legal Covenants			
Name	Recurrent	Due Date	Frequency
Project Staff		4 months after Effectiveness	
Description of Covenant			
Section I.A.1 of Schedule 2: No later than four (4) months after the Effective Date, the Recipient, through MEFCCA, shall appoint, and thereafter maintain, at the national and at the Caribbean Coast regional levels, at all times during the implementation of the Project, competent personnel required for Project implementation, all with qualifications, experience and terms of reference acceptable to the World Bank.			
Name	Recurrent	Due Date	Frequency
Establishment of Project coordination		4 months after Effectiveness	
Description of Covenant			
Section I.A.2 of Schedule 2: Not later than four (4) months after the Effective Date, the Recipient, through MEFCCA, shall establish, and thereafter operate and maintain, throughout the implementation of the Project, a National Project			

Coordination Committee (“CNCP”) and a Regional Project Coordination Committee (“CRCPs”) in each of the RACCN and RACCS, all headed by the MEFCCA, with functions, responsibilities and sufficient resources, acceptable to the World Bank.

Name	Recurrent	Due Date	Frequency
Subproject Agreements		Before each Innovation Development Plan (IDP)	

Description of Covenant
 Section I.B.1 of Schedule 2: To facilitate the carrying out of Component 1 of the Project, and prior to the carrying out of each IDP Subproject under this component, the Recipient, through MEFCCA, shall enter into an agreement (“Subproject Agreement”) with each Eligible Beneficiary, under terms and conditions acceptable to the World Bank, and as set forth in the Project Operational Manual.

Team Composition

Bank Staff

Name	Role	Title	Unit
Augusto Garcia	Team Leader (ADM Responsible)	Senior Operations Officer	GFADR
Francisco Rodriguez	Procurement Specialist	Senior Procurement Specialist	GGODR
Enrique Antonio Roman	Financial Management Specialist	Financial Management Specialist	GGODR
Claudia Rokx	Team Member	Lead Health Specialist	GHNDR
Eli Weiss	Team Member	Senior Rural Development Specialist	GFADR
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Luz Berania Diaz Rios	Team Member	Senior Agribusiness Specialist	GFADR
Maria Virginia Hormazabal	Team Member	Finance Officer	WFALN
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Norman Bentley Piccioni	Team Member	Senior Rural Development Specialist	GFADR
Sandra Monica Tambucho Perez	Team Member	Senior Finance Officer	WFALN
Sofia De Abreu Ferreira	Counsel	Counsel	LEGEN
Tuuli Johanna Bernardini	Safeguards Specialist	Environmental Specialist	GENDR

Extended Team

Name	Title	Office Phone	Location
Brenda Mendieta-Arroyo	STC - Planning and Budget	50522700000	Managua
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Otoniel Campos	STC - Results Management		Tegucigalpa
Patricia Parera	STC - M&E		Washington, DC

Locations

Country	First Administrative Division	Location	Planned	Actual	Comments
Nicaragua	Atlantico Norte (RACCN)	Waspam	X		
Nicaragua	Atlantico Norte (RACCN)	Waslala	X		
Nicaragua	Atlantico Norte (RACCN)	Siuna	X		
Nicaragua	Atlantico Norte (RACCN)	Puerto Cabezas	X		
Nicaragua	Atlantico Norte (RACCN)	Prinzapolka	X		
Nicaragua	Atlantico Norte (RAAN)	Mulukuku	X		
Nicaragua	Atlantico Norte (RAAN)	Bonanza	X		
Nicaragua	Atlantico Norte (RACCN)	Rosita	X		
Nicaragua	Atlantico Sur (RACCS)	Laguna de Perlas	X		
Nicaragua	Atlantico Sur (RACCS)	La Cruz de Rio Grande	X		
Nicaragua	Atlantico Sur	Kukra Hill	X		

	(RACCS)				
Nicaragua	Atlantico Sur (RACCS)	Paiwas	X		
Nicaragua	Atlantico Sur (RACCS)	Bluefields	X		
Nicaragua	Atlantico Sur (RACCS)	El Tortuguero	X		
Nicaragua	Atlantico Sur (RACCS)	La Desembocadura de Rio Grande	X		

I. STRATEGIC CONTEXT

A. Country Context

1. **Despite improvements in both poverty levels and equality in recent years, Nicaragua remains one of the poorest countries in the Latin America and the Caribbean (LAC) region.**

The country has sustained an annual growth of 3.2 percent of Gross Domestic Product (GDP) over the past years, but its Gross National Income per capita was only US\$1,780 in 2013¹. Approximately, 42.5 percent of the country's 5.9 million inhabitants still live below the poverty line and 14.6 percent live in extreme poverty. During 2005-09, income for the bottom 40 percent grew at 4.8 percent per year – almost five times as fast as income for the population as a whole (1.02 percent), surpassing regional performance for LAC region and for Central America². However, challenges remain on poverty reduction and shared prosperity given that most of the poor live in rural areas (63 percent³), and many in remote communities.

2. **Agriculture remains one of the main drivers of economic growth in Nicaragua.** The agriculture sector represents 21.5 percent of GDP and 32.3 percent of all exports. Agriculture is the single largest employer, with more than 30 percent of the labor force (more than twice the average of 15 percent for LAC region). Foreign direct investment in agriculture and agribusiness in Nicaragua rose from just over US\$8 million in 2008 to over US\$73 million in 2013. Agriculture is the main source of livelihood for 80 percent of rural households and the majority of food and export crops are based on smallholder production.

B. Sectoral and Institutional Context

3. **Low productivity of the main agricultural crops is the primary obstacle to sustaining agricultural growth and ensuring food security.** Despite its potential, agricultural growth is constrained by limited access to assets and inputs, low application of Good Agricultural Practices (GAP), limited access to rural financial services, and lack of effective rural infrastructure. Agricultural growth is also limited by post-harvest losses, weak agribusiness development services, and climate change vulnerability. Agriculture can increase its contribution to the national economy and to poverty reduction, provided that structural challenges are adequately addressed to improve productivity of food and export crops, to encourage diversification and local consumption, and to ensure linkages between agribusiness and smallholder producers.

4. **The Government of Nicaragua (GON) has been implementing a Sector-wide Rural Development Program PRORURAL *Incluyente* (PRORURAL-I) since 2010.** Under the overarching National Human Development Plan 2012-2016 (PNDH), PRORURAL-I is the agricultural sector and food security strategy. The objective of PRORURAL-I is to contribute to equitable human development and capital accumulation of rural Nicaraguan families through the use of sustainable natural resources. PRORURAL-I focuses on low-income smallholders throughout the country and supports: (i) capital asset formation through a combination of grants

¹ Estimate in current US\$ (Atlas Method), World Development Indicators database.

² 4.0% and 0.6% respectively. Source: The World Bank Equity Lab.

³ INIDE, Living Standard Measurement Study (2009) at <http://www.inide.gob.ni/bibliovirtual/publicacion/Informe%20EMNV%202009.pdf>

and loans to strengthen production capacities; (ii) Technical Assistance (TA) to build human capital; (iii) agricultural inputs, agricultural services, and organizational support; and (iv) links with other programs (including the National System of Social Welfare) to improve rural livelihoods, increase food availability, and reduce malnutrition and poverty.

5. **The country's National Food Security Policy emphasizes the production of and access to safe and nutritious food for poor families.** The improvement of nutritional security from an agriculture perspective is a multifaceted issue due to lack of awareness about the integration of nutrition into agriculture decisions and consumption behavior.

6. **Nicaragua has made progress toward reaching the Millennium Development Goals in child health and nutrition, but still lags well behind the regional average.** The prevalence of underweight children under five years of age is 22 percent at the national level and 25.15 percent on average in the Caribbean Coast region, well below the LAC regional average of 3 percent⁴. The prevalence of stunted children under five years of age is 20.2 percent nationally and 27.8 percent on average in the Caribbean Coast area. Stunting ranges from 16.4 to 44.4 percent in the areas targeted by the Project. Only 30.6 percent of children are exclusively breastfed for the first six months of life, an important determinant of early life malnutrition⁵.

7. **The Caribbean Coast is the country's main agricultural frontier.** This area accounts for 43 percent of the national territory, including 35 percent of the cattle, 23 percent of the agricultural area, 72 percent of the forest area, 70 percent of fishery production and 60 percent of the mineral resources. Since 2001, there have been important increases (22.3 percent) in production of staple foods such as beans, but a steady decrease (-21.2 percent) in maize production⁶. The agricultural frontier is expanding as forest land is progressively turned into pastures for low-productivity cattle farming. The country has lost more than 20 percent of its forest cover since 1990; the annual deforestation rate is calculated at about 76,000 ha/year (Reduced Emissions from Deforestation and Forest Degradation proposal, 2013). The Caribbean coastal area has the least amount of paved roads in the country and poor access to electricity.

8. **The Caribbean Coast is culturally diverse and is divided into two autonomous regions,** the *Región Autónoma de la Costa Caribe Norte* (North Caribbean Autonomous Region, RACCN) and the *Región Autónoma de la Costa Caribe Sur* (South Caribbean Autonomous Region, RACCS). The RACCN and RACCS have high poverty levels and incidence of extreme poverty. In the RACCN municipalities targeted by the Project, 77 percent of the population lives in poverty, of which 72 percent are extremely poor and in the RACCS municipalities targeted by the Project, 36 percent of the population lives in poverty, of which 74 percent are extremely poor⁷. These figures exceed those in the Pacific and Central regions, where on average 14.3 and 18.5 percent of population lives in extreme poverty, respectively.

⁴ The Millennium Development Goals Report, UNDP, 2014

⁵ http://www.unicef.org/infobycountry/nicaragua_statistics.html; National Weight and Height Census (INIDE, 2009)

⁶ Nicaragua - National Agricultural Census, INIDE, 2011

⁷ www.inide.gob.ni: The latest and only official data by Municipalities is the Map of Extreme Poverty which uses the information of the 2005 National Population Census and the Unsatisfied Basic Needs Method to estimate poverty levels. More recently, the Living Standards Measurement Survey prepared by INIDE in 2009 calculated a consumption index to estimate that 41.2 percent of rural population in the Caribbean Coast lives in poverty, while 15.4 percent are extremely poor.

9. **The proposed Caribbean Coast Food Security Project will support short- and medium-productivity gains.**⁸ Short-term agricultural production investments will focus on fast-cycle crops such as basic grains and vegetables. Mid-term investments will promote production diversification through perennial crops and the introduction of top-quality seeds and genetic materials, as well as investment in post-harvest storage and agro-processing. Long-term investments will promote agro-forestry systems with locally endemic timber species. Finally, the Project will promote nutrition-sensitive considerations and awareness among producers, ensure self-consumption of high quality nutritious food, in addition to commercialization, and introduce gender-sensitive labor-saving technologies.

10. **GAFSP Project will add value and build on ongoing World Bank-financed Projects.** Since 1992, the World Bank has been a leading partner in helping Nicaragua improve rural development, agriculture, and food security. The proposed operation builds on successful experiences and lessons learned from several World Bank-supported investments in the Caribbean Coast, particularly the series of agricultural technology and land administration Projects, which helped demarcate and title most of the indigenous territories. The Project will also build synergies with other World Bank operations, such as the Improving Community and Family Health Care Services Project, the Sustainable Rural Water Supply and Sanitation Project, the Rural Roads Infrastructure Improvement Project and the Rural Telecom Project.

C. Higher Level Objectives to which the Project Contributes

11. **The proposed grant is aligned with the World Bank Group Country Partnership Strategy (CPS; FY2013-2017) for Nicaragua**⁹. The GAFSP grant was proposed in the CPS to support the second objective focused on raising incomes by sustainably improving productivity, competitiveness, and diversification. The proposed operation will support linking smallholder producers in the Caribbean Coast and Nicaragua's productive frontier, to market-based agriculture. In addition, the Project will help expand and strengthen value chains and increase value added. The CPS gender theme will also be supported through equitable access to Project investments and a specific focus on women as producers and as critical actors in the achievement of nutrition improvements at the household level. The Project is also aligned with the World Bank's twin goals of eradicating extreme poverty and promoting shared prosperity, as the proposed Project targets municipalities in the Caribbean Coast with high levels of poverty and malnutrition.

II. PROJECT DEVELOPMENT OBJECTIVES

A. PDO

12. **The Project Development Objective (PDO) is to enhance food and nutritional security in selected communities of the Caribbean Coast of Nicaragua.**

⁸ In alignment with the government food security policy, under the PNA—one of PRORURAL I components, the contributions of the Project to enhance food and nutrition security will focus on improving food availability and secure access to food through increased productivity of agriculture and to a less extent other non-agriculture rural activities; and improve nutrition security through diversified diet/nutrient intakes, and feeding/caring practices for these vulnerable communities.

⁹ Report No. 69231-NI, discussed by the Executive Directors on November 13, 2012.

B. Project Beneficiaries

13. **The Project will target approximately 246 indigenous, afro-descendants and Mestizo communities in the fifteen municipalities of Puerto Cabezas, Bonanza, Rosita, Waspam, Siuna, Prinzapolka, Waslala, and Mulukuku (RACCN), and Paiwas, Bluefields, Kukra Hill, El Tortuguero, La Desembocadura de Rio Grande, Laguna de Perlas, and La Cruz de Rio Grande (RACCS).** Within these communities the Project will support formal and informal groups of beneficiaries (i.e. cooperatives, producers associations and groups). Beneficiaries will include: male and female small- and medium-size producers (at least 20 percent are women), male and female rural laborers, young adults, and artisanal fishers with no or limited assets and equipment. It is estimated that the Project will support approximately 14,000 families, including 5,000 afro-descendent and indigenous families, and 9,000 Mestizo families.

14. **Targeting methodology.** The fifteen municipalities that the Project will target were selected based on a combination of the level of poverty (from 25.2 percent in Paiwas to 87.4 percent in Desembocadura de Rio Grande), malnutrition (from 16.4 percent in Puerto Cabezas to 44.4 percent in La Cruz de Rio Grande),¹⁰ agricultural potential,¹¹ and the lack of coverage by similar Projects. The same criteria (poverty, malnutrition, agricultural or non-farm potential, and equitable geographic coverage) will guide the selection of the communities at the intra-municipal level.

C. PDO Level Results Indicators

15. **The key expected PDO indicators are:** (i) Clients who have adopted an improved agricultural technology promoted by the Project; (ii) Increased agricultural/livestock productivity among all direct beneficiaries; and (iii) Increase in Dietary Diversity Score (DDS) for women and children of direct beneficiary families.

III. PROJECT DESCRIPTION

A. Project Components

16. **Component 1: Innovation Development Plans for Strengthening Natural and Non-Natural Resource-Based Productive and Marketing Capacity (US\$31.85 million, GAFSP Grant US\$26.50 million).** This component will enhance the productive and marketing capacities of farmers and rural enterprises by supporting the participatory design of Innovation Development Plans (IDPs), and financing their implementation. These IDPs will support formal and informal groups of beneficiaries (i.e. cooperatives, producers associations) to achieve improvements and innovations in production, and consolidate market opportunities. The beneficiary mobilization and design of the IDPs, and the types of IDPs to be financed are briefly described below. Annex 2 provides further details.

17. **Beneficiary mobilization and design of IDPs.** The Ministry of Family, Communal, Cooperative, and Associative Economy's (MEFCCA) will identify and mobilize eligible

¹⁰ National Weight and Height Census (INIDE, 2009)

¹¹ A Study prepared by International Food Policy Research Institute (2012)

beneficiaries through local consultations and promote the participatory design of IDP investments by the beneficiary groups. The MEFCCA's technical staff in three field offices across the Project area will support the preparation of IDPs, which will include, whenever possible, other local development partners (i.e. other public institutions in the agriculture and fishery sectors, municipalities, local universities, farmers' organizations, technical service providers) according to technical criteria described in the Project Operational Manual. IDP proposals will be reviewed by the IDP Technical Revision Committees (see Annex 3), and approved by MEFCCA Authority. The activities will include: (i) communication and dissemination campaigns in targeted areas; (ii) technical support for the design of IDP proposals, including rapid and participatory value-chain assessments and territorial diagnostics; (iii) the provision of training to officials of eligible municipalities and technical service providers on critical areas of IDP preparation, implementation and monitoring; (iv) financial, social, environmental and technical assessments associated with IDP investments; (v) strengthening organizational and business capacities of producer groups, communities and small rural producer organizations as well as broad activities fostering smallholder linkages to markets; and (vi) the mobilization of TA for sanitary and phytosanitary surveillance/services required to support the IDPs during the production and processing stages. The process to prepare, review, approve, and implement the IDPs is summarized in Annex 3 and will be described in the Project Operational Manual.

18. **Typology of IDPs.** The IDPs will receive Project financing to cover investments for natural and non-natural resource-based activities and services with nutrition considerations. Natural resource-based IDPs will focus on the promotion of sustainable production, processing and/or commercialization improvements and innovations around family agriculture (including livestock) and artisanal fisheries. Non-natural resource-based IDPs¹² will support innovative small and micro family and community enterprises and will strengthen their capacity to access markets and self-employment opportunities, emphasizing opportunities for women and young adults. The specific targeting and eligibility criteria for each IDP category are included in the Operational Manual, reflecting the particularities of the target groups and the different types of support. Four types of IDPs will be supported by the Project:

(i) **Family agriculture** (including livestock). These IDPs will seek to improve productivity that is diversified and climate smart.¹³ A mix of short-, medium- and long-term investment models will be supported (short term: vegetables and food crops; medium term: diversification through perennial crops; long term: agro-forestry/silvopastoral systems). Producers will be supported in the purchase and use of quality inputs (e.g. certified or improved seed/seedlings), the purchase of equipment and the adoption of good production/management practices and technologies (e.g. storage). For producers with commercialization potential, market linkages will also be supported.

(ii) **Artisanal fisheries** (and aquaculture). These IDPs will support improvements in production through financial and technical support to small-scale fisheries. The Project will finance the acquisition of equipment and boats suitable for small-scale fisheries; it will facilitate access to fishing supplies and seed capital. It will also support the adoption of environmental

¹² Microenterprises providing services in natural resource-based sectors (e.g. eco-tourism) will also be supported, if opportunities are identified.

¹³ Climate-smart agriculture sustainably increases productivity, resilience (adaptation), reduces/removes Green House Gases (mitigation), and enhances achievement of national food security and development goals (FAO, 2010).

management practices; it will fund activities to add value to the production and encourage the establishment of partnerships between processing plants and beneficiary families.

(iii) *Agricultural/agro-industrial ventures.* These IDPs will focus on supporting agricultural/agro-industrial ventures from organizations of producers seeking to improve processes of value addition at the farm and collective level (selection, cleaning, washing, etc.) and fostering market linkages (partnerships/agreements with buyers).

(iv) *Non-agricultural microenterprises.* These IDPs will support gender-sensitive TA and training for production, marketing, business and environmental management, and investments in equipment/supplies needed to strengthen the productive capacity of microenterprises.

19. Component 2: Strengthening Service Provision for Sustainable Production, Food Security, and Nutrition (US\$6.42 million, GAFSP Grant US\$4.10 million). This component will strengthen sectoral capacities for the provision of services in support to IDP beneficiaries in two broad areas:

(i) *Technology generation/validation and transfer.* These activities will improve productivity and quality of agriculture production. The component will therefore enhance the institutional capacity of the Nicaraguan Institute of Agricultural Technology (INTA) to generate/validate and transfer sustainable technologies, encourage methodologies to support demand-driven approaches and farmer-to-farmer exchanges, and promote the adoption of sustainable production technologies and practices. The main activities include: (i) rehabilitation of two INTA Technological Development Centers in the Caribbean Coast and (ii) training of technical professionals and local lead producers (promoters) to support technology transfer to farmers benefiting from the IDPs.

(ii) *Nutritional education and communication and nutrition-sensitive agriculture.* These activities will promote nutritional education and communication for diversified production and consumption. The component will finance nutritional education and communication activities that will promote improved feeding and food handling practices with specific emphasis on pregnant and breastfeeding women and children. Activities related to nutritional education and behavior change communication¹⁴ will aim to raise awareness and knowledge about nutrition and the role of agriculture in improving nutrition outcomes, ensuring that appropriate channels are used to reach out to both women and men.

20. Component 3: Project Management, Monitoring and Evaluation (US\$3.73 million, GAFSP Grant US\$3.30 million). This component will finance incremental and operating costs, equipment and goods for the MEFFCA, including a comprehensive Monitoring and Evaluation (M&E) system. Activities will include Project reporting, monitoring and evaluation with gender-differentiated aspects (monitoring IDPs, baseline, final evaluation, and rapid impact evaluation), financial management (including Project audits) and procurement.

B. Project Financing

¹⁴ Behavior change communication is an approach to behavior change focused on communication to help individuals and communities select and practice behavior that will positively improve their health, such as immunization, checkups, etc.

21. This is an Investment Project Financing, with a total cost of US\$42.00 million, financed by a US\$33.9 million GAFSP grant, US\$5.84 million by GON, and US\$2.26 million in beneficiary contribution (in-kind)¹⁵.

Table 1. Project Financing

Project Components	Project costs (US\$)	GAFSP	GON	Beneficiary Contribution	% GAFSP Financing
1. Innovation Dev. Plans	31.85	26.50	3.09	2.26	84
2. Strengthening serv. provision	6.42	4.10	2.32		64
3. Project management, M&E	3.73	3.30	0.43		90
Total Project Costs	42.00				
Total Financing Required		33.90	5.84	2.26	

C. Lessons Learned and Reflected in the Project Design

22. The Project design incorporates lessons learned and evidence-based studies from ongoing Bank- and donor-funded Projects in Nicaragua, particularly in the PRORURAL-I program, similar GAFSP-Projects in Honduras, Nepal and Bangladesh, and in the LAC region more generally.

Lesson	Key Design Feature
Improved geographic targeting is key to reach regions with agricultural profit potential, low productivity, and high poverty and malnutrition rates.	Following these criteria, the Project is targeting communities in 15 municipalities of the Caribbean Coast.
Link agricultural development initiatives with nutrition. The promotion of a diverse diet ensures that increased income and food availability are translated into better nutrition for the whole household.	Component 2 will increase awareness of nutrition and promote the local production and consumption of a diversified high quality diet. The Project will integrate nutrition in agricultural production and marketing (aligned with Component 1).
GAP. Integrate good agricultural practices (certified and improved seeds, soil management, organic fertilizers, integrated systems for pest and disease management, irrigation, water catchment, TA) to increase yields.	The Project will include support for agricultural inputs, technology adoption and good management and production practices within the context of the IDPs, including principles of climate-smart agriculture. The Project will support investments for the use of top quality seeds and genetic materials, as well as those targeting improvements at the level of post-harvest management and storage and agro-processing.
Value Chain. Value-added agriculture is widely viewed as the best prospect for long term, broad-based economic growth, and poverty reduction. The need for reduction in post-harvest losses is essential.	The value chain approach will be a strategic tool to diversify and complement actions in the short-, medium- and long-term. The Project will strengthen the market linkages for organized producers, and will improve their position in the value chain by strengthening production and market capacities as well as facilitating access to key services and inputs.
Capacity building. Farmers are becoming increasingly dependent on other entrepreneurs for services, inputs, tools, marketing and processing. The capacity of these other entities is crucial for successful agricultural development.	Capacity building activities are the core of the Project. Capacity building applies to individual farmers, farmers' groups/organizations, and agrarian institutions and businesses that support them.

¹⁵ GoN counterpart funds will finance operational costs, as well as technical and administrative staff in MEFCCA's offices, including three Delegations in the Caribbean Coast, and the Directorate of Family Agriculture and other fiduciary Units at MEFCCA's headquarters. Beneficiary contribution would cover the "in kind" contribution to the co-financing of the IDPs.

Lesson	Key Design Feature
Diversification. Successful poverty reduction in rural areas is linked to the ability of the poor to diversify and complement their on-farm income through off-farm activities.	The IDPs will provide a means for beneficiaries to generate income and where farming is limited due to weather or eroded soil conditions, opportunities will be created to generate income through off-farm activities.
Gender inclusion Given the different needs, roles and responsibilities of women and men in rural households, a gender assessment should be carried out to ensure effective service delivery.	In order to ensure that both women and men benefit equally from the planned activities, a qualitative gender assessment will be carried out to ensure the design and implementation of activities under this Project will meet the needs of a broad and diverse range of beneficiaries and that such activities will not broaden or deepen gender gaps further.
Nutrition (food consumption) promotion. The right quality and quantity of food is necessary, but insufficient to achieve nutritional security. Food security also requires improving dietary habits.	The Project will emphasize not only production but also consumption of an adequate diet for all age groups, with particular attention to women’s role in consumption decisions.
Nutrition Indicator baseline data; Often baselines for nutrition indicators are well-intended but late executed resulting in lost opportunities to demonstrate results.	The Project is aware of this and will make every effort to ensure baseline will be conducted timely. In addition, a plan B is foreseen using existing DDS data, albeit slightly out of date (2008) and for another region. The methodology for collecting DDS, recalling groups of food consumption, also is more likely to allow adjustments at a later stage, compared to more traditional nutrition indicator surveys, such as for stunting rates.
Monitoring and Evaluation. A baseline and country-led M&E systems are central to the promotion of development effectiveness.	The Project will support a robust country-led M&E system with a baseline to provide information, monitoring, a “learning” function and assess impact.

IV. IMPLEMENTATION

A. Institutional and Implementation Arrangements

23. **Implementing agency.** The proposed Project will be executed under the direction of the MEFCCA. The MEFCCA was created by Law 804 in 2012 and its institutional mandate is to promote the family economy through a new model of integrated attention to micro and small rural and urban production. The MEFCCA has experience with World Bank-financed Projects, although this experience is limited to implementing one of the components of a recently closed project.

24. **Project Management.** Within the MEFCCA, the Directorate of Family and Communal Agriculture (*Dirección General de Agricultura Familiar y Comunitaria*) will lead Project implementation. This Directorate will be responsible for appropriate implementation of Project activities, compliance with the Project’s Environmental and Social Management Framework (ESMF) and related World Bank environmental and social safeguards, and overall M&E. The MEFCCA’s financial and procurement divisions at the national and regional levels will be responsible for financial management and procurement of all goods, works and services required for the successful implementation of the Project.

25. **Regional MEFCCA offices.** The MEFCCA operates with 19 decentralized offices and has three territorial offices or Delegations in the Caribbean region in Bilwi and Siuna (RACCN), and Bluefields (RACCS). These Delegations carry out administrative and operational functions at the regional level, in addition to overseeing the implementation and execution of the MEFCCA programs at the local level. In close coordination with the Directorate of Family and Communal

Agriculture, the territorial Delegations will be responsible for managing the Project's procurement and financial processes at the territorial level, as well as for coordinating operational and technical activities regionally. Incremental costs of the Delegations to perform these functions will be financed by the Project under component 3. The Delegations will take up responsibilities for Project implementation in the areas of influence and perform the following functions: dissemination of Project information, mobilization, support to IDP design, implementation and evaluation, and in general all the activities under component 1. They will also: (i) train local promoters, leaders and technicians contracted by producer groups with IDP financing; (ii) promote coordination with local authorities; (iii) promote local partnerships between beneficiaries and other private sector players; and (iv) prepare progress reports for the Project.

26. Coordination with other agencies, and with regional and local authorities of the Caribbean Coast. The MEFCCA will have overall technical and fiduciary responsibility in the implementation of the Project. However, MEFCCA may engage in cooperation agreements with other government agencies and private entities when specific expertise is needed for the implementation of the Project. In addition, coordination with the Autonomous Governments of RACCS and RACCN and their territorial structures will be needed to advise on Project activities (see Annex 3 for details). Finally, the MEFCCA will consult territorial and communal governments to prioritize Project investments and activities in the indigenous and afro-descendants territories.

B. Results Monitoring and Evaluation

27. M&E activities will be carried out by MEFCCA under Component 3. The M&E system will be used to monitor progress and measure Project performance, results, and outcomes, and will focus on capturing benefits for target populations, disaggregated by gender. The MEFCCA, as the implementing agency, will be responsible for commissioning and supervising the following tasks: (i) establishing the Project baseline (to be completed during the first semester of Project implementation), (ii) technical and other studies on Project performance, including a mid-term evaluation (iii) final independent evaluation, and (iv) rapid impact evaluation. A Beneficiary Monitoring System (BMS) will be developed by the MEFCCA during the first semester of project implementation to monitor Project progress with all relevant stakeholders. The BMS will be part of MEFCCA and central government's M&E systems. The M&E strategy is detailed in Annex 3.

C. Sustainability

28. The Project builds on the experience and satisfactory results of other rural and agricultural development Projects being implemented in the Caribbean Coast of Nicaragua. Most importantly, the strong focus on sustainability is embedded in the Project demand-driven design through: (i) the strengthening of promoters' network, (ii) the organizational strengthening of the beneficiaries, (iii) the promotion of the beneficiaries' alliance with private sector stakeholders along the value chains, and (iv) advancing the well-established coordination among institutions that support producers in the Caribbean Coast through various governmental programs.

V. KEY RISKS AND MITIGATION MEASURES

A. Risk Ratings Summary Table

Risk Category	Rating
Political and Governance	High
Macroeconomic	Moderate
Sector Strategies and Policies	Substantial
Technical Design of Project	High
Institutional Capacity for implementation and sustainability	High
Fiduciary	High
Environment and Social	Substantial
Stakeholders	Substantial
Others	N/A
Overall Risk	High

B. Overall Risk Rating Explanation

29. **The overall risk is High.** While the proposed operation builds on lessons learned from similar operations and prior experiences in implementing projects in the Caribbean Coast region, significant risks remain given the multi-sector context, the complexity of the Project design, the country's vulnerability to external shocks such as an increase in food prices, and low beneficiary capacity. These risks are managed by a Project design that will: (i) promote nutrition-sensitive agriculture; (ii) provide a clear description of inter-institutional arrangements and roles and responsibilities for Project management; and (iii) establish alliances with local providers of goods and services to ensure strong and sustainable market linkages. To address the risk of low beneficiary capacity to apply for and carry out the IDPs, the Project will provide technical support on IDP preparation and implementation, as well as training to officials of eligible municipalities and technical service providers. Finally, the Project may be adversely impacted by natural disasters.

VI. APPRAISAL SUMMARY

A. Economic and Financial Analysis

30. **An economic and financial analysis carried out in areas covered by the Project shows consistently high Net Present Values (NPV) and Internal Rates of Returns.** The Project benefits will be derived from: (i) the increased production, productivity and value of additional production of traditional and non-traditional crops/livestock; (ii) the increase in the net income of the participating households through livelihood activities; and (iii) improved nutritional security of the participating households by addressing underlying factors through behavioral changes and diversified production. The main economic benefit is found in the enhanced production, in terms of quantity and quality, increase in economic activities in rural areas, and improved health and nutrition enhancing human capital productivity, economic development, and poverty reduction. Expected reduction in diseases and mortality will also result in significant medium and long term benefits such as an improvement in physical work capacity, cognitive development, school performance and health in targeted municipalities.

31. **Based on farm and microenterprise activity models prepared for estimating the family income changes expected from Project interventions, the financial impact of the Project is expected to be positive.** These models include agro-food farm, cocoa and coffee production, livestock, carpentry, fishing and agro-processing. All models show an increase in family income and family employment in the productive activities, reducing their dependence on off-farm employment which is not available in these regions. The net household income increase measures the impact on poverty alleviation and food security. All models show an expected income increase in the range from 30 to 100 percent.

32. **Using a 10 percent discount rate, the analysis shows an Economic Rate of Return (ERR) of 17 percent and a NPV of NIO 418 million (approx. USD18 million).** Incremental net benefits were estimated including: (i) annual net incremental income farm, non-farm and supported off-farm value addition investments; (ii) the incremental production costs of these activities, including investments and operating costs; and (iii) the costs of Project implementation. The impact of the nutrition enhancing activities was quantified based on the projected increased productivity during the adult working life of beneficiaries who were children at the time of Project implementation. The analysis assumed that these children, once working adults, would perceive an incremental average wage increase of 20 percent compared to what they would have earned without receiving the benefits of the Project. No indirect benefits were quantified. For further details on the economic and financial analysis please see Annex 5.

33. **Rationale for public sector financing.** Nicaragua's endowment with water, forests, and soil is critical for much of the country's economic activity. Deteriorating natural resource management and frequent natural disasters affect the livelihoods of the poor. Past experiences show that successful poverty reduction in rural areas is linked to the ability of the poor to diversify their livelihoods while conserving the environment. There are sites where farming is limited due to weather and/or eroded or erodible soil. In such conditions, poverty reduction may be achieved by enabling the poor to diversify and complement their on-farm income through off-farm activities. This diversification could offer higher income and reduced vulnerability to shocks due to weather and/or market conditions. Poverty reduction is essential to the development agenda of the Republic of Nicaragua.

34. **Value added of Bank's support.** The Bank's involvement adds value in several ways, including: (i) providing technical support and capacity building to improve rural productivity through agriculture and nutrition and food security; (ii) serving in a convening role to facilitate donor coordination; (iii) providing unparalleled expertise and best practices in transparent and efficient public procurement; (iv) developing and implementing M&E systems; and (v) helping the GON manage the risk involved in a large-scale inter-institutional activity.

B. Technical

35. **The Project's technical design builds on lessons learned and best practices of similar Projects in Nicaragua and the LAC region.** For nearly two decades, the World Bank has successfully supported clients in the LAC region in the design and implementation of grant-type projects (e.g. productive alliances) to address critical bottlenecks limiting commercial and income opportunities for farmers and their organizations. Building on these experiences and the specifics of the targeted areas and beneficiaries, the Project proposes a range of intervention models to

address the needs of farmers (and artisanal fisheries), including those at a subsistence level as well as those with a higher commercialization potential. The Project applies good practice approaches, such as rapid participatory value chain assessments, to identify the range of constraints and opportunities around a set of sub-sectors/value chains and productive systems, and prioritize investments with the highest potential economic and social return.

36. **Furthermore, the Project applies tested approaches for the integration of nutrition-sensitive activities in food security and agriculture programs.** The Project will focus on developing the capacities of a broad range of stakeholders through education and effective communication-related activities, but with a particular focus on women given their direct link with family nutrition. Furthermore, men will be actively involved in such activities as well, to ensure the gender gap is not deepened by the Project activities. Health and nutrition support is informed by evidence-based interventions in community child health and nutrition that have been shown to prevent and adequately address under-nutrition during the first 1,000 days of life, such as the Integrated Model for Childhood, Food and Nutrition Security Program, implemented in the RACCN by the central and regional governments (United Nations Development Program). This program was recently evaluated and has shown positive effects on reducing child malnutrition, as well as awareness creation among all stakeholders.

C. Financial Management

37. **A Financial Management Assessment (FMA) was carried out to evaluate the adequacy of the financial management arrangements of the MEFCCA to support implementation of the grant.** Overall Project design is complex, mainly due to the financing of subprojects (IDPs) which requires highly decentralized arrangements, including, in some cases, the disbursement of funds to beneficiaries with limited capacity. While budgeting, accounting and financial reporting functions will be mainly managed by the Financial Division at the central level, the regional delegations will be in charge of key fiduciary functions. Those functions include: procurement and payments for the IDPs under modalities of delegated administration and shared administration, and follow-up on the implementation of activities and review of disbursement requests and Statements of Expenses for the IDPs. The Project will require significant strengthening of the MEFCCA, both at central and regional level, as well as close guidance and supervision. FM arrangements, including required mitigating measures, as designed are considered acceptable to the Bank and are further detailed in Annex 3. The proposed FM arrangements and in particular the flow of funds will be closely monitored and re-assessed after the first year of implementation to identify any adjustments needed.

D. Procurement

38. **Procurement activities under the Project will be carried out by the Procurement Division of the MEFCCA in accordance with the provisions of the Grant Agreement, the World Bank's guidelines¹⁶ and the Operational Manual.** An assessment of the MEFCCA's capacity to implement procurement was carried out and the overall risk for procurement is rated

¹⁶ The World Bank's Guidelines on Procurement of Goods, Works and Non-Consulting Services under IBRD Loans and IDA Credits and Grants by World Bank Borrowers (dated January 2011 and updated in January 2014)
The World Bank's Guidelines on Selection and Employment of Consultants under IBRD Loans and IDA Credits and Grant by World Bank Borrowers (dated January 2011 and updated in July 2014)

Substantial considering the agency's limited capacity and complex implementation arrangements, particularly with respect to the IDPs. Procurement activities under the IDPs will be carried out following one of the three methods: (i) delegated administration by MEFCCA (Central Office or through the offices of RACCN and RACCS); (ii) shared administration, in which procurement decisions are taken by the beneficiary groups and payments are done by the MEFCCA; and (iii) direct transfer of funds to formalized/legalized groups of beneficiaries (cooperatives, associations, community-based organizations). A Procurement Plan was prepared to establish the particular contracts for works, goods and services, the proposed procurement methods and the related World Bank review procedures. Considering the proposed use of IDPs, the Operational Manual includes clear supervision arrangements as well as appropriate simplified templates for the Procurement Plan, contracts, request of quotations, and others (please see Annex 3 for further details).

E. Social (including Safeguards)

39. **A Social Assessment, carried out during Project preparation, recognized that the Project will operate within multiple complex social, geographic and political orders that present a substantial risk of elite capture.** To manage this risk, the Project will: (i) implement a communications and public engagement plan, and (ii) implement a participatory IDP design process with opportunities for beneficiary inputs at key decision points. MEFCCA will identify and mobilize eligible beneficiaries through local consultations and promote the participatory design of IDP investments by the beneficiary groups and support the preparation of IDPs, which will include whenever possible other local development partners like other public institutions in the agriculture and fishery sectors, municipalities, local universities, farmers' organizations, and technical service providers. Activities will include communication and dissemination campaigns, technical support for the design of IDPs, training to officials of eligible municipalities and technical service providers on critical areas of IDP preparation, implementation and monitoring, fiduciary and safeguard assessments of IDP investments, strengthening of organizational and business capacities of producers, and TA for sanitary and phytosanitary surveillance/services.

40. **The safeguard policy OP/BP 4.10 Indigenous Peoples is triggered.** As the exact nature and location of the Project-funded activities within the selected 15 municipalities will only be determined during implementation, an Indigenous Peoples Planning Framework (IPPF) was prepared. During implementation, the IPPF will assist MEFCCA to determine whether Indigenous Peoples are present in any of the Project areas, and if so, to ensure that the interested communities support the proposed activities as well as any additional measures required to maximize their culturally-appropriate benefits and/or avoid potentially adverse impacts. A draft IPPF was presented during regional consultations with potential beneficiaries in Siuna, Bilwi and Bluefields. Participants raised concerns about the range of eligible productive activities, the role of local officials in the administration of Project funding, and the need for complementary investments in access roads, communications and capacity building. These concerns have been addressed by the inclusion of broad sectorial eligibility requirements, inviting local authorities and leaders to participate in the Regional Coordination Committees and by seeking to coordinate the locations of the proposed Project's investments with those of other World Bank and development partner investments in the region.

41. **To implement the social and environmental safeguards, the Project will be guided by an ESMF.** The MEFCCA will contract three additional Social/Gender Specialists to assist with

implementation of the ESMF, two specialists will be based in each of the regional technical Delegations and one will support monitoring and evaluation of the Project's social impacts and mitigation measures from MEFCCA's national office in Managua. Due to the limited physical footprint of the proposed investments, no land acquisition or displacement of assets is expected. All TA and equipment investments will be restricted to either lands privately owned by the participating producers and/or unoccupied municipal or communal lands. MEFCCA will use the ESMF to screen out any potential activities that could require land acquisition or displacement of assets. It is expected that there will be strong stakeholder support and participation in the Project. Several early consultations have been carried out with inter-institutional collaboration. Initial consultations were organized in three target areas in the RACCN and RACCS where local stakeholders expressed support and provided feedback to the GON which were considered during Project preparation and will inform implementation.

42. **The Project will seek to promote gender equality through several actions including:** (i) ensure women's and men's equal participation in local producer groups; (ii) improve their access to new technologies and information; and (iii) provide opportunities for non-farm income generation. The Project will track the impacts of investments on women and men and measure the progress of women's achievements as compared to men's. In the first year of implementation, a Gender Strategy will be prepared based on a Gender Assessment that will analyze the factors that may enable or limit gender equity in the context of the different groups of beneficiaries (see Annex 3).

F. Environment (including Safeguards)

43. **The Project is classified as Category B requiring a partial Environmental Assessment.** The Project is expected to have a positive environmental impact through promotion and application of climate-smart agriculture and sustainable production/fishing practices. Despite the positive expectations of the Project's direct environmental impacts, its environmental risk is considered *Substantial* as it promotes improved gains from agricultural production, which could cause undesirable indirect impacts. Therefore, it is critical that environmental sustainability and use of locally-validated good practices are key factors in designing and approving IDPs and planning for the related capacity building and TA. Given the local context, with the presence of protected areas and the expanding agricultural frontier, raising awareness and capacity building on sustainable forestry and use of non-timber forest products will be embedded in the IDP designs. Due to challenging socio-environmental management requirements and lack of community-level support, financing palm oil production with Project funds will not be eligible.

44. **The Project triggers five environmental safeguard policies:** Environmental Assessment (OP/BP 4.01), Natural Habitats (OP/BP 4.04), Forests (OP/BP 4.36), Pest Management (OP 4.09), and Physical Cultural Resources (OP/BP 4.11). The ESMF, including the IPPF, was prepared, reviewed with stakeholders in public consultations¹⁷ and disclosed in accordance with the World Bank guidelines in-country and by the World Bank InfoShop on November 25, 2014. The ESMF will facilitate integration of socio-environmental aspects into the IDP cycle and detail related responsibilities, including a negative list to prevent harmful impacts, guidelines for the use of good practices and standardized mitigation measures.

¹⁷ Public consultations on the draft ESMF were organized in Siuna, Waspam, and Bilwi (RACCN), and Bluefields and Kukra Hill (RACCS) between April and June 2014.

45. **The General Directorate of Family and Communal Agriculture will be responsible for ensuring compliance with the ESMF.** The Project will recruit two environmental specialists, one in each of MEFCCA's delegations in the RACCN and RACCS. At the central level, the Environmental Unit of MEFCCA will be responsible for coordinating the Project's environmental management. The initial ESMF implementation will include inter-institutional collaboration to compile/prepare a regionally adapted Manual for Good Environmental Practices, including guidance for climate-smart agriculture. At Project mid-term, the Project may contract an external environmental audit, if considered necessary.¹⁸

G. Other Safeguards Policies Triggered

46. **The OP/BP 7.50 Projects on International Waterways is not triggered as the Project activities in the Wangki or Coco River Basin area will not include irrigation, flood control, drainage, water and sewerage, industrial, and similar investments.** It is not expected that the Project activities will involve the use or potential pollution of the Wangki or Coco River, nor affect the riparian country of Honduras. Project activities to support artisanal fisheries and aquaculture will not take place in areas of the Wangki or Coco River Basin.

H. World Bank Grievance Redress

47. Communities and individuals who believe that they are adversely affected by a World Bank (WB) supported project may submit complaints to existing project-level grievance redress mechanisms or the WB's Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to address project-related concerns. Project affected communities and individuals may submit their complaint to the WB's independent Inspection Panel which determines whether harm occurred, or could occur, as a result of WB 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 Bank Management has been given an opportunity to respond. For information on how to submit complaints to the World Bank's corporate Grievance Redress Service (GRS), please visit <http://www.worldbank.org/GRS>. For information on how to submit complaints to the World Bank Inspection Panel, please visit www.inspectionpanel.org.”

¹⁸ The need for an external environmental audit will be assessed based on the quality of the overall environmental support for and monitoring of the Project activities during implementation and the level and type of challenges faced by the Project's environmental management.

Annex 1: Results Framework and Monitoring

Country: Nicaragua

Project Name: Caribbean Coast Food Security Project (P148809)

Results Framework

Project Development Objectives

PDO Statement

The proposed project development objective is to enhance food and nutritional security in select communities of the Caribbean Coast of Nicaragua.

Project Development Objective Indicators

Indicator Name	Baseline	Cumulative Target Values					
		YR1	YR2	YR3	YR4	YR5	End Target
Clients who have adopted an improved agricultural technology promoted by the project (Number) - (Core and GAFSP)	0.00			3000.00		8000.00	8000.00
Clients who adopted an improved agricultural technology promoted by project – female (Number - Sub-Type: Breakdown) - (Core and GAFSP)	0.00			600.00		1600.00	1600.00
Increased agricultural/livestock productivity among all direct beneficiaries (Percentage)	To be defined by the baseline study			5.00		10.00	10.00

Increase in Dietary Diversity Score (DDS) for women and children of direct beneficiary families (Percentage of population reaching a target score)	To be defined by the baseline study			80.00		80.00	80.00
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Intermediate Results Indicators

Indicator Name	Baseline	Cumulative Target Values					
		YR1	YR2	YR3	YR4	YR5	End Target
Families who implement IDPs (Number)	0.00	2285.00	5650.00	10375.00	13800.00	14000.00	14000.00
Families led by women, who implement IDPs (Number - Sub-Type: Breakdown)	0.00	460.00	1130.00	2080.00	2760.00	2800.00	2800.00
Increased production volume (of fisheries and agriculture products) (Percentage)	To be defined by the baseline study			10.00		15.00	15.00
Volume of farm produce under improved post-harvest management (Percentage) – (GAFSP)	To be defined by the baseline study	10.00	15.00	20.00	25.00	30.00	30.00
Agribusiness adopting Good Manufacturing Practices (GMP)/Good Hygienic Practices (GHP) (of the total agribusiness & fisheries IDPs) (Percentage)	To be defined by the baseline study			25.00		50.00	50.00
IDPs adopting nutrition sensitive practices (Percentage)	0.00			25.00		50.00	50.00
Increased market access (Percentage)	0.00			20.00		40.00	40.00

Increased market access - female (Percentage - Sub-Type: Breakdown)	0.00			40.00		40.00	40.00
Nutrition-related training (Number)	0.00	500.00	1500.00	2000.00	2000.00	2000.00	2000.00
Nutrition - related training (men) (Number - Sub-Type: Breakdown)	0.00	200.00	600.00	800.00	800.00	800.00	800.00
Technological Development Centers (TDC) upgraded (Number)	0.00		1.00	2.00	2.00	2.00	2.00
Diversified production (Percentage)	0.00			10.00		15.00	15.00
Audits carried out (Number)	0.00	1.00	2.00	3.00	4.00	5.00	5.00
Evaluations carried out (Number)	0.00	1.00				2.00	2.00
Project monitoring and evaluation system in place and operating (Percentage)	0.00	100.00	100.00	100.00	100.00	100.00	100.00

Indicator Description

Project Development Objective Indicators

Indicator Name	Description (indicator definition etc.)	Frequency	Data Source / Methodology	Responsibility for Data Collection
Clients who have adopted an improved agricultural technology promoted by the project	This indicator measures the number of clients of the project who have adopted an improved agricultural technology promoted by the project.	Biannual	Beneficiary Monitoring System (BMS)	MEFCCA / Territorial Delegation
Clients who adopted an improved agricultural technology promoted by project – female	This indicator measures the number of clients (female) of the project who have adopted an improved agricultural technology promoted by the project..	Biannual	Beneficiary Monitoring System (BMS)	MEFCCA / Territorial Delegation
Increased agricultural/livestock productivity among all direct beneficiaries	Percentage of increase in crop yields (Animal productivity in livestock systems) in relation to the baseline, measured amongst all the beneficiaries.	Annual	Beneficiary Monitoring System	MEFCCA / Territorial Delegation
Increase in Dietary Diversity Score (DDS) for women and children of direct beneficiary families	Number of individual food items or groups consumed daily by children under 5 and women, measured amongst all the beneficiaries. The indicator will measure the percentage of the target population having a score of at least 4 (by year 3) and 5-6 (by the end of the project) ¹⁹ .	Mid-term and end of project	It will be measured at the household or individual level through use of a questionnaire. Two target groups have been identified: children under age of five and women in reproductive age.	MEFCCA / Territorial Delegation

¹⁹ In the case of a delay, baseline data from the most recent and comprehensive food security and nutrition survey will be used as baseline. A 2008 Study on food and nutrition of preschool children in rural Nicaragua presents the most recent and comprehensive survey providing Dietary Diversity Score data. The study was conducted in Northern Nicaragua and findings present an average DDS score of 5.6 on an 8-group score. The proposed methodology for the baseline data is similar and could be adapted to allow for comparisons in the event of delays. The description of the consumption patterns of the children in this region is comparable to the consumption patterns of the Caribbean Coast area, namely staple foods, some legumes, infrequent meat and dairy and lack of fruit and vegetable consumption.

Intermediate Results Indicators

Indicator Name	Description (indicator definition etc.)	Frequency	Data Source / Methodology	Responsibility for Data Collection
Families who implement IDPs	Number of families implementing IDPs. At least 20% of the representatives of the families that implement IDPs are women.	Quarterly	BMS	MEFCCA / Territorial Delegation
Families led by women, who implement IDPs	Number of families led by women, who implement IDPs	Quarterly	Beneficiary Monitoring System (BMS)	MEFCCA / Territorial Delegation
Increased production volume (of fisheries and agriculture products)	% of increase of agricultural and fishing production volume. Change in production volumes of prioritized agricultural and fishery products.	Mid-term and end of project	BMS	MEFCCA / Territorial Delegation
Volume of farm produce under improved post-harvest management	Percentage of total volume of IDP's farm produce under post-harvest management supported by the project.	Annual	BMS	MEFCCA / Territorial Delegation
Agribusiness adopting GMP/GHP (of the total agribusiness & fisheries IDPs)	Percentage of agribusiness and fisheries IDPs applying GMP: Good Manufacturing Practice or GHP: Good Hygienic Practice	Mid-term and end of project	Register of Sanitary Inspection	MEFCCA / Territorial Delegation
IDPs adopting nutrition sensitive practices	Percentage of IDPs scoring 3 for nutrition sensitivity (implementation of at least 3 nutrition sensitive practices promoted by the project).	Mid-term and end of project	BMS and administrative data	MEFCCA / Territorial Delegation
Increased market access	Percentage of agro-industrial IDPs that reached and maintain sales agreements.	Mid-term and end of the project	BMS	MEFCCA / Territorial Delegation
Increased market access - female	Percentage of agro-industrial IDPs that reached and maintain sales agreements, and are led by women.	Mid-term and end of project	Beneficiary Monitoring System	MEFCCA / Territorial Delegation
Nutrition-related training	Number of beneficiaries trained. (at least 40% are men)	Annual	Progress report	MEFCCA / Territorial Delegation

Nutrition - related training (men)	Number of men who receive nutrition-related training under the project.	Annual	Progress report	MEFCCA / Territorial Delegation
Technological Development Centers (TDC) upgraded	Number of agricultural TDCs upgraded in the project area	Annual	Progress reports	MEFCCA/ Territorial Delegation
Diversified production	Percentage of increase in diversified production (measured in subsistence IDPs). At least two products of nutritional value (FAO guidelines) that are grown by the beneficiary families with IDPs.	Mid-term and end of project	Beneficiary Monitoring System	MEFCCA / Territorial Delegation
Audits carried out	Number of audits carried out by the project	Annual	Progress reports	MEFCCA with independent audit firms
Evaluations carried out	Baseline study and final impact evaluation carried out by the project.	Year 1 (baseline) and year 5 (final impact evaluation)	Progress report	MEFCCA with independent evaluation firms
Project monitoring and evaluation system in place and operating	The project monitoring system is in place and fully operational, producing information and reports for project management.	Annual	BMS and GAFSP mapping.	MEFCCA

Annex 2: Detailed Project Description

NICARAGUA: Caribbean Coast Food Security Project

- 1. The Project development objective is to enhance food and nutritional security in selected communities of the Caribbean Coast of Nicaragua.** The PDO is aligned with PRORURAL-I, the Caribbean Coast and Alto Wangki Bocay Development Plans and Strategy within the overall PNDH framework. In alignment with the government food security policy, under the National Food Program (PNA—one of PRORURAL I components), the contributions of the Project to enhance food and nutritional security will focus on improving food availability and secure access to food through increased agricultural productivity and to a lesser extent other non-agriculture rural activities; and improving nutritional security through diversified diet/nutrient intakes, and feeding/caring practices for vulnerable communities. Key indicators of PDO are: (i) Clients who have adopted an improved agricultural technology promoted by the Project; (ii) Increased agricultural/livestock productivity among all direct beneficiaries; and (iii) Increase in DDS for women and children of direct beneficiary families. The PDO will be achieved by: (i) enhancing productive and marketing capacities of farmers and rural microenterprises through supporting the participatory design of IDPs, and providing financing and technical support for their implementation; and (ii) strengthening sectoral capacities for the provision of transversal services/support to IDPs in the areas of technology generation/transfer and nutritional education and communication. The Project will be implemented over five years.
- 2. Project Area.** The Project will work in approximately 246 indigenous and mestizo communities in the RACCN and RACCS (see map), with a focus on women, young adults, children, and indigenous and afro-descendant communities. The Project will be implemented in the Caribbean Coast in accordance with Law 28 (Autonomy), Law 445 (Communal Property Regime) and Law 40 (Municipalities) and will include fifteen municipalities as follows: Puerto Cabezas, Bonanza, Rosita, Waspam, Siuna, Prinzapolka, Waslala, and Mulukuku (RACCN), and Paiwas, Bluefields, Kukra Hill, El Tortuguero, La Desembocadura de Rio Grande, Laguna de Perlas , and La Cruz de Rio Grande (RACCS). It is estimated that the Project will support 14,000 families, of which approximately 5,000 are afro-descendent and indigenous families and approximately 9,000 Mestizo families.
- 3. Targeting methodology.** The main criteria for municipalities and community selection are the prevalent poverty rates/levels²⁰ (ranging from 25.2 percent in Paiwas to 87.4 percent in Desembocadura de Rio Grande) and chronic malnutrition²¹ (from 16.4 percent in Puerto Cabezas to 44.4 percent in La Cruz de Rio Grande). All the municipalities in the Caribbean Coast of Nicaragua have a much higher percentage of extreme poverty than the national average (14.6 percent). These statistics represent the overall precariousness of the region at the household level and related to food insecurity, lack of access to basic services and low income. According to the FAO, as extreme poverty roots itself, chronic malnutrition will prevail, as in many parts of Nicaragua and other countries in Latin American.

²⁰ 2005 VIII Population census and IV Housing Census

²¹ National Weight and Height Census (INIDE, 2009)

4. The selection of communities will take into account the poverty data of the VIII Population Census and the IV Housing Census (2005), which is disaggregated by neighborhoods and districts at the national level. For the interventions specifically related to nutrition, the Project will use the data on “under 5 chronic malnutrition in rural communities,” which is prepared and updated by the local offices of the Ministry of Health in the RACCS and RACCN. Selection of families will comply with established criteria in the Operational Manual. In addition, the productive potential²² of the municipality and community will be an important aspect of the IDP approval process.

Component 1: Innovation Development Plans for Strengthening Natural and Non-Natural Resource-Based Productive and Marketing Capacity (US\$31.85 million, GAFSP Grant US\$26.5 million).

5. This component will enhance productive and marketing capacities of farmers and rural microenterprises by supporting organized groups of producers, artisanal fisheries and rural microenterprises in production improvements, innovations and the consolidation of market opportunities. The component will support the design, financing and implementation of collective business proposals or IDPs. These plans will receive financing under this component for TA, inputs and small capital investments designed to remove productive, technological, organizational, environmental, and/or market-related barriers to sustainable production and address other factors that are hindering the realization of opportunities for better economic and nutritional outcomes. An IDP will be typically benefitting a group of producers organized formally or informally around a common interest (e.g. crop production diversification, development of market linkages, adoption of a new technology) as a cooperative, an association, a rural enterprise or other, and the total financial amount received will be based on the type of IDP and the number of associated members as explained further in table 2 below.

6. **Beneficiary mobilization and design of IDPs.** The MEFFCA’s technical teams in the field offices of Puerto Cabezas, Siuna, and Bluefields will identify and mobilize beneficiaries through local consultations and provide technical support to ensure the participatory design and quality of IDP proposals to be submitted by the beneficiaries. This process will include, whenever possible, the technical contributions of other local development partners (i.e. other public institutions in the agriculture and fishery sectors, municipalities, local universities, farmers’ organizations, non-governmental organizations, and technical service providers) according to technical criteria described in the Project Operational Manual. The IDP proposals will be reviewed by the IDP Technical Revision Committee (see Annex 3), and approved by MEFFCA. These activities will include, *inter alia*: (i) the carrying out of communication and dissemination campaigns in targeted areas; (ii) technical support for the design of IDP proposals, including rapid and participatory value-chain assessments and territorial diagnostics; (iii) the provision of training to officials of eligible municipalities and technical service providers on critical areas of IDP preparation, implementation and monitoring; (iv) financial, social, environmental and technical assessments associated with IDP investments; (v) strengthening organizational and business capacities of producer groups, communities and small rural producer organizations as well as broad activities fostering smallholder linkages to markets; and (vi) the mobilization of TA for

²² IV National Agricultural Census (INIDE, 2011) and Maps of Land Potential Use for Production Potential (MAG, 2013)

sanitary and phytosanitary surveillance/services required to support the IDPs during the production and processing stages.

7. **Typology of IDPs.** The IDPs will cover natural and non-natural resource-based productive activities (and services) with nutritional considerations. Natural resource-based IDPs will focus on the promotion of sustainable productive, processing and/or commercialization improvements and innovations around family agriculture (including livestock) and artisanal fisheries. Non-natural resource-based IDPs²³ will support innovative small and micro family and community enterprises and strengthen their capacity to access markets and self-employment opportunities, emphasizing opportunities for women and young-adults. Four types of IDPs will be supported by the Project:

8. ***IDPs targeting family agriculture (including livestock).*** These IDPs will seek to improve productivity that is diversified, sustainable and climate smart. A mix of short-, medium- and long-term investment models will be supported by promoting, among other options: (i) short-term: vegetables and food crops; (ii) medium-term: diversification through perennials crops; and (iii) long-term: agro-forestry/silvopastoral systems). Producers will be supported in the use of quality inputs (e.g. certified or improved seed/seedlings), the purchase of tools and the adoption of good production/management practices and technologies (e.g. storage). For producers with commercialization potential, market linkages will also be supported.

9. Overall, these IDPs will promote production development, especially for “*autóctonos*” (traditional) products that will fulfill food security objectives via self-consumption and including nutritional considerations. Groups of producer families with the potential to produce—or who are currently generating—marketable product surpluses with identified demand and that require strengthening of productive opportunities and market linkages will be supported. Approximately 11,000 families are expected to benefit through IDPs supporting family agriculture.

10. ***IDPs targeting artisanal fisheries (and aquaculture).*** These IDPs will strengthen the productive capacities and household incomes of 1,500 families of small artisanal fisheries in 19 communities in the RACCN and RACCS. Partnerships between the small and existing processing plants and distributors will be supported to promote product marketing, the supply of ice and value-addition. These IDPs will support (i) sustained improvements in production through technologically appropriate options for small-scale fisheries and the adoption of environmental management practices; (ii) the generation of value addition and (iii) strengthening market linkages.

11. Through these IDPs, fishers organized into cooperatives, small family businesses and community solidarity groups will have access to resources for the purchase of boats, fishing supplies and working capital. The Project will support the acquisition of appropriate and better equipped boats suitable for small-scale fisheries (with more efficient engines, ice deposits and better communication and navigation equipment). Also, the IDPs will fund activities to add value to the production and encourage the establishment of partnerships between processing plants and beneficiary families, ensuring the commercialization of production, a better price for products and purchase of inputs at affordable prices. These IDPs will also support aquaculture initiatives with ponds for small producers, considering both diversification of production and promotion of food

²³ Microenterprises providing services in natural resource-based sectors (e.g. eco-tourism) will also be supported, if opportunities are identified.

security. Training and TA for the establishment of sustainable management practices will complement the investments to be made through these IDPs.

12. **IDPs on agricultural/agro-industrial ventures.** These IDPs will support agricultural/agro-industrial ventures from organizations of producers seeking to improve processes of value addition at the farm and collective level (selection, cleaning, washing, etc.) and fostering market linkages (partnerships/agreements with buyers). The IDPs may support downstream processing (for example, manual processing of cocoa). Additionally, through these IDPs, resources will be allocated to strengthen the businesses through enhanced quality and safety management and investments in infrastructure/equipment for production and marketing.

13. **IDPs on promoting innovations for non-agricultural microenterprises.** These IDPs will support innovative non-agricultural small and micro family and community enterprises and will strengthen their capacity to access markets and self-employment opportunities, emphasizing opportunities for women and young adults. The IDPs will support gender-sensitive TA and training for production, marketing, business and environmental management, and investments in equipment/supplies needed to strengthen productive capacity of microenterprises.

14. Table 2 summarizes the types of IDPs, including the targeted beneficiaries, types of support, co-financing requirements, and support thresholds. The nature of IDP investments is not exclusive; an IDP may include several different types of support.

Table 2. Categorization of the support to be provided/financed through the different typologies of IDPs

Type of IDP	Examples of Types of Support	Maximum Amount	Beneficiary counterpart
Family agriculture/livestock IDPs			
i) Orientation: self-consumption and community exchange	Inputs and equipment for (i) production, (ii) value addition and (iii) reduction of post-harvest losses at farm level; tools and equipment; TA and training.	US\$1,500/ Family	10% in kind
ii) Orientation: production of surplus/commercial orientation	As in (i) above, with an additional focus on links/alliance with the market (identification of demand)	US\$1,500/ Family	15% in kind
Artisanal fisheries IDPs			
i) Orientation: Self-consumption and community exchange	Investment in machinery, equipment and tools, seed capital, and TA and training.	US\$2,300/ Family	10% in kind
ii) Orientation: production of surplus/commercial orientation	As in (i) above, with an additional focus on links/alliance with the market (identification of demand)	US\$ 2,300/ Family	15% in kind
Agricultural/agro-industrial ventures			
(i) Agribusiness enterprises (value addition activities)	Seed capital and supplies, equipment and machinery. TA and training	US\$2,300/ Family	15% in kind
Non-agricultural microenterprise			

(i) Innovative non-agricultural small and micro family and community enterprises	Seed capital, supplies, equipment and machinery. TA and training	US\$1000/ Family	10% in kind
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15. **Beneficiary targeting.** Poverty levels and connectivity to markets are among the key criteria for differentiating among beneficiaries at the subsistence level and those that would be supported to benefit from more commercial-oriented opportunities. It is expected that the IDPs at the subsistence level will cover approximately 5,000 families. The number of farmers benefitting from an individual IDP will vary according to several factors (e.g., type of productive activities, geographic location, etc.); however, it is expected that, on average, an IDP will benefit groups of approximately 30-35 beneficiaries. Family farming IDPs are expected to benefit about 75 percent of the Project beneficiary families, with key criteria including a production area of 0.5 to 20 hectares/family located outside protected areas, small-scale/artisanal producers and families with limited resources that have already established a small business and need support to develop a dynamic business. Agribusiness-related IDPs are targeted to producer organizations with at least ten members. The specific targeting and eligibility criteria for each IDP category are included in the Operational Manual, reflecting the particularities of the target groups and the different types of support.

16. **IDP preparation/implementation.** The IDPs will be identified through a rapid and participatory value-chain mapping and territorial diagnostic exercise conducted by local stakeholders and Project technical staff. These mapping and territorial diagnostic exercises will be aligned with the national and municipal/territorial development plans. Participatory communication methodologies will be applied during the identification of the key value chains/subsectors and production systems, and during the preparation of the IDPs. Overall, the IDPs will be the outcome of a highly participatory and concerted effort, which will also include private sector perspectives (nongovernmental organizations and relevant private companies/buyers and service providers working in partnerships with the beneficiaries). IDP proposals will be prepared by beneficiary groups, with technical support from MEFCCA, and other local development partners whenever possible. The beneficiary groups will submit their IDP proposals to the IDP Technical Revision Committees in the three target areas. Ultimately, the IDPs will be approved by MEFCCA (see Annex 3). The IDP will include financing of TA to support its implementation with other local development partners. Nutritional considerations are included throughout the entire process including: (i) general guidance in the Operational Manual on developing IDPs; (ii) specific guidance with examples of nutrition-sensitive activities that would be prepared during Project implementation; and (iii) in the approval process with criteria defined for nutrition-sensitive agriculture.

17. The good production practices and technologies to be promoted within each IDP will be aligned with the socio-economic and environmental realities of the beneficiaries and the markets served. The integration of these good practices will require an identification of critical and appropriate practices and prioritization of these practices for each production system. The application of good practices will be an important component of the IDPs to address environmental concerns and other risk management concerns (climate variations, pests and diseases). The technical support provided through the IDPs will also include the mobilization of sanitary and

phytosanitary services/TA, such as raising awareness and supporting implementation of good hygiene/manufacturing practices in the agriculture/agri-business IDPs (food and fisheries).

18. The component will support activities to strengthen the business and organizational skills of beneficiary groups. However, to reflect the broad range of capacities among the targeted beneficiaries, MEFCCA, on the basis of a prior analysis of each beneficiary group or organization, will decide amongst three different mechanisms to channel fiduciary support: (i) fiduciary administration by MEFCCA (or “delegated administration”); (ii) shared administration, in which the procurement process/decisions will be taken by the beneficiary groups, but payments will be done by the Project/MEFCCA; and (iii) direct transfer of funds to formalized/legalized groups of beneficiaries (cooperatives, associations, community-based organizations, and others). These arrangements are discussed in greater detail in Annex 3. Furthermore, the Project will contribute to the development of a supply of services (TA/extension) in the region through the engagement of qualified institutions and/or individual professionals, which will support the implementation of the IDPs.

19. National and Regional (in RACCN and RACCS) Coordination Committees will be established with the participation of members of the regional offices of relevant institutions as well as representatives of relevant public and private entities at the national and regional levels. These committees, chaired by MEFCCA, will ensure that views from the various local stakeholders are taken into account and will guarantee transparency to the overall approval process. The IDP approval process will include a thorough review of the proposals to ensure that investments in communities do not foster any existing land conflicts or any other property claim that may interfere with the development of productive and/or market-related initiatives.

20. ***Promoting Market Access and Private Sector Participation.*** An important focus of the IDPs targeting farmers/fisheries with commercialization potential is the strengthening of their linkages to markets. These IDPs will include specific activities such as support for certifications to access or sustain participation in profitable markets. A broad set of activities that will help beneficiary producers/fisheries and microenterprises to identify and consolidate potential market opportunities will also be supported. These activities could include: produce fairs; business round tables; buyer travel to production areas to identify potential opportunities for contract schemes or other types of vertical linkages; support for market identification studies; participation in trade missions and knowledge exchange activities; etc. Public-private sector commodity-based round tables currently operate at a national level and the Project will strengthen the links between Project activities and these existing platforms to help inform and guide Project activities.

Component 2: Strengthening service provision for sustainable production, food security and nutrition (US\$6.42 million, GAFSP Grant US\$4.10 million).

21. This component will strengthen sectoral capacities for the provision of transversal services/support to IDPs in the areas of technology generation/transfer and nutritional education and communication, as follows:

22. ***Technology generation/validation and transfer.*** The component will finance activities to improve productivity and quality of agriculture through enhancing capacity of INTA to

generate/validate and transfer sustainable technologies, using participatory methodologies, demand-driven approaches and farmer-to-farmer, and promote predetermined packages of technology. It will also strengthen the broad technical capacity of government staff and technical service providers supporting the IDPs implementation. Technology generation/validation and transfer activities seek to close gaps in topics related to productivity and quality, reduction of postharvest losses, supporting productive diversification and increasing the resilience of productive systems. The main activities include: (i) upgrade two Technological Development Centers of INTA in the Project area, so that they can effectively support the generation and validation of sustainable technologies, and (ii) train technical professionals, promoters and local leaders to support the transfer of innovative technologies and practices to farmers benefiting from the IDPs. Capacity building will emphasize the educational and participatory approaches to technological design and implementation of IDPs.

23. ***Nutritional education and communication and nutrition sensitive agriculture.*** Activities under component 2 will support the mainstreaming of nutritional considerations into IDPs through nutritional education and communication activities and the promotion of diversified production and consumption. This component will promote improved feeding and food handling practices with specific emphasis on pregnant and breastfeeding women and children. The Project will support nutritional education and behavior change communications to raise awareness and knowledge about nutrition and the role of agriculture in improving nutrition outcomes, ensuring appropriate channels are used to reach out to both women and men.

24. Three nutrition-related activities will be supported, namely: (i) nutritional education and behavior change communications activities to raise awareness and increase knowledge about nutrition and the role of agriculture in improving nutritional outcomes; this activity will be targeted to the direct Project beneficiaries (families and producers), the institutions and actors involved in the implementation of all Project interventions, and to local and national policy makers; (ii) integrating nutrition in agriculture by ensuring that agriculture production and marketing decisions are made with nutritional considerations (aligned with component 1 IDPs to leverage key entry points in the agriculture sector to improve nutrition); and (iii) leverage other sector activities through coordination mechanisms at central and local levels based on the experience of other alliances promoted by the GON with key line ministries (i.e., Health, Social Protection), local stakeholders and the private sector.

25. ***Nutritional education and behavior change.*** This activity will support education and behavior change communication sessions for beneficiaries/families, agricultural producers and local authorities to increase the local knowledge about the importance of an adequate high quality diet. Information will be provided on which foods constitute such a diet, the use of local foods and improved preparation and conservation practices, and special requirements for pregnant and lactating women and children. All nutritional education and behavior change communication materials will be based on the results of a diagnostic study and mapping of the nutrition and food insecurity situation in the locality. Communications and training manuals will be tailored to different stakeholders and beneficiaries including: women and children (focus on family diet and specific needs); agriculture producers (field schools on basics in nutrition and the link between agriculture production practices and final consumption); training of trainers and supervisors (focus on transfer of knowledge); and local authorities (importance of nutrition for community

development and intersectoral links). A number of different types of communication modalities would be used. These could include mass media (Television and radio public service announcements, tv and radio novellas using humor as a modality to engage the community and convey messages, etc.), community-level activities such as village dramas, interpersonal communication, information and communication technologies, and new social media channels all are possibilities that will be explored and adapted to the local situation and needs. When possible, agricultural knowledge transfer under component 1 will be coordinated/combined with nutritional knowledge transfer under component 2, reinforcing and linking the activities of both components. Training includes not only education sessions, but also cooking demonstrations with local products, organization of fairs to showcase and share new products, demonstration tables, experimental farms, and other methods.

26. ***Integrating nutrition in agriculture (and food security)***. The activities to be supported include institutional development and capacity building for agriculture and other relevant department staff who will assist in the development of the IDPs at the local level. Knowledge transfer will focus on incorporating nutrition-sensitive actions in the IDPs, including the development of training modules and materials on nutrition-sensitive activities in the IDP proposals, and addition of ‘nutrition sensitive’ criteria in the IDP approval mechanism. The integration of nutrition will help to ensure that the IDPs contribute to not only increased production, but also improvements in nutritional security. For example, the IDPs could include crop diversification with highly nutritious foods; introduction of improved seeds and bio-fortified crops; use of zinc fertilizers; improved technology for high value nutritional crops (fruit trees, certain vegetables, small livestock) and year-round availability; improved marketing opportunities for nutritious foods; improved conservation and reduction of post-harvest waste; small enterprises to produce high quality products for school lunches; and introduction of labor-saving technologies; especially for women, so they have more time to care for small children.

27. ***Leveraging other sector activities***. In order to ensure an adequate diet that will lead to improved nutritional status, access to health services (and child growth promotion programs) as well as water and sanitation are important. Although addressing these issues is not part of this Project, coordination with other responsible entities in the localities is anticipated as a sub-activity to ensure complementarity. Activities may include mapping of local services and providers of social services and programs; conducting coordination meetings, sharing knowledge in a participatory manner, and coordinating with a child growth promotion program that is implemented by the Ministry of Health, in those communities where there is such a program ongoing.

28. The nutritional activities will be implemented by a team of nutrition specialists hired by the MEFFCA under the Project. One will be responsible for coordination, management of the team and reporting on results, the other two will be regionally based staff to conduct the nutritional activities at the community level. This team will strengthen the nutrition capacity at the MEFFCA and will be recruited for the duration of the Project. In addition to the technical level tasks, they will also assure coordination activities at all levels between sectors. The terms of reference have been prepared and are included in the Operational Manual. In terms of timeline, this team will be recruited immediately at the start of the Project.

Component 3: Project management, monitoring and evaluation (US\$3.73 million, GAFSP Grant US\$3.30 million).

29. This component will support Project management capacity and the establishment and operation of a comprehensive M&E system in MEFCCA. The M&E component responds to the GAFSP's specific requirements for M&E and the GON's vision under the overall framework of the country's main M&E systems (SIGRUN for the Office of the Presidency of Nicaragua, and the PRORURAL-I Monitoring, Evaluation, and Learning System (SISEVA) for the Agricultural Sector).

30. **Project Management.** MEFCCA, through its General Directorate of Family and Communal Agriculture ((*Dirección General de Agricultura Familiar y Comunitaria*)), will be responsible for appropriate implementation of Project activities, compliance with the Project's Environmental and Social Management Framework and the World Bank environmental and social safeguards, and overall Project M&E. Likewise, MEFCCA financial and procurement divisions at the national and regional levels will be responsible for financial management and procurement of all goods, works and services required for implementation of the overall Project.

31. **Project management and M&E** will be based on five principles: (i) strategic alignment with the PNDH and PRORURAL-I, and according to the budgetary management systems of the Ministry of Finance and Public Credit (MHCP); (ii) establishment of a reasonable number of performance and target indicators to measure progress and results; (iii) a results chain, ensuring consistency between different levels of interventions, so that inputs and activities lead to outputs, outcomes and impacts; (iv) continuous periodic measurement of processes and outcomes to provide the basis for Project adjustments, and (v) evaluation of process, outcomes and impacts.

32. The Project will collect and analyze information on a continuous basis to compare how well the Project is being implemented against expected results. Most of the M&E activities will be carried out by the Project staff of MEFCCA alone or in coordination/cooperation with relevant agencies under specific agreements. MEFCCA's M&E system will be used to collect data to measure Project performance and results and monitor the Project indicators. As the implementing agency, MEFCCA will be responsible for preparing Project reports and hiring and supervising M&E activities, including (but not limited to) establishing the Project baseline within the first six months of Project implementation and on the basis of ToRs approved by the Bank, monitoring the IDPs; the Project evaluations; and commissioning relevant studies. For the baseline, MEFCCA will carry out supervision to ensure sound field data collection, sampling and quality control, report analysis, and validation events with relevant stakeholders.

33. **Beneficiary Monitoring System (BMS):** A BMS will be developed by MEFCCA as a simple, effective and participatory instrument to monitor progress and outcomes with all relevant stakeholders. A data form for each IDP and participating family will be filled out by Project staff to capture relevant information to monitor Project indicators. Data will be generated at formulation and regularly updated at implementation stage until IDP completion. During the first six months, the Project will finance the design and implementation of a software platform, as well as training, to upload and manage Project M&E data at the local, regional, and central levels. By the end of the first year of Project implementation, the information will be uploaded to the MEFCCA M&E

system web-based platform and different types of reports will be accessible to external users to guarantee transparency of the process. Efforts to build on existing local capacity for the implementation/operation of the BMS will be crucial (e.g. through engaging local universities).

34. **Project financing plan.** The total cost of the Project is US\$42.00 million, financed by a US\$33.9 million GAFSP grant, US\$5.84 million by GON, and US\$2.26 million in beneficiary contribution:

Table 3. Project Financing

Project Components	Project costs (US\$)	GAFSP	GON	Beneficiary Contribution	% of GAFSP Financing
1. Innovation Dev. Plans	31.85	26.50	3.09	2.26	84
2. Strengthening serv. provision	6.42	4.10	2.32		64
3. Project management, M&E	3.73	3.30	0.43		90
Total Project Costs	42.00				
Total Financing Required		33.90	5.84	2.26	

35. Government counterpart funds will finance operational costs, as well as technical and administrative staff in MEFCCA’s offices, including three Delegations in the Caribbean Coast, and the Directorate of Family Agriculture and other fiduciary Units at MEFCCA’s headquarters. This institutional staff, and their operational costs associated to project activities, will be working with the incremental staff financed by the project. For more details, the Project Costab and detailed budgets are available in Project files. Beneficiary contribution would cover the “in kind” contribution to the co-financing of the IDPs.; further details are described in the Project’s Operational Manual.

Annex 3: Implementation Arrangements
NICARAGUA: Caribbean Coast Food Security Project

I. Project Institutional and Implementation Arrangements

1. **Implementing Agency.** The Project implementing agency will be the Ministry of Family, Communal, Cooperative, and Associative Economy (*Ministerio de Economía Familiar, Cooperativa, Comunitaria y Asociativa*, MEFCCA). Its institutional mandate is to promote the family economy through integrated attention to micro and small rural and urban production by recognizing the capabilities of Nicaraguan families and distinct forms of participation in the national economy. To comply with this mandate, MEFCCA is organized through five general directorates covering specific themes (family & community agriculture; agribusiness/agroindustry, technological capacity development, small and medium enterprises, partnerships and cooperative development) and one Directorate that manages policies and strategies that target human development initiatives for the Nicaraguan Caribbean Coast.

2. **Project Management.** The Directorate of Family and Communal Agriculture of MEFCCA will be responsible for the Project. The Director of this Directorate, supported by the Project Coordinator and the required incremental staff, and in close coordination with the MEFCCA fiduciary divisions, will have overall responsibility for the supervision, planning, organization and implementation of all day-to-day fiduciary and technical activities of the Project, including compliance with World Bank environmental and social safeguards and overall Project M&E. For the implementation of the Project, the Directorate of Family and Communal Agriculture will promote coordination and collaborative engagement with the other relevant MEFCCA's directorates and other relevant agencies of the National System for Production, Consumption and Commerce such as the Ministry of Agriculture (MAG), INTA, Food Safety and Animal Health Institute (IPSA), and National Fisheries Institute (INPESCA) (see Table 4 below).

3. The Project team at MEFCCA's central office and in the three regional Delegations will include, at least, the following incremental staff: a Project coordinator, four nutrition specialists, three environmental specialists, three social specialists, a planning, monitoring and evaluation specialist, four technical field supervisors, four procurement specialists, a financial management specialist, a disbursement specialist, three senior accountants, and an IT specialist. Their responsibilities will be to: (i) support the MEFCCA on coordination and technical activities with all Project stakeholders; (ii) supervise the appropriate use of Project resources; (iii) liaise with the MEFCCA fiduciary divisions at the national and regional levels on procurement and financial management activities; and (iv) draft Project reports for national authorities and the World Bank. The Operational Manual includes the organizational structure of the Project and describes the activities and responsibilities of the personnel and the technical, administrative, financial, procurement, safeguards and M&E procedures.

4. **The MEFCCA Regional Delegations.** In the two autonomous regions of the Caribbean Coast, the MEFCCA is represented by three territorial offices (Delegations) located in Puerto Cabezas and Siuna (RACCN), and Bluefields (RACCS). These three Delegations carry out regular administrative and operational functions at the regional level, in addition to overseeing the implementation and execution of MEFCCA programs at the local level, including this Project.

Supported by the Project incremental staff and in coordination with the Directorate of Family and Communal Agriculture, these Delegations will manage Project technical, procurement and financial processes at the territorial level.

5. Each Delegation consists of two units: (i) Finance and Administration; and (ii) Technical Planning. The Finance and Administration Unit manages and controls all procurement and financial processes at the territorial level, while the Technical Planning Unit coordinates the operational and technical activities. For the purpose of this Project, the MEFCCA agreed to create a Procurement and Financial Management Unit in each of the three delegations covering the Project area. In addition, for the implementation of the Environmental and Social Management Framework and of the technical activities, other technical staff including two social and two environmental specialists will be hired for each of the regions (RACCS and RACCN).

6. ***Role of MEFCCA Delegations Technicians.*** There is a wide network of technicians currently working in the MEFCCA under different General Directorates. The Directorate of Family and Communal Agriculture will coordinate the technicians to support the day to day operations of the Project and, along with Project staff, help: provide technical advice to beneficiaries, disseminate Project information, supervise Project activities with the beneficiaries, train local promoters and leaders, train technicians to be contracted by producers' groups with IDP financing, promote coordination with local authorities at all levels, promote local partnerships between beneficiaries and other private sector players, and prepare progress reports for the Project, amongst other tasks.

II. Project Coordinating Mechanisms

7. ***Inter-Agency Coordination.*** The MEFCCA may engage in cooperation agreements with the agencies of the National System of Production, Consumption, and Commerce, as per their defined roles including, but not restricted to, INTA, IPSA, INPESCA, and MAG. Box 1 provides details about the system, and Table 4 details the range of possible cooperation agreements with agencies/institutions that were identified during Project preparation.

Box 1 . Areas of possible inter-agency collaboration for Project implementation

The National System for Production, Consumption and Commerce

This coordination mechanism reflects the established practice nationwide of the National System for Production, Consumption and Commerce (*Sistema de la Producción, Consumo y Comercio*). The system consists of a coordinated group of agencies under the cabinet that monitors sector policies and field activities, including those implemented by MEFCCA, and takes collective decisions.

The agencies are: the, INTA, IPSA, INPESCA, MAG, the Ministry of Development, Industry, and Trade, the Central Bank of Nicaragua and MEFCCA.

Table 4. Possible Cooperation Agreements

Component/ Activity	Description	Strategic Partnerships/Collaborative Arrangements	
1	Innovation Development Plans for Strengthening Natural and Non-Natural Resource-Based Productive and Marketing Capacity		
1.1	Investments through Innovation Development Plans (IDPs)	INTA, IPSA, INPESCA	Artisanal fishing association and fisheries plants in RACCN and RACCS; private agricultural sector companies, farmers' organizations, Ministry of Health (MINSA), Mayors
1.2	IDP preparation/implementation	INTA, IPSA, INPESCA	Regional governments in RACCN and RACCS
2	Strengthening service provision for sustainable production, food security and nutrition		
2.1	Technology generation/validation and transferring	INTA	Local and international agricultural research institutions, local Universities
2.2	Education and nutrition sensitive agriculture	MAG	MINSA, Local nongovernmental organizations working in nutrition, UNICEF, United Nations World Food Program, and Pan American Health Organization
3	Project Management, Monitoring and Evaluation	MAG, INTA, INPESCA, IPSA	Local and international Research institutions, Central Bank or Nicaragua, National Institute of Statistics (INIDE)

8. **Implementation capacity.** Institutional capacity at central and territorial levels was carefully assessed during Project preparation. Qualified technical and administrative staff is available at the central level, where incremental support by the Project would complement the established capacity. Special attention will be paid to adequately staff the safeguards and fiduciary units. Regarding the Delegations, although MEFCCA has an institutional presence in the Caribbean Coast region, this presence is limited to certain areas and with limited technical staff. The Project will therefore finance incremental costs for increasing the technical and fiduciary staff in the delegations in the area of the Project in terms of number of staff, training and equipment. In addition, the MEFCCA may enter into specific agreements, as needed, with local operators and other government agencies.

9. A National Project Coordination Committee will be the primary Project mechanism to support cross-sectoral coordination and provide strategic advice and recommendations to the MEFCCA regarding the Project. It will consist of the ministers and directors (or their delegates) of MAG, IPSA, INTA, INPESCA, Caribbean Coast Development Executive Secretariat (SDCC), Regional Governments of RACCS and RACCN, MHCP and MEFCCA, and will be chaired by MEFCCA. The committee may also invite authorities of the North and South Caribbean Indigenous Territorial Governments and municipalities within the Project area to participate in special sessions.

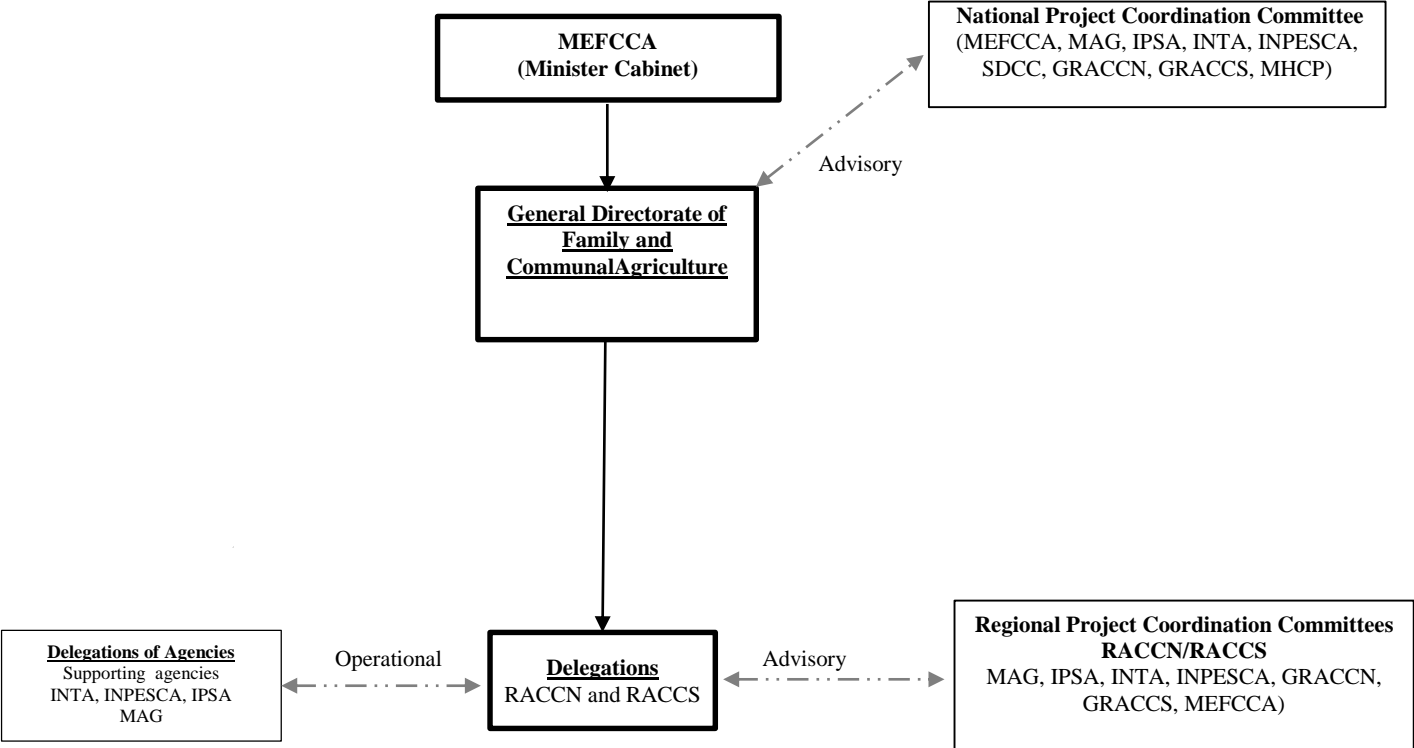
10. The National Coordination Committee will provide advice and recommendations to MEFCCA in order to: a) ensure consistency of Project activities with the objectives, policies, and strategies of the PNDH and PRORURAL-I; (b) ensure inter-institutional coordination and

collaboration around Project activities; (c) foster the necessary dialogue and analysis to support strategic decision-making by MEFCCA during Project implementation; (d) ensure timely and effective dissemination of information to key Project stakeholders and partners; and (e) ensure effective targeting of the Project activities. This committee would meet at least twice a year to review the progress.

11. ***Two Regional Project Coordination Committees.*** In a similar way, these committees will serve as a similar forum at the RACCN and RACCS level for local technical, administrative, and organizational coordination of Project activities. These committees will meet at least four times a year to provide strategic advice and recommendations to MEFCCA to ensure: (i) alignment of Project investments with regional needs, priorities and opportunities; (ii) timely implementation of Project activities; and (iii) effective monitoring of Project activities.

12. ***IDP Technical Revision Committees.*** Once proposed, the IDP technical committee will review and validate the proposals, and MEFCCA will provide its approval. These committees, whose function is technical and whose responsibility is to ensure the transparency of the process, will be established in the following MEFCCA territorial offices: Bilwi (RACCN), Las Minas (RACCN) and Bluefields (RACCS). The committees will be comprised of MEFCCA (presiding entity), and not less than three technical experts from relevant government agencies (as per the specific types of IDPs to be evaluated) operating in the region and/or technical experts from recognized institutions. The main functions of the Committee will be to: (i) analyze proposed IDPs; (ii) issue a technical recommendation to the MEFCCA on the basis of IDP evaluation and selection criteria established in the Operational Manual; (iii) provide advice to MEFCCA on IDPs' feasibility. These committees will meet at least on a monthly basis to examine batches of proposals.

Figure 1: Organizational Structure



13. ***Coordination with Regional Governments.*** While the Project is implemented through the MEFFCA, consultation with the Regional Governments will be necessary to ensure proper prioritization and coordination with local entities.

14. ***Indigenous Territorial Governments and Indigenous Communal Governments.*** Similarly, when the Project is implemented in Indigenous Territories, MEFCCA will consult and coordinate with Territorial and Communal Governments. The specific mechanisms for the engagement of these entities in Project activities are detailed in the Operational Manual.

Financial Management and Disbursement Arrangements

15. The Bank carried out a Financial Management Assessment (FMA) to evaluate the adequacy of financial management arrangements of the MEFCCA, as the implementing entity of the Project. The FMA reviewed the specific arrangements to ensure proper control, recording, and reporting of Project expenditures. Basic staffing structure, financial recording system and financial reporting, cash flow, audit arrangements, internal control system and asset management were discussed with MEFCCA during preparation and included in the Operational Manual.

16. Overall, Project design is complex mainly due to the nature of the activities to be financed. The financing of subprojects (IDPs), which would represent about 70 percent of the Grant, requires highly decentralized arrangements, including, in some cases, the disbursement of funds to beneficiaries with limited capacity for subproject (IDPs) implementation. Envisaged Project activities require sound operational arrangements, including for financial management to be maintained throughout Project life, which have been defined and are expected to be put in place in the first six months of the Project implementation. Although the MEFCCA has some experience with the World Bank-financed projects, its experience is limited to the implementation of one of the components of a recently closed project. The proposed Project will require significant strengthening at central office General Division of Administration and Finance (*Division General de Administracion y Finanzas - DGAF*) and at regional level through the Delegations. Proposed FM arrangements and especially the flow of funds arrangements are complex and may become cumbersome and cause delays in Project implementation. FM arrangements have been substantially discussed, including required mitigating measures, and are reflected in the following sections. However, it will be important that effective operation of those arrangements be carefully assessed after the first year of Project implementation. Based on these features, Project FM risk is considered substantial.

17. Proposed FM arrangements as described below are considered acceptable to the Bank and included in the approved Operational Manual reflecting the agreed financial management arrangements, including the arrangements for the implementation of IDPs. As soon as the Project becomes effective, MEFCCA will have to carry out the following tasks: (i) selection and contracting of FM staff for MEFCCA' central office and regional Delegations; (ii) design and implement the subproject module within the Integrated System for Financial Administration (SIAF) to allow recording, control and reporting on financial execution under IDPs for the provision of required financial reports; and (iii) selection and contracting of external auditors within six month after effectiveness.

18. **Organization and Staffing.** Within MEFCCA, the DGAF through its Financial Division will undertake responsibility for financial management tasks, in coordination with the Directorate of Family and Communal Agriculture and MEFCCA Regional Offices (hereinafter *Delegaciones*). DGAF is a well-established unit which has an administrative and finance team to cover basic financial management functions like budgeting, accounting and treasury. Within DGAF, teams are organized by source of financing, and in general, each team follows the same arrangements to carry out financial management tasks in relation to budgeting, accounting, disbursements, and financial reporting. At the regional level, each office is staffed with an Administrative officer and an accountant. While budgeting, accounting and financial reporting functions will be mainly managed by the Financial Division at central level; the *Delegaciones* will be actually in charge of key fiduciary functions under the IDPs. Those functions include: procurement and payments for the IDPs under modalities of Delegated Administration and Shared Administration, and follow-up on the implementation of activities and review of disbursement requests and “*rendiciones*” (Statements of Expenses) for the IDPs under the Direct Administration modality (i.e. direct transfer of funds to formalized/legalized groups of beneficiaries—cooperatives, associations, community-based organizations). To adequately fulfill these responsibilities, it has been agreed that MEFCCA’s DGAF would be strengthened with a Financial Management Specialist and an Accountant. Each one of the three Delegations involved in the Project (RACCN and RACCS) will hire a Senior Accountant. As Project implementation advances, and within the first year of Project implementation, sufficiency of fiduciary staff would be assessed and strengthened as needed.

19. Terms of reference of all positions are defined in the Operational Manual; any new selection process will follow the Bank’s selection and contracting procedures, as they are financed out of grant proceeds.

20. ***Budget Planning.*** Budget arrangements would follow the procedures established in the country. Between August and September of each year, MEFCCA has to prepare its tentative investment program for the upcoming year (including the investment program for the Project) and submit it to the Ministry of Finance for review and approval. The Project budget should be consistent with the budget policy provided by the Ministry of Finance and be incorporated into the national budget for its submittal to Congress in October. On the basis of the approved budget, the MEFCCA will adjust as needed its Project annual work plan and procurement plan, which will be reviewed by the World Bank. The Project budget will be processed, recorded and executed through Integrated System for Administrative, Financial, and Audit Management (*Sistema Integrado de Gestion Financiera, Administrativa y Auditoria - SIGFA*), country’s integrated financial management system following the established procedures. Specific budget arrangements for the disbursements to IDPs (*Administracion Directa*) and advances of funds to the Delegations have also been discussed and are reflected in the Operational Manual. At subproject level, each IDP will have a detailed investment plan which will become the basis to monitor disbursements and actual execution.

21. ***Accounting.*** Project transactions will be accounted for in SIGFA following the government accounting policies and practices. The use of SIGFA will be complemented with MEFCCA’s financial information system, SIAF, which has capability to register Project transactions by Project component/cost category, verify, control and prepare financial statements and financial reports on the cash-basis. SIAF has been used in other World Bank-financed Projects. Taking into account the nature of the Project and information needs for an adequate monitoring of IDPs, the MEFCCA

will maintain auxiliary records -in Excel or in a subproject module to be developed within SIAF- reflecting the amounts approved under each IDP, amounts disbursed and documented, including beneficiaries' contributions. Specific accounting policies and practices for the recording of disbursements made to IDPs under the "*Administracion Directa*" modality and for the advances made to the *Delegaciones* have been defined, together with the records needed at regional level for the control, monitoring and reporting of payments out of those advances (e.g. expenditures paid under IDPs).

22. **At the IDP level** under the "*Administracion Directa*" (Direct Administration) modality, it has been agreed that simplified physical and financial reports will be required to be submitted by the beneficiaries accompanied with minimum supporting documents. Such requirements and related templates will be included in the IDPs Manual, as annex to the Operational Manual.

23. **Processes and procedures.** Overall, the MEFCCA has to comply with local requirements related to administrative and control systems (Law 550), which are mainly integrated into the operation of SIGFA, as they relate to budget preparation and execution. Considering the Project needs and the level of interaction required with *Delegaciones* and beneficiaries, the MEFCCA is working on detailed processes and procedures, key controls, instruments and monitoring tools for IDPs (subprojects) implementation, including the definition of documents required to process payments. Overall, those procedures provide for clear roles and responsibilities for MEFCCA's central level, *Delegaciones* and IDPs' beneficiaries, as well as adequate segregation of duties in terms of authorization, recording and approval of payments and disbursements. However, the interaction between MEFCCA central office and *Delegaciones* may become cumbersome and delay Project implementation because of some duplication in some of the reviewing and approving layers. A thorough review of the effectiveness of those arrangements will be carried out within the first year of Project implementation to identify any required adjustments.

24. Agreed procedures including budgeting, accounting, payments, support documentation, accounts reconciliation and financial reporting will be reflected in the Project Operational Manual. For IDPs (subprojects), the Operational Manual includes a separate section specifying the procedures of authorization, control and follow up, record keeping (hand-written record of receipts), minimum documentation requirements, and preparation of progress reports (physical and financial).

25. **Financial Reporting.** The MEFCCA's DGAF will be responsible to prepare financial information on a semi-annual basis and submit it to the Bank as Interim Financial Reports (IFRs) containing: i) sources and uses of funds, reconciling items (e.g advances to *Delegaciones*), and cash balances, with expenditures classified by Project component/cost category; ii) a statement of investments reporting the current semester and the accumulated operations against ongoing plans, as well as footnotes explaining the important variances; and iii) a subproject Statement which shows amount disbursed, as well as documented and outstanding balances, to allow for timely monitoring. The reports would include grant proceeds, and local funds (subproject contributions) as well as in-kind contributions, to the extent these can be reasonably measured and documented. The reports would be prepared in local currency and US dollars. The IFRs would be submitted no later than 45 days after the end of each semester for the World Bank's review. Format and content of the IFRs has been substantially discussed with MEFCCA, and they are expected to be produced by SIAF.

26. On an annual basis, MEFCCA’s DGAF will also prepare Project financial statements including cumulative figures, for the year and as of the end of the country’s fiscal year (December 31). All documentation for consolidated SOEs would be maintained for post review and audit purposes for up to three years after the closing date of the Project, or for 18 months after receipt by the World Bank of an acceptable final financial audit, whichever is the later.

27. **External Audit.** An external, independent, private audit firm, acceptable to the World Bank under defined Terms of Reference approved by the Bank will be contracted by MEFCCA for the entire life of the Project no later than six months after the grant’s effectiveness. The audit firm will review and provide an opinion on the Annual Financial Statements of the Project, covering the fiscal year (which coincides with the calendar year). External audit will include a review of the three involved *Delegaciones* and a sample of IDPs (subprojects) with the main purpose of verifying compliance with established procedures as well as reviewing compliance with agreed Investment Plans under respective IDPs. The audited financial statements shall be presented to the World Bank no later than six months after the end of the fiscal period. According to the Bank Policy 10.00, Audited Financial Statements will be made public, as established in the IDA General Conditions. Specific annual audit requirements include:

Audit type	Due date
Project financial statements	June 30
Special Opinions – SOE	June 30
Management Letter	June 30

28. **Flow of funds.** Following the general practice of the current portfolio, the following disbursement methods may be used to withdraw funds from the grant: (i) reimbursement, (ii) advance, and (iii) direct payment. Under the advance method, a Designated Account (DA) will be opened in the Nicaragua Central Bank (*Banco Central de Nicaragua*) under the name of the Project. Funds deposited into the DA as advances would follow the World Bank’s disbursement policies and procedures, as described in the Grant Agreement and in the Disbursement Letter (DL). Following the current practices, advances made to the DA would be documented through the use of Statements of Expenditures (SOEs) and supporting documents defined in the DL. The following table specifies the categories of Eligible Expenditures that may be financed by the Project:

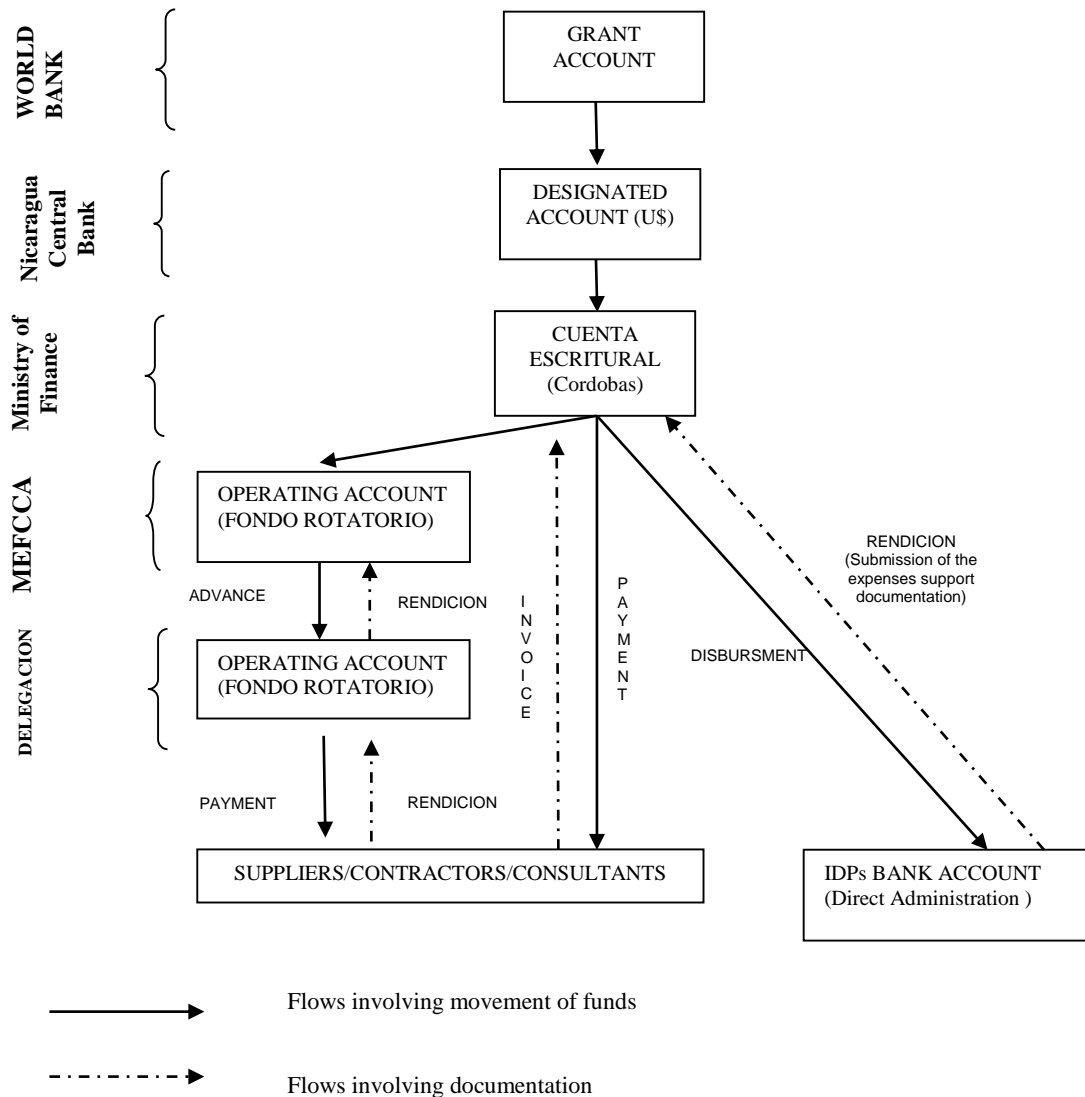
Table 5. Disbursement Categories

Category	Amount of the Grant Allocated (USD)	Percentage of Expenditures to be Financed (inclusive of Taxes)
(1) Goods, works, Non-Consulting Services, and consultants' services, Operating Costs and Training Parts 1(e), 2 and 3 of the Project	11,300,000	100%
(2) Goods, works, Non-Consulting Services, consultants' services, Operating Costs and Training for IDP Subprojects under parts 1(a), 1(b), 1(c) and 1 (d) of the Project	22,600,000	100%
TOTAL AMOUNT	33,900,000	

29. The ceiling for advances to be made into the DA would be US\$2,500,000. Documentation of eligible expenditures paid out of the DA is expected to be on a quarterly basis. The supporting documentation requirements to document Project expenditures (thresholds for the use of SOE), as well as the minimum value for direct payments and reimbursements will be defined in the Disbursement Letter. Figure 2 below, indicates the flow of funds mechanisms to be used for the Project:

30. *Disbursements from the World Bank to MEFCCA Central Office.* Under the advance method, grant proceeds would be disbursed from the Grant Account to the Designated Account in US dollars opened in the Central Bank of Nicaragua. Funds deposited into the DA will be transferred to the “*Cuenta Escritural*” in local currency from which payments will be made to contractors, suppliers and consultants, all managed by the MEFCCA central office.

Figure 2. Disbursement mechanisms for the Project



31. **Disbursement under component 1 – IDPs.** Flow of funds for IDPs would depend on the administration modality defined for each subproject, as follows:

32. IDPs under “*Administracion Directa*”. Funds would be disbursed from the “*Cuenta Escritural*” managed by the MEFCCA central to the Beneficiaries’ bank account, based on the disbursement request and programming submitted by the beneficiaries, as reviewed and approved by MEFCCA. Disbursement received would be periodically documented through a physical and financial progress report following the arrangement defined in the Operational Manual.

33. The IDPs under “*Administracion Delegada*” or “*Administracion Compartida*”. Under these modalities, payments for activities under the IDPs would be managed and processed by the Delegations. To that end, and in compliance with local treasury requirements, MEFCCA central

office would withdraw funds from the *Cuenta Escritural* to establish a Revolving fund (Operating Account) from which funds would be transferred into a specific bank account opened and maintained by each of the Delegations in a commercial bank for Project purposes. Funds transferred to the Delegations on a periodic basis, as advances, would then be used to process payments to contractors and suppliers for IDP activities. Advances received by the Delegations would be documented on a monthly basis in accordance with established procedures.

34. **Financial Management Action Plan.** An Action Plan to ensure that adequate FM systems are in place before Project implementation begins is currently being undertaken by DGAF, as follows.

Table 6. Action Plan for MEFCCA

Action	Responsible Entity	Completion Date ²⁴
1. Contract individual external audit based on TORs and short list satisfactory to the World Bank for the entire implementation period of the Project.	MEFCCA DGAF	Six months after effectiveness.
2. Draft Operational Manual reflecting agreed FM procedures including detailed processes and procedures, key controls, instruments and monitoring tools for IDPs (subprojects) implementation.	MEFCCA DGAF	Completed by Negotiations (December 2, 2014)
3. Design and implement in SIAF a Subproject module for the recording and control of IDPs.	MEFCCA	March 2015.
4. Provide specific training in FM & Disbursements for Project FM Staff	World Bank	Before Project implementation starts

35. **World Bank FM Supervision Plan.** A World Bank FM Specialist will complete a supervision mission prior to Project’s effectiveness to verify the implementation of the action plan and review all FM arrangements for the Project. After effectiveness, the FM Specialist would review the annual audit report, the financial sections of the semiannual IFRs including a monthly reconciliation of accounts, and perform at least two complete supervision missions per year. This supervision strategy will be reviewed periodically and adjusted based on performance and risk.

Procurement

A. General

36. Procurement for the Project will be carried out in accordance with the World Bank’s “Guidelines Procurement of Goods, Works and Non-Consulting Services under IBRD Loans and IDA Credits and Grants by World Bank Borrowers,” dated January 2011 and updated on July 2014; the World Bank’s “Guidelines Selection and Employment of Consultants under IBRD Loans and IDA Credits and Grants by World Bank Borrowers,” dated January 2011 and updated on July

²⁴ This column presents the estimated completion date, and is not an indication of legal conditions.

2014; and the provisions stipulated in the Grant Agreement. For each contract to be financed by the Grant, the different procurement methods or consultant selection methods, the need for prequalification, estimated costs, prior review requirements, and timeframe will be agreed between the Borrower and the World Bank in the Procurement Plan.

- (a) **Procurement of Works.** No International Competitive Bidding (ICB) contracts are expected in the Project. Small works contracts will be procured following National Competitive Bidding (NCB) and Procurement of Small Works (Shopping) processes, using Standard Bidding Documents (SBDs) and simplified formats, respectively, agreed with or satisfactory to the World Bank. The SBDs and simplified formats are included in the Operational Manual.
- (b) **Procurement of Goods.** Goods procured under the Project would include inter alia vehicles, motorcycles, computer equipment and software, office equipment and field and laboratory equipment. The World Bank's SBD will be used for all ICB, and National SBD acceptable to and agreed with the World Bank for all NCB. For procurement of small value goods, shopping procedures will be followed using a Request for Quotations acceptable to and agreed with the World Bank and in accordance with paragraph 3.5 of the Procurement Guidelines.
- (c) **Procurement of Non Consultant Services.** Logistics for capacity-building events, printing of training materials, media campaigns, and related services will be procured as non-consultant services. The World Bank's SBD will be used for all ICB, and National SBD acceptable to and as agreed with the World Bank for all NCB. For procurement of small value non-consulting services, shopping procedures will be followed using the Request for Quotations documents acceptable to and agreed with the World Bank.
- (d) **Selection of Consultants.** Contracts for employment of consultants will include services for different types such as designs, supervision, TA, and audits. Selection methods for consultants would include: QCBS, QBS, FBS, LCS, QCS and SSS. Selection and contracting of consultant firms will be done using the World Bank's Standard Request for Proposals (SRfP). Selection and contracting of Individual Consultants will be done using a simplified request for curriculum vitae and a contract model agreed with or acceptable to the World Bank. Contracts for employment of individuals will include technical, operational and administrative staff. Considering the substantial risks associated with the selection of large numbers of individual consultants, MEFCCA shall include in the Operational Manual a procedure to check the authenticity of the experience and education claimed by the consultants in its expression of interest and curriculum vitae.
- (e) **Operational Costs.** The Project will finance Operational Costs consisting of expenses required for managing and supervising the Project, such as office supplies and consumables; utilities, internet, maintenance of vehicles and equipment; car and equipment insurance; travel; subsistence; and per diems. These items will be procured using procedures described in the Operational Manual.
- (f) **Sub-Project – IDP.** IDPs are CDD²⁵-type activities. Procurement under IDP will be carried out by MEFCCA and its delegations of Las Minas and Puerto Cabezas (RACCN), Bluefields (RACCS), and by formalized/legalized groups of

²⁵ CDD – Community-driven Development projects

beneficiaries. Eligible expenditures under IDP will include small works, construction materials, vehicles, equipment, engines, fuel, tools, TA, consultants and non-consultants services and operational costs, as detailed in the Operational Manual.

B. Assessment of the Implementing Agency’s Capacity to Carry Out Procurement

37. Procurement activities would be carried out by the Procurement Division of MEFCCA. Procurement under IDP will be conducted following three different mechanisms: (i) delegated administration by MEFCCA (Central Office or through the offices of RACCN, RACCS); (ii) shared-administration, in which the procurement decisions are taken by the beneficiary groups and payments are done by MEFCCA; and (iii) direct transfer of funds to formalized/legalized groups of beneficiaries (cooperatives, associations, community-based organizations, etc.) after compliance with a capacity assessment to carry out Procurement activities conducted by MEFCCA.

38. As part of the preparation of the Project an assessment of the MEFCCA capacity to implement procurement actions was conducted before appraisal. The assessment looked into: (i) organizational structure, (ii) facilities and support capacity, (iii) qualifications and experience of the staff that would work in procurement, (iv) record-keeping and filing systems, (v) procurement planning and monitoring/control systems used, and (vi) capacity to meet the Bank’s procurement contract reporting requirements. The Procurement Division is adequately staffed and equipped to undertake the activities routinely carried out by the Division; however, the requirements of the Project will exceed its current capacity

39. The key issues and risks concerning procurement for implementation of the Project include: (i) the expected volume of workload could surpass MEFCCA capacity; (ii) variety and complexity of procurement to be carried out for Project implementation; and (iii) low market’s capacity. The corrective measures which have been agreed are presented in Table 7:

Table 7. Corrective measures to address procurement capacities

MITIGATING MEASURES		STAGE
Preparation of a comprehensive General Procurement Plan	MEFCCA	Completed
Final Operational Manual. The Operational Manual (s) shall include: <ul style="list-style-type: none"> - Capacity assessment methodology for beneficiary which will be conducted by MEFCCA (to be updated) - Eligible expenditures under IDPs (done) - Procurement methods (including those that will apply under IDPs) (done) - Templates for IDPs (procurement plan, request for quotations, contracts, etc.) (to be updated) - Supervision arrangements for IDPs (to be updated) - Audit arrangements (to be updated) 	MEFCCA	Completed
Preparation of a comprehensive, detailed Procurement Plan for the first 18 months of Project execution	MEFCCA	Completed
Establishment of SEPA as the system to monitor and expedite Procurement Plans	MEFCCA / World Bank	After Grant effectiveness

MITIGATING MEASURES		STAGE
Preparation of Terms of reference for the Annual Procurement Audits.	MEFCCA	Before effectiveness
Preparation of Bidding Documents, Terms of Reference and Request for proposals for the first year of implementation	MEFCCA	According to the Procurement Plan
MEFCCA will hire a Procurement Specialist	MEFCCA	Before initiating any procurement process
MEFCCA will hire three Procurement Specialists, one for each Delegation	MEFCCA	Before IDPs implementation

40. The overall Project risk for procurement is rated *Substantial (S)*, considering the agency's capacity to implement procurement and overall complexity of the Project design, in particular with respect to IDPs. The level of risk for the Project will be reassessed once there is evidence that the above-mentioned mitigating measures have been implemented.

41. MEFCCA prepared a detailed and comprehensive Procurement Plan, which includes all contracts for which invitations for bids and proposals will be issued in the first 18 months of Project implementation. The Procurement Plan will be available in the SEPA.

Annual Procurement Audits

42. MEFCCA shall: (i) have all the procurement records and documentation for each fiscal year of the Project audited, in accordance with appropriate procurement audit principles, by independent auditors acceptable to the Bank; (ii) furnish to the Bank as soon as available, but in any case not later than six months after the end of each such fiscal year, the procurement audit report of such audit by said auditors of such scope and in such detail as the Bank shall reasonably request and; (iii) furnish to the Bank such other information concerning said procurement records and documentation and the procurement review thereof as the Bank shall from time to time reasonably request. The Procurement Audit shall include in its scope the review of the IDPs to confirm that funds have been spent on the intended purpose and that the principle of value for money is fully respected.

C. Procurement Special Provisions

43. In addition and without limitation to any other provisions set forth in this section, the Procurement Guidelines or the Consultant Guidelines, the following principles of procurement shall expressly govern all procurement of works, goods, non-consulting services or consultants' services, as the case may be:

- (i) foreign bidders shall not be required to be registered with local authorities as a prerequisite for bidding;
- (ii) no bids shall be rejected, and no provisional awards shall be made at the time of bid opening;
- (iii) the invitation to bid shall not establish, for purposes of acceptance of bids, minimum or maximum amounts for the contract prices;
- (iv) the invitation to bid shall not publish the estimated cost of the contract;

- (v) in the case of Shopping, a minimum of three quotations shall be obtained as a condition to award the contract;
- (vi) unless the Association may otherwise agree, for the procurement of goods and non-consulting services, the “best offer” shall be the one submitted by the bidder whose offer was determined to be the lowest evaluated bid and was found substantially responsive to the bidding document acceptable to the Association, provided further that the bidder was determined to be qualified to perform the contract satisfactorily;
- (vii) bidders and consultants shall not be allowed to review or make copies of other bidder’s bids or consultants’ proposals, as the case may be. Likewise, bidders’ and consultants’ responses to requests of clarifications made by the procuring entity during the bidding process shall not be disclosed to other bidders or consultants, as the case may be. Finally, reports including recommendations for award shall not be shared with bidders and consultants prior to their publication;
- (viii) eligibility criteria shall be the one defined in Section I of the Procurement Guidelines and Consultant Guidelines. Articles 17 and 18 of the Procurement Law shall not apply;
- (ix) automatic rejection of bids or proposals, as the case may be, due to differences between bid or proposal prices and cost estimates being higher than predetermined percentages, shall not be allowed;
- (x) bidders shall have the possibility of procuring hard copies of bidding documents even if they are published on the procurement portal;
- (xi) unless so indicated in the applicable Bank Standard Bidding Documents, pre-bid conferences shall not be conducted;
- (xii) bid preparation terms shall not be reduced as a result of re-bidding;
- (xiii) consultants shall not be required to submit proposal and performance securities;
- (xiv) complaints shall be handled as indicated in the appendixes to the Procurement Guidelines and Consultant Guidelines. Articles 110 to 116 of the Procurement Law shall apply in a supplementary manner;
- (xv) the procurement of goods and works shall be carried out using standard bidding documents acceptable to the Association;
- (xvi) the Recipient, shall: (i) supply the Procurement Plan Execution System (SEPA) with the information contained in the initial Procurement Plan within 30 days after the Project has been approved by the Association; and (ii) update the Procurement Plan at least every three months, or as required by the Association, to reflect the actual Project implementation needs and progress and shall supply the SEPA with the information contained in the updated Procurement Plan immediately thereafter; and
- (xvii) the invitations to bid, bidding documents, minutes of bid opening, requests for expressions of interest and the pertinent summary of the evaluation reports of bids and proposals of all goods, works, non-consulting and consultants services shall be published in the Government contracting system (SISCAE; *Sistema de Contrataciones del Estado*) in a manner acceptable to the Association. The bidding period shall be counted from the date of publication of the invitation to bid or the date of the availability of the bidding documents, whichever is later, to the date of bid opening.

D. Procurement Plan

I. General

Bank’s approval Date of the Procurement Plan: *December 2, 2014*

Date of General Procurement Notice: *February 27, 2015 (planned)*

Period covered by this Procurement Plan: *18 months*

II. Goods, Works and non-consulting services.

44. **Prior Review Threshold.** Procurement Decisions subject to Prior Review by the Bank as stated in Appendix 1 to the “Procurement of Goods, Works and Non-consulting services by World Bank Borrowers”:

Thresholds for procurement methods and prior review (thousands of US\$)			
Expenditure Category	Contract Value (Thresholds) US \$ thousands	Procurement Method	Contracts Subject to Prior Review
1. Works	>5,000	ICB	All
	150 – 5,000	NCB	First
	<150	Shopping	First
	NA	DC	All
2. Goods	>500	ICB	>350
	50 - 500	NCB	First
	<50	Shopping	First
	NA	DC	All
Note:	ICB = International Competitive Bidding NCB = National Competitive Bidding DC = Direct Contracting		

45. **Reference to Project Operational/Procurement Manual.** MEFCCA prepared an Operational Manual which provides detailed procurement information for Project implementation.

Summary of the Procurement Packages for Works and Goods

(Based on Procurement Plan of October 21, 2014)

1	2	3	4	5	6	7
Ref. No.	Description	Estimated Cost US\$ million	Packages	Domestic Preference (yes/no)	Review by Bank (Prior/Post)	Comments
1	Summary of NCB (Works)	0,275	1	No	First	NA
2	Summary of NCB (Goods)	1,008	7	No	First two	NA

1	2	3	4	5	6	7
Ref. No.	Description	Estimated Cost US\$ million	Packages	Domestic Preference (yes/no)	Review by Bank (Prior/Post)	Comments
4	Summary of Shopping (Works)	0,075	1	No	First	NA
5	Summary of Shopping (Goods)	0,219	6	No	First two	NA
6	Summary of Shopping (Non-consultant services)	0,132	5	No	NA	NA

III. Selection of Consultants

46. **Prior Review Threshold.** Selection decisions subject to Prior Review by Bank as stated in Appendix 1 to the Guidelines Selection and Employment of Consultants:

Thresholds for methods and prior review (thousands of US\$)			
Consulting Services	Contract Value (Thresholds) US \$ thousands	Procurement Method	Contracts Subject to Prior Review
3.a Firms	>100	QCBS, QBS, FBS, LCS	>200; <200 Terms of Reference
	<100	QCBS, QBS, FBS, LCS, CQS	Terms of Reference
	<100	SSS	All
3.b Individuals		Comparison of 3 curriculum vitae in accordance with Chapter V of the Guidelines	>100; <100 Terms of Reference
		Single-source procedures for the Selection of Individual Consultants	All
Note:	QCBS = Quality- and Cost-Based Selection QBS = Quality-Based Selection FBS = Fixed Budget Selection LCS = Least-Cost Selection CQS = Selection Based on Consultants' Qualifications SSS: Single Source Selection		

47. **Short list comprising entirely of national consultants.** Short list of consultants for services, estimated to cost less than US\$300,000 equivalent per contract, may consist entirely of

national consultants in accordance with the provisions of paragraph 2.7 of the Consultant Guidelines.

Consultancy Assignments with Selection Methods and Time Schedule

(Based on Procurement Plan dated December 2, 2014)

1	2	3	4
Ref. No.	Description of Assignment	Number	Estimated Cost US\$ million
1	Summary of number of contracts that will be let under QCBS	5	0,570
2	Summary of number of contracts that will be let under CQS	2	0,060
3	Summary of number of contracts that will be let under Individual Consultants (IC)	38	3,182

48. In addition to the external Audit, the capacity assessment of the Implementing Agency has recommended annual supervision missions to visit the field to carry out post review of procurement actions. The size of the sample for post-review will be not less than 1 in 10 contracts.

Environmental and Social

Environmental

49. Regarding environmental management and safeguards needs, the Project is classified as Category B and requires a partial Environmental Assessment. The Project is designed to have an overall positive environmental impact through promotion and application of climate-smart agriculture and sustainable production/fishing practices. This will be done through capacity building, TA, provision of tools and equipment, and potential small investments. The eligible activities are small scale and of dispersed nature, including potential minor infrastructure works, such as fish ponds and collecting and storage facilities that will be financed based on demand. Consequently, the Project is not expected to cause negative large-scale or irreversible environmental impacts. Instead, it has a remarkable potential for environmental value added. This potential will be promoted through a special emphasis on socially appropriate capacity building and TA (e.g. agro-silvopastoral systems).

50. Despite the Project's direct positive environmental impact, its environmental risk is considered substantial as it promotes improved gains from agricultural production and could thus cause undesirable indirect impacts. The Project area suffers from on-going environmental degradation due to the rapidly advancing agricultural frontier and other adverse land use changes that are partly induced by immigrants from other parts of the country seeking short-term economic gains. Further, negative impacts of increasing climate variability and the overall low technical capacity amongst the population add to environment-related Project risks. Therefore, it is critical

that environmental sustainability, climate-smart, and use of locally validated good practices are key factors in designing and approving IDPs and planning for the related capacity building and TA. Sustainable forestry does not belong to the core activities financed by the Project. However, given the local context with presence of protected areas and the threats of expanding agricultural frontier, raising awareness and capacity building on sustainable forestry and use of non-timber forest products will be embedded in the IDP designs. Due to challenging socio-environmental management requirements and lack of support at the community level, financing palm oil production with Project funds will not be eligible. This is reflected in the Operational Manual.

51. As described in further detail in the Project's Integrated Safeguards Data Sheet, the Project triggers five environmental safeguard policies: Environmental Assessment (OP/BP 4.01), Natural Habitats (OP/BP 4.04), Forests (OP/BP 4.36), Pest Management (OP 4.09), and Physical Cultural Resources (OP/BP 4.11). To implement these safeguards, the Project will be guided by an ESMF. The ESMF preparation and the included partial EA have been the responsibility of an inter-institutional technical group led by the MEFCCA, and composed of MAG, INTA, and INPESCA, and supported by the World Bank. The partial EA entailed desk review and field visits to RACCN and RACCS to identify the Project's potential environmental impacts, both negative and positive, assess existing knowledge and capacity level, and identify relevant stakeholder needs and recommendations, as well as lessons learned from similar Projects in the two regions.

52. The ESMF has been prepared to address the above environmental safeguard policies and to facilitate timely integration of socio-environmental aspects into the overall IDP cycle and spell out related responsibilities and resource needs, including a negative list to prevent harmful impacts (e.g. deforestation related to expansion of croplands or pastures), guidelines for the use of good practices and standardized mitigation measures for the main environmental impacts per productive subsectors. To further guide concrete implementation on the ground, the initial ESMF implementation will include preparing a regional and user-adapted Manual for Good Environmental Practices, including guidance e.g. for climate-smart agriculture and sustainable fishing/aquaculture practices. This manual will be prepared by the MEFCCA, with technical support of the cooperation entities, during the first year of the Project implementation. The ESMF also covers monitoring of the Project's environmental management and key results in terms of adoption of good practices. This monitoring will link closely with related core indicators in the Project's results framework, yet adding a more detailed view to particularly environmentally friendly and climate-smart practices. The ESMF embeds a continuous learning and improvement process. Public consultations on the draft ESMF were carried out in Bilwi, Waspam, Siuna, Kukra Hill, Laguna de Perlas and Bluefields between April and October, 2014, as documented in detail in the ESMF. The ESMF, including the IPPF, was disclosed in-country and by the Bank InfoShop on November 25, 2014. See further details on the consultations under the following section on the Project's social management.

53. The General Directorate of Family and Communal Agriculture will be responsible for ensuring compliance with the ESMF. To promote its efficient implementation, the Project will recruit two environmental specialists, one in the MEFCCA delegation in Bilwi (RACCN) and the other in the MEFCCA delegation in Bluefields (RACCS). At the central level, the Environmental Unit of MEFCCA will nominate a full time environmental specialist to coordinate the related Project activities. The environmental specialists of MEFCCA will be supported by the Environmental Units of the cooperation entities that MEFCCA will have agreements with (e.g.

MAG, INTA, INPESCA and IPSA). The terms of reference for these specialists are included in the ESMF. At Project mid-term, the Project will contract an external environmental audit, as deemed necessary.²⁶

Social

54. Given the MEFCCA's limited experience with World Bank social and environmental policies, the World Bank agreed with MEFCCA on the methodology and scope of the required Environmental and Social Impact Assessment (ESIA) early during the Project design phase. MEFCCA elected to assign the ESIA task to a team of in-house environment and social specialists working for the various coordinating agencies (i.e. MAG, INTA, INPESCA, etc.). The World Bank actively engaged with the MEFCCA social and environmental team throughout the ESIA process to refine the data collection and analysis instruments, consultation schedules and the disclosure of the final product - the Environment and Social Management Framework.

55. One of the key findings of the Social Assessment is that the Project will operate within multiple complex social, geographic and political orders. This presents a substantial risk that local elites could attempt to capture Project benefits thereby preventing the poorest from participating in the design of the IDPs that are expected to contribute to enhance their food and nutritional security. To manage this risk, the Project will implement: (i) a communications and public engagement plan to improve access to and feedback about Project related information and activities; and (ii) a participatory IDP design process with opportunities for beneficiary inputs at key decision points. Furthermore, there will likely be considerable pressures from community leaders and local beneficiaries for the Project to achieve quick results, which in turn could lead to disappointment and contention if such expectations are not met. The Project will also use feedback mechanisms such as local radio talk shows in order to understand evolving expectations during implementation, and to address these in a proactive manner.

56. OP 4.10 on Indigenous Peoples will apply, as roughly 20 percent of eligible beneficiaries are likely to be indigenous. As the exact nature and location of the Project funded activities within the selected 15 municipalities will only be determined during Project implementation, an IPPF was prepared. The IPPF will assist MEFCCA to determine whether Indigenous Peoples are present in any of the Project areas, and if so, to ensure that the interested communities support the proposed activities as well as any additional measures required to maximize their culturally appropriate benefits and/or avoid potentially adverse impacts. A draft IPPF was presented during regional public consultations with potential beneficiaries in Siuna, Waspam and Bilwi in RACCN, Kukra Hill and Bluefields RACCS. Participants raised concerns during these consultations including the range of eligible productive activities, the role of local officials in the administration of Project funding, and the need for complementary investments in access roads, communications and capacity building. These concerns have been addressed by the inclusion of broad sectorial eligibility requirements, inviting local officials to participate in the Regional Coordination

²⁶ The need for an environmental audit will be evaluated based on the quality of the overall environmental support for and monitoring of the Project activities during implementation and the level and type of challenges faced by the Project's environmental management.

Committees, and coordinating the locations of Project investments with other World Bank and development partner investments in the region.

57. The MEFCCA will contract three additional social specialists to assist with implementation of the ESMF; two specialists will be based in each of the regional technical delegations and one specialist will support monitoring and evaluation of the proposed Project's social impacts and mitigation measures from MEFCCA's national office in Managua. Due to the limited physical footprint of the proposed investments, no land acquisition or displacement of assets will be required. All TA and investments will be restricted to either lands privately owned by the participating producers and/or unoccupied municipal or communal lands. The MEFCCA will use the ESMF Operational Manual to screen out any potential activities that could require land acquisition.

Gender Inclusion

58. The Project will support the GON's efforts to promote gender equity in the agricultural sector. In the first year of implementation, a Gender Strategy will be prepared based on an initial Gender Assessment that will analyze the factors that may enable or limit gender equity in the context of the different groups of beneficiaries. This gender assessment will assess the following questions (among others): (i) different roles and responsibilities of women and men in rural enterprises/farming; (ii) differences in access to financing and productive inputs; (iii) differences in access to information about programs and initiatives; (iv) differences in access to markets; (v) gender-specific constraints related to empowerment, self-esteem, and agency that might limit women from actively seeking such opportunities, pursue access to services and participate actively in decision making at the community level; (vi) prevalent gender roles and norms that might construct barriers for women in their communities to take active roles in productive activities or public roles in their communities; (vii) gender-differences in access to services; and (viii) potential of involving men also in communication and raising awareness activities related to family nutrition.

59. The results will inform strategies the Project will build on to address and remove gender-specific barriers that are hindering the realization of opportunities for better economic and food and nutritional outcomes in the beneficiary communities. The Gender Strategy will mainstream gender across the IDP cycle and other supporting activities, and empower women beneficiaries by raising their awareness of and participation in Project activities. Reflecting on the country's gender-sensitive legislation, the Project will seek to benefit women broadly through the IDP investments, business development services, and organization of entrepreneurial groups.

60. The Project will seek to promote gender equality through several actions including: (i) ensure women's and men's equal participation in local producer groups; (ii) improve their access and application of technologies and information; and (iii) provide opportunities for non-farm income generation. The Project will track the impacts of investments on women and men and measure the progress of women's achievements as compared to men's.

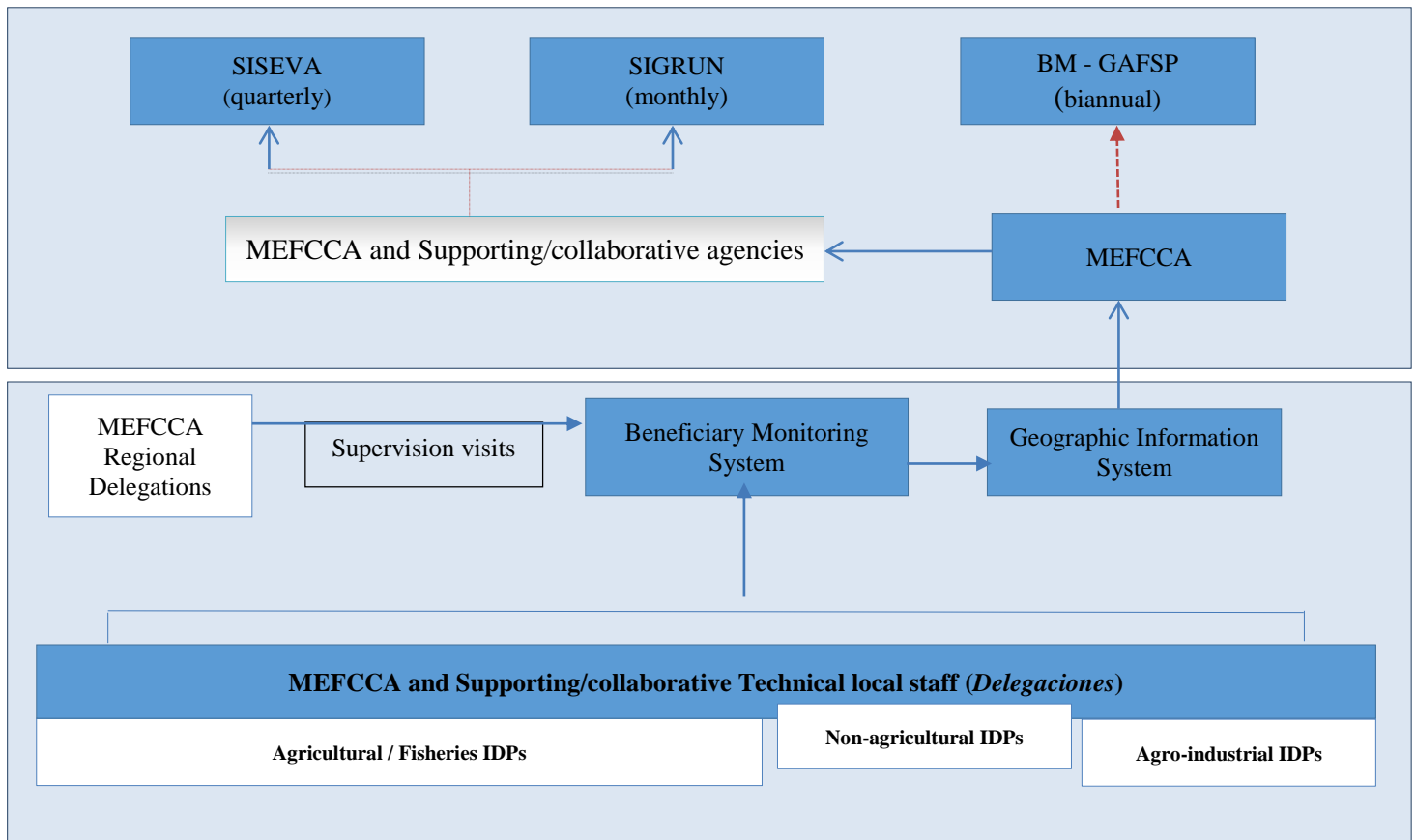
Monitoring and Evaluation

61. The M&E activities will be carried out by the Project staff of the MEFCCA and, if MEFCCA decides so, through cooperation agreements with other agencies. Component 3 will support Project management and M&E. The Project's BMS will be part of MEFCCA's M&E system and will be used to collect data to measure Project performance, results, and outcomes. The M&E system will focus on capturing benefits for target populations, disaggregated by gender. The MEFCCA, as the implementing agency, will be responsible for hiring/commissioning and supervising the following tasks: (i) Project baseline (to be completed during the first semester of Project implementation), (ii) technical and other studies on Project performance, (iii) final independent evaluation, and (iv) rapid impact evaluation.

62. The Project Annual Operating Plans will be key tools to monitor timely execution of Project activities. Both the central and regional offices will be responsible for updating the status of implementation of these plans and their direct results (see Figure 3). Achieving the Project objective will largely rely on successful implementation of the IDPs under Component 1. Therefore, the BMS will be developed as a simple, effective instrument that monitors progress and outcomes in a participatory fashion with all relevant stakeholders (beneficiaries, technicians of partner agencies, etc.). Eventually, the information will be uploaded to the MEFCCA web-based platform and accessed by external users to guarantee transparency of the process.

63. The implementation/operation of the BMS will build on existing local capacities (e.g., through engaging local universities). The BMS will provide continuous tracking of the implementation progress of the IDPs and other Project activities, including physical and financial advances, and managerial information. The entire IDP life-cycle process will be monitored and it will be linked to the Geographic Information System (see figure below), which in turn will feed into the GAFSP geo-reference mapping system. Regional Delegation officers from MEFCCA will be responsible for ensuring the quality and timeliness of the information, including survey results, to be entered into the BMS and feeding this information into SISEVA and SIGRUN.

Figure 3: Monitoring and Evaluation Responsibilities



64. *Gendered Performance Monitoring.* The Project has included specific nutrition-related activities targeted to women and men and will ensure that gender-related considerations are included when developing IDPs and when assessing Project benefits for women. The Project M&E approach will focus on capturing the benefits for targeted populations, disaggregated by gender. Through sex disaggregated data, the Project will track the benefits of investments on women and men and measure the progress of women’s achievements as compared to men’s. For household level indicators, data will be disaggregated by “gender household (HH) types” – that is: (i) HH with male and female adults, (ii) HH with male adult, no female adult, and (iii) HH with female adult, no male adult. This categorization is somewhat different than the standard “male-headed vs. female-headed” households, and the distinction and change is very meaningful. The concept of “head of household” presumes certain characteristics that may or may not be present in household gender dynamics, and often reflects the bias of the researcher or respondent. In addition, the head of household concept may perpetuate existing social inequalities and prioritization of household responsibilities that may be detrimental to women. Although this change is significant conceptually, it will not require major modifications in how data is collected – only how it is categorized and reported into a database.

65. *Strategic Communication on Monitoring and Evaluation Findings.* The Project will systematically analyze findings garnered through M&E to improve procedures, adjust incentives as needed, and help identify inadequate performance (deviations from plans, beneficiary

dissatisfaction, or weaker than expected linkage between inputs, outputs, and objectives) and take timely remedial measures. Reporting will be done every six months and include evidence of learning. Related to public disclosure (transparency and openness), the Project is also committed to sharing progress with development partners and the general public, potentially through the MEFCCA website <http://www.economiafamiliar.gob.ni/>.

66. *Geo-referencing of Project activities at the sub-national level.* By the end of the first year of implementation, Project activities will be geo-coded onto a map overlaid with key Project indicators. The geospatial information and development indicator data will be accessible through an existing Mapping for Results Platform and will be embedded in the GAFSP website.

67. *Project Baseline and Impact Evaluation.* A baseline will be undertaken during the first six months of Project implementation. This exercise will determine the prevailing socio-economic and cultural factors among the inhabitants in the Caribbean Coast region, as well as key information related to Project indicators. At the end of the Project, a non-experimental rapid impact evaluation will be carried out by a recognized research entity with a track record of conducting such studies.

Annex 4: Implementation Support Plan
NICARAGUA: Caribbean Coast Food Security Project

1. **The strategy for Project Implementation Support by the World Bank reflects the nature of the Project and its risk profile.** The strategy seeks to make implementation support more efficient to the client while remaining focused on implementation of the risk mitigation measures identified in the SORT. The strategy is also an indicative and flexible instrument which will be revisited during Project implementation and as part of the Implementation Status and Results Report reviews and adjusted based on emerging Project challenges and field conditions.
2. **Overall Project management.** Project supervision will support the following areas: (i) fiduciary capacity to promote the establishment of adequate internal control systems and overall governance; (ii) IDP process and IDP support services; (iii) mitigation of potential political interference to maintain strong technical capacity, alignment with Project objectives, and due diligence; (iv) M&E of Project implementation, including results indicators. The World Bank's supervision team, together with a team of external reviewers, will conduct a mid-term evaluation of the Project execution that will be conducted no later than two years after the first disbursement. The external review will focus on: (i) assessing the degree of advancement in achieving Project outcomes; (ii) assessing of the institutional arrangements for Project implementation; (iii) assessing the implementation of components activities and primary results; and (iv) reviewing the Annual Operational Plans.
3. **Fiduciary aspects.** The World Bank will: (i) provide implementation support and training as necessary; (ii) follow up on the Project's financial management system and its adherence to the Operational Manual, including but not limited to accounting, reporting and internal controls; (iii) provide guidance on the Bank's Procurement Guidelines to MEFCCA; (iv) review procurement documents and provide timely feedback; and (iv) help monitor procurement progress against the Procurement Plan.
4. **Environmental and Social Aspects.** The World Bank will emphasize opportunities for social development and environmental sustainability provided by the Project, as well as adequate attention to gender equity issues. Within this framework, the World Bank will support and carry out close monitoring of the ESMF implementation. The World Bank social and environmental specialists will be available to provide timely guidance to MEFCCA and agencies/institutions MEFCCA may enter into agreements with. The World Bank social and environmental specialists will participate in field visits on a regular basis to maintain a good and ongoing understanding of the situation on the ground.
5. **Information and Communication.** A Communication Strategy will support the implementation of the Project in its different areas of intervention. The strategy will also seek to support implementation of consultative and accountability processes, including a grievance redress mechanism.

Implementation Support Plan

6. Task team leadership, as well as safeguards, procurement, financial management, and technical aspects will be managed from the World Bank's offices in Managua and Washington. International and national consultants will be hired to provide advisory services in specialized issues. Formal supervision and field visits will be carried out semi-annually or as needed to help promote satisfactory Project implementation. A mid-term review will determine needs for restructuring and other changes in the Project design and/or implementation arrangements. The main focus of implementation support is summarized below.

Detailed Implementation Support required

<i>Time</i>	<i>Focus</i>	<i>Skills Needed</i>	<i>Resource Estimate. Staff Weeks</i>
<i>First twelve months</i>	Establishment of implementation capacity	Procurement and FM	4
	Agri-business support	Rural Development Spec./Sr. Agricultural Specialist	4
	Nutrition/health specialist	Health Spec.	4
	Project Management and Communication	Task Team Leader (TTL)	12
		Co-TTL	8
		Operations Analyst	16
		Communication Specialist	2
	Monitoring and Evaluation	M&E Specialist	6
	Social, Gender and Env. Specialists	Social Scientist	2
		Env. Specialist	3
		Gender Specialist	2
<i>12-60 months</i>	Procurement Implementation support	Procurement specialist	8
	FM implementation support	FM specialist	8
	Environmental sustainability and safeguards supervision	Environmental Specialist	8
	Social Development and community engagement/gender	Social Development Specialist/Gender Spec.	8
	Agri-business	Rural Development Spec.	3
	Marketing aspects	Marketing-value chain specialist	3
	Health/nutrition specialist	Health Spec.	8
	Project Management, M&E	Task Team Leader	36
		Co-TTL	18
		Operations Analyst	42
		M&E Specialist	12

Annex 5: Economic and Financial Analysis

NICARAGUA: Caribbean Coast Food Security Project

I. Introduction

1. The Project objective is to enhance food and nutritional security in select communities of the Caribbean Coast of Nicaragua. This Annex presents an assessment of: (i) the financial benefit of the proposed Project interventions for the beneficiary families, community organizations, and microenterprises that add value to primary products; (ii) the aggregate economic benefits of the Project; and (iii) the resulting economic impact analysis of the proposed investment. Section II presents the financial benefits of the Project including the expected increase in family income and employment for beneficiaries, their organizations and income generating activities. Aggregated results are summarized in Section III, including the evolution of aggregate production and employment and the expected increase of the value of production, compared to the situation without a Project. The economic analysis of the Project is presented in Section IV, including a description of the methodology and result indicators with a sensitivity analysis to variations in the benefits, costs, and/or delays in number of beneficiaries adopting the proposed changes and achieving the expected benefits.

2. The Project will enhance the productive and marketing capacities of farmers and rural enterprises through supporting the design, financing, and implementation of IDPs and provide cross-cutting services to IDP beneficiaries in the areas of technology transfer and nutritional education and communication. Financial indicators are presented to justify the proposed investments through the expected net family income increases, creation of employment, and the Financial Internal Rate of Return (FIRR) and net present value (NPV) of incremental net benefits compared to the situation without the Project (WOP) at market prices. Economic indicators include the economic rate of return (ERR). The period for the analysis is 20 years and the discount rate 10 percent per year.

II. Financial Analysis

3. **Crop and Activity Models.** The financial analysis is based on representative production models including crops and activities and production systems to be supported, which are summarized below. The examples represent real cases, but not necessarily exclude other types of initiatives that will primarily respond to the demand of the communities in the Project area. Crop and activity budgets were prepared to show the current situation and the introduction with the Project, of simple technological packages to improve the productivity and net revenues from the respective crop or activity.

4. Bean yields would improve on average from 12 to 18 quintals (qq) per *manzana* (mz), and from 15 to 25 qq/mz in maize. Income before labor costs would be increased from NIO 4,590 to NIO6,748 and from NIO4,830 to NIO6,500 per mz of beans and maize respectively. Table 7 below summarizes the main parameters: yields, gross revenues, input and labor costs and net income obtained after labor costs, for each of the analyzed main crop and activities.

Table 8. Main Indicators and Expected Results for Crops (per ha) and Activities (per module)

Crop	Average Yields (qq/ha or per module)		Gross Revenue (NIO/ha)		Input & Labor Costs (NIO/ha)		Net Income after labor costs (NIO/ha)	
	Without	With	Without	With	Without	With	Without	With
Maize	15	25	9,000	15,000	5,010	9,700	3,990	5,300
Beans	12	18	10,800	16,200	8,610	12,452	2,190	3,748
Rice	60	80	19,200	25,600	17,125	21,375	2,075	4,225
Cacao (Existing)	11	20	13,200	24,000	11,888	18,672	1,312	5,328
Cassava (bags)	400	500	80,000	100,000	32,800	39,520	47,200	60,480
Cow (gallons milk)	160	500	3,650	10,750	1,850	2,760	1,800	7,990
Coffee Conventional	-	25	-	65,000	-	21,735	-	43,265

5. *Farm and IDP models.* Based on the crop and activity models, ten farm and microenterprise IDP models were prepared for assessing the family income changes expected from Project interventions²⁷. These include individual farms and common interest groups producing grain crops, root and tuber crops, coffee, cacao, livestock or combination of these farming activities; a fisheries IDP involving four families; and an artisanal carpentry IDP involving six families. The latter representing different types of non-farm income generating activities, as described below. Finally, three models represent agro-processing IDPs for strengthening relevant value chains include rice milling, cacao and milk processing units to be supported through farmers associations.

6. *The agro-food household model* was assumed to have an average farming area of 1.5 ha of land including food crop areas: basic grains, root crops, fruit trees and cover crops which improve soil fertility and productivity. It includes maize, beans, and rice with 0.25 ha each, and other crops such as cassava and *quequisque* with 0.50 ha each. With the Project, fruit trees (i.e., oranges, coconut and/or breadfruit) would be added. Beneficiaries represented by this model would increase their net family income from about US\$620 to US\$2,300 per year. Similarly, the roots and tuber production model would increase family income from about US\$1,370 to US\$2,500 per year.

7. *The organic and conventional coffee production models* would be developed in specific areas presenting the adequate ecological conditions. The model presented shows the costs and benefits from the plantation of *robusta* coffee which adapts very well in certain areas of the Caribbean region of Nicaragua. With a yield at maturity (year 6) of 25 qq (quintal, approx. 45 kg.) the expected FIRR is 30.9 percent, but with the Project incentives, the FIRR exceeds 100 percent. Under this farm model the family net income would increase from US\$367 to about US\$2,240.

8. *The ecological and conventional cocoa production models* would be developed in specific areas presenting the adequate ecological conditions. Some families currently growing grains (beans, maize, cassava and rice) would diversify crops and increase the productivity of the 2 ha

²⁷ It is expected that IDPs will cover mostly families at the subsistence level. The number of farmers to benefit from an individual IDP will vary according to several factors (e.g. type of productive activities, geographic location, etc.). It is expected that, on average, farmers IDP will benefit groups of about 30-35 beneficiary families. Common interest groups of fishers and small-scale/artisanal families with limited resources that have already established a small business and requiring support to develop it will be also targeted through IDPs. Agribusiness-related IDPs will target producers and/or organizations with not less than ten members and will aim to add value to strategic products (i.e. rice, cocoa, coffee, and milk).

system increasing on-farm employment and improving food security. High quality and productive cocoa plants associated with productive fruit trees providing shade will be planted using family labor and few inputs from outside the system. The main components of the eco-cocoa model are: (i) commercially valuable timber species adapted to the area; (ii) energetic species for shade and fuel-wood production; (iii) fruit trees and musaceae that will provide incremental income during the early years while the cacao starts production; and (iv) organic cocoa. About 1,800 cocoa plants would be planted in the 2 ha with compost, green manure as cover, and beans in hilly areas (together with small soil conservation works), to reduce surface runoff. The income of the families adopting this model would increase from about US\$645 to about US\$2,400 per year.

9. *The livestock model* was based on the typical livestock farm introducing trees and improved pastures. The farm identified for the implementation of this model has an average area of 10 ha. Trees and shrubs to be introduced will provide mulching material, green manure, animal fodder, soil erosion control, shade, nutrient cycling and improved soil fertility and also socioeconomic benefits e.g. saleable products such as fruits, fuel wood and charcoal, timber for construction, craft materials, and others, while increasing also the livestock productivity. The mixed system is expected to generate more than 50 percent increase of net family income from about US\$1,300 per year to more than US\$2,000 per year.

10. *The carpentry model is shown as an example of a non-farm income generating activity.* The model assumed would support associative wood processing microenterprises of up to six families or associations working in their small workshops. The Project would help to improve their facilities and tools through adequate processing tools (circular-saw, band-saw, drill, etc.), in order to improve their income generation capacity. The Project will ensure that they are supported and supervised by the existing public forestry extension and regulation services. The Project will also assist the development of linkages with markets for furniture and other wood products. The strengthened small enterprises will mobilize the local demand for other intermediate products and services. This model is expected to increase more than 240 percent the net income of the families involved from about US\$2,220 to US\$5,400 per year for the six families, or US\$370 per year to more than US\$900 per year per family.

11. *The fishing common interest group model* would strengthen the livelihood and income by improving the beneficiaries' fishing capacity and working conditions. The model assumed common interest groups beneficiaries composed of four artisanal fishermen and a boat. The Project would improve their productivity and income, provide additional employment and food security. The investments would cover repairing the boat and providing a new motor, nets and other fishing implements, and refrigerator boxes to preserve the quality of the fish. Through this investment, an expected net income increase of more than 280% of the artisan fishers is expected, from about US\$1,270 per year to about US\$3,650 per year.

12. *The agro processing models* comprise transformation activities for *rice drying and milling, cocoa processing, amongst others.* A number of agro-processing operations that involve value-addition are also relevant. Working capital for purchase of supplies, equipment and machinery will be financed together with TA and training up to a value of US\$2,300 per family. In the case of the rice milling activity, an investment of about US\$110,000 would support about 50 rice producers to process their rice, and other farmers' product up to about 5,640 qq per year, increasing the value

of their rice in about 25 percent after processing costs. Similarly with the other models for cacao and dairy products.

13. *The performance indicators for each of the Project intervention representative models are summarized below in Table 9. The most straightforward financial indicator to assess the financial impact of the Project is the increase in net household income of beneficiaries and its contribution to poverty alleviation and food security. Family income is expected to grow between 1.5 and 6 fold. All models also show an increase in family employment in the supported productive activity reducing their dependence on off-farm income. The FIRR for the agro processing models ranged from 28 percent for the dairy products plant, and more than 100 percent for the rice milling plant.*

Table 9. Project Financial Impact at the level of Typical Farms and Microenterprises in the Project Area

Farm Model. Indicators	*	Mod 1: Diverse Food Crops	Mod 2: Food crop Roots and Tubers	Mod 3: Food with Addition of Coffee	Mod 4: Cocoa Eco-forestry	Mod 5: Livestock adding trees	Mod 6: Non-farm CIG (6 families)	Mod 7: Fisheries CIG (4 families)	Mod 8: Rice Milling Plant	Mod 9: Cocoa Process Plant	Mod 10: Dairy Process Plant
Labor (day/yr requirements)	WOP	40	52	20	15	100	310	203	-	-	-
	WP	160	118	87	150	152	550	1,020	1,500	2,640	8,200
Gross income (000 NIO/year)	WOP	18.7	49.4	18.9	29.0	28.5	95.6	141.6	-	-	-
	WP	89.1	94.5	80.6	92.7	66.1	202.5	463.5	2,707	3,570	53,064
Net income (000 NIO/year)	WOP	16.2	35.6	9.5	16.8	34.1	57.8	132.1	-	-	-
	WP	60.7	65.2	58.3	62.6	53.3	148.1	379.5	497	314	3,254
Return/day of labor (NIO)	WOP	405	678	465	184	341	186	651	-	-	-
	WP	380	552	666	381	350	269	379	722	269	557
Increase in Family Income	WOP	100%	100%	100%	100%	100%	100%	100%	FRR =	FRR =	FRR =
	WP	375%	183%	614%	373%	156%	256%	287%	>100%	57%	28%

Without the project (WOP); With the Project (WP)

III. Aggregate results

14. The Project will support investments and TA to 21,000 poor rural households in the Project area, including indigenous communities, afro-descendants and residents of the Project area. It was assumed that about two thirds of the targeted beneficiaries (about 14,000) would adopt the changes and improvements described above, so the cost of targeting 21,000 families was included in the analysis, but only 14,000 families would generate the described benefits. The gradual incorporation into the Project support activities of the beneficiary families adopting the expected changes is shown in Table 10.

Table 10. Project beneficiaries

	2015	2016	Year			Total	Families	2015	2016	Year			Total
			Benefitted	2017	2018		2019			2017	2018	2019	
Farm beneficiaries													
Diverse Food Crops	0	200	450	650	700	2,000	1	0	200	450	650	700	2,000
Food crop Roots and Tubers	0	50	120	180	250	600	1	0	50	120	180	250	600
Food with Addition of Coffee	0	40	60	100	200	400	1	0	40	60	100	200	400
Cocoa Eco-forestry	0	40	80	120	160	400	1	0	40	80	120	160	400
Lives to ck adding trees	0	100	500	1,200	2,200	4,000	1	0	100	500	1,200	2,200	4,000
Non-farm Income Generating CIGs													
Non-farm CIG (6 families)	0	10	30	40	30	110	6	0	60	180	240	180	660
Fisheries Beneficiaries CIGs													
Fisheries CIG (4 families)	0	50	100	150	250	550	4	0	200	400	600	1,000	2,200
Agro processing CIGs Subprojects													
Rice Milling Plant	0	0	1	1	0	2	140	0	0	140	140	0	280
Cocoa Processing	0	0	1	1	0	2	120	0	0	120	120	0	240
Dairy Process Plant	0	0	1	1	0	2	1,650	0	0	1,650	1,650	0	3,300
Total Benefitted Families								0	690	3,700	5,000	4,690	14,080

IV. Economic Results

15. The analysis shows an ERR of 17 percent and a NPV of NIO 418 million using a 10 percent discount rate. All Project costs were included in the analysis with the exception of those from subcomponent 2.2 (US\$2.1 million) covering nutrition communication & education. Benefits of subcomponent 2.2 were assessed separately and are presented below.

16. Table 11 below shows the main details of the analysis. Incremental net benefits were estimated including: (i) annual net incremental income of farm, non-farm and supported off-farm value addition investments; (ii) the incremental production costs of these activities, including investments and operating costs; and (iii) the costs of the Project implementation. No indirect benefits were quantified as those to be generated by the supported activities emphasizing not only increased production but also consumption of an adequate diet for all age-groups.

17. Economic benefits were valued based on the market prices of products deducting taxes (Value Added Tax= 15 percent) on products such as organic cocoa, banana, manufactured goods and fishery products. For other products sold in local markets not subject to taxes, they were valued at market prices (cassava, maize, beans, rice, garden produce and firewood). The cost estimates considered the following items: (i) investment and operating costs of the activities at market prices net of taxes; (ii) the Project implementation costs also net of taxes; and (iii) the unskilled labor (including family labor) correcting its market value with 0.7 given the high unemployment rate in the region.

18. The number of jobs in the Project areas is expected to increase substantially. It is estimated that 100 percent increase in employment of family labor per year among beneficiaries. The value of farm, non-farm and processed production from Project beneficiaries is expected to increase from NIO250 million to NIO920 million (gross value of production in the year of full maturity of investments). The net value of production would grow from NIO270 million to NIO486 million.

19. The recurrent economic crisis and its potential impact on the poor make investing in child nutrition more urgent than ever to protect and strengthen human capital in the most vulnerable developing countries like Nicaragua especially in the poorer regions of the Caribbean. Chronic

maternal and child under-nutrition constrain the country's social and economic development and will have an impact on future health expenditures and working capacity of the affected children in their adulthood life. The consequences range from increased neonatal mortality and morbidity to other outcomes that will have lifelong consequences for health, productivity and economic growth. The economic costs are a result of direct losses in productivity linked to poor physical status; and indirect losses due to poor cognitive function and learning deficits, as well as losses from increased medical costs.

20. Through subcomponent 2.2 the Project aims to sustainably enhance food and nutritional security in these highly vulnerable communities, covering at least about 4,000 small farm households and/or villagers in the Project area including women with children under five years of age or who are pregnant or lactating (involving about 22,800 people of whom 7,680 children are under five). In addition, all stakeholders will receive nutritional education. The Project will: (i) improve food availability and secure access to food through increased productivity of agriculture and other non-agriculture rural activities; and (ii) improve nutritional security through diversified diet/nutrient intakes, and feeding/caring practices for these vulnerable communities.

21. Activities aimed at enhancing nutrition were budgeted at US\$2.1 million, including direct benefits to the targeted families. Communication campaigns would include awareness of the importance of nutritious food, food storage and conservation practices, training of extension workers and community leaders, etc. Taking advantage of the improved level of food availability due to Project interventions under the components 1 and 2, and the planned training activities to enhance their access to food, the Project will enhance nutritional security in the Project area. Benefits will be attained by: (i) promoting nutritionally sensitive behavior and consumption of high-nutritive value food products by pregnant/nursing women and children under the age of five years; and (ii) improving micronutrient intakes during critical life-stages by providing rich food supplements to pregnant women and micronutrient for the home-fortification of young children's diets.

22. The analysis assessed the impact of these Project investments towards providing nutritional security for the targeted households. Benefits are expected to be significant, including enhanced human capital productivity, economic development, and poverty reduction. Medium and long term benefits will include improved physical work capacity, cognitive development, school performance, and health. Based on results of a longitudinal study in Guatemala (Hoddinott et al. 2008), it is known that children receiving fortified complementary food before they were three years of age grew up having wages 46 percent higher than the control group (for men). In this context, it is expected that the productivity benefits from the proposed investments to improve food intake for children under five years of age, accompanied by community-based programs to reduce relapse rates and prevent further malnutrition, will have a sizable impact.

23. The impact of the nutrition enhancing activities was quantified based on the projected increased productivity during the adult working life of beneficiaries who were children at the time of Project implementation. Given an average investment cost of US\$260 per child under five years of age that would benefit from the improved nutrition, it was estimated that about 7,680 children would grow up in better conditions due to the Project interventions; it was conservatively assumed that these children would in their future as working adults, perceive, on average, a 20 percent

increase in wages compared to what they would have made based on prevailing wages in rural areas covered by the Project (NIO180 per day instead of NIO150 during their expected 40 year working life). The resulting Economic Rate of Return of investing US\$2.1 million under subcomponent 2.2 is 17 percent. This is a very conservative estimate since it does not take into account indirect benefits, such as: (i) the increased probability of improving cognitive development, school performance and enhanced education which would result in better access to specialized labor markets; (ii) the reduction of health costs for treatment of diarrhea and other recurrent diseases in the Project area; and (iii) the foregone output for the reduction of lost working days due to disease treatments among the targeted rural vulnerable communities.

Sensitivity Analysis

24. A sensitivity analysis to assess the Project exposure to risks identified as significant for the achievement of the Project objectives shows that:

- (i) if instead of two thirds of the assisted farmers only 50 percent would succeed in adopting the recommended agricultural practices, diversifying to high-value crops, and/or adding value to the relevant value chains, the ERR would drop from 17 percent to 13.7 percent;
- (ii) if the average agricultural prices considered for the analysis would drop by 20 percent their current levels, the ERR would drop to 7.7 percent;
- (iii) if the Project investment costs would escalate by 20 percent above the budgeted amount, the ERR would then drop to 15.5 percent; and
- (iv) if both, the agricultural prices drop by 20 percent and investment costs increase by 20 percent, the ERR would drop to 6.6 percent.

25. Based on this assessment, the proposed Project is considered economically and financially viable. In addition, the Project is expected to generate significant socio-economic benefits to the country.

Table 11. Summary of Economic Analysis

Project Summary

ECONOMIC BUDGET (AGGREGATED)

(In Cordobas '000)

	Year											
	Without Project	With Project										
	1 to 20	1	2	3	4	5	6	7	8	10	12 to 20	
Main Production												
Fruits	-	-	-	1,510	5,830	14,926	30,160	46,685	65,111	85,900	85,900	
Basic Grains, Root and Tubers	217,950	217,950	218,280	221,984	235,821	262,531	300,440	318,616	318,616	318,616	318,616	
Organic Cocoa (Raw)	-	-	-	-	448	1,736	4,032	7,672	10,416	13,440	13,440	
Organic Cocoa (Dried)	-	-	-	-	2,040	5,610	7,140	7,140	7,140	7,140	7,140	
Conventional Cocoa (Raw)	5,280	5,280	5,280	5,376	5,664	6,288	7,344	8,352	9,216	9,600	9,600	
Coffee	-	-	-	-	-	832	2,808	7,020	14,560	26,000	26,000	
Forestry Products	10,516	10,516	10,614	13,626	22,345	37,482	56,032	66,527	71,323	71,155	71,155	
Fish	38,569	38,569	38,569	40,688	48,863	65,006	91,238	116,663	126,225	126,225	126,225	
Lobster	21,175	21,175	21,175	22,750	27,650	36,925	52,150	64,050	69,300	69,300	69,300	
White shrimp	18,150	18,150	18,150	19,200	23,100	30,750	43,200	54,900	59,400	59,400	59,400	
Raw Milk	51,200	51,200	51,200	51,600	54,000	61,120	77,120	94,560	115,200	160,000	160,000	
Cheese	-	-	-	-	-	4,508	10,242	11,527	13,592	19,793	24,180	
Cream	-	-	-	-	-	2,658	5,903	6,507	7,666	11,127	13,608	
Cream Chees	-	-	-	-	-	5,937	13,388	14,976	17,660	25,718	31,680	
Cold Milk	-	-	-	-	42,101	72,143	60,383	60,987	57,175	44,882	36,660	
Calif (6 months)	7,200	7,200	7,200	7,260	7,560	8,280	9,660	9,960	10,680	12,000	12,000	
Sub-total Main Production	370,040	370,040	370,467	383,994	475,422	616,732	771,240	896,142	973,270	1,060,297	1,064,904	
On-Farm Consumption												
Basic Grains, Root and Tubers	81,280	81,280	81,280	81,760	84,160	89,920	100,480	100,480	100,480	100,480	100,480	
Fish	38,569	38,569	38,569	38,813	39,450	40,481	42,150	42,900	42,900	42,900	42,900	
Sub-Total On-Farm Consumption	119,849	119,849	119,849	120,573	123,610	130,401	142,630	143,380	143,380	143,380	143,380	
Net Value Of Production	250,191	250,191	250,619	263,421	351,812	486,331	628,610	752,762	829,890	916,917	921,524	
Production Cost												
Investment												
Purchased Inputs												
Seeds and Plants	869	869	7,918	20,188	37,197	57,134	22,200	-	-	-	-	
Machinery and Equipment	-	-	9,514	20,332	29,854	44,550	-	-	-	-	-	
Phytosanitary/Fertilizers	-	-	2,628	7,396	13,862	20,880	9,939	2,518	-	-	-	
Others	4,153	4,153	5,789	7,552	8,434	9,062	-	-	-	-	-	
Investments	-	-	688	16,831	27,173	20,662	-	-	-	-	-	
Non-successful IDPs (33%)	-	-	50,000	50,000	50,000	50,000	-	-	-	-	-	
Sub-Total Purchased Inputs	5,021	5,021	76,537	122,299	166,519	202,288	32,139	2,518	-	-	-	
Labor												
Labor	2,554	2,554	9,250	19,705	32,090	44,126	14,339	1,092	-	-	-	
Sub-total Investment Costs	7,575	7,575	85,786	142,004	198,609	246,413	46,478	3,610	-	-	-	
Operating												
Purchased Inputs												
Seeds and Plants	31,677	31,677	32,114	33,673	38,186	48,194	62,987	71,439	71,439	71,439	71,439	
Basic Grains, Root and Tubers	-	-	-	-	1,344	3,149	3,610	3,610	3,610	3,610	3,610	
Organic Cocoa (Raw)	-	-	-	-	1,603	4,403	5,600	5,600	5,600	5,600	5,600	
Machinery and Equipment	15,020	15,020	15,194	15,527	15,984	16,579	16,451	16,376	16,501	16,501	16,501	
Milk to Plant	-	-	-	-	39,420	79,234	80,027	80,827	81,636	83,659	84,960	
Phytosanitary/Fertilizers	27,892	27,892	28,209	35,171	52,651	83,390	125,384	137,039	139,628	139,628	139,628	
Others	10,599	10,599	11,057	14,191	24,191	41,436	57,402	69,364	75,415	75,461	75,461	
Taxes	-	-	-	-	1,790	4,139	4,751	4,857	5,141	5,900	6,400	
Sub-Total Purchased Inputs	85,189	85,189	86,575	98,562	173,378	276,384	351,460	384,254	393,829	395,897	397,198	
Labor												
Labor	63,794	63,794	63,996	69,141	83,611	108,667	144,616	169,492	179,441	180,791	180,859	
Sub-total Operating Costs	148,982	148,982	150,571	167,703	256,989	385,052	496,076	553,746	573,269	576,688	578,056	
Sub-Total Production Cost	156,557	156,557	236,357	309,707	455,598	631,465	542,553	557,356	573,269	576,688	578,056	
Other Costs												
Comp. 1.2 Support Food Production Safety	-	21,000	15,600	15,600	15,600	4,200	-	-	-	-	-	
Comp. 2.1 Technology Generation, Validati	-	8,700	16,000	13,600	7,800	5,930	-	-	-	-	-	
Comp. 3 Management, Monitoring and Evalu	-	15,000	14,600	14,600	14,600	9,000	-	-	-	-	-	
Sub-Total Other Costs	-	44,700	46,200	43,800	38,000	19,130	-	-	-	-	-	
OUTFL OWS	156,557	201,257	282,557	353,507	493,598	650,595	542,553	557,356	573,269	576,688	578,056	
Cash Flow	93,634	48,934	-31,938	-90,085	-141,786	-164,264	86,056	195,406	256,621	340,229	343,468	
Net Economic Benefits	213,483	168,783	87,911	30,487	-18,176	-33,862	228,686	338,786	400,001	483,609	486,848	

EIRR = 17.0% NPV = 418,440

FRR = 56.2%, NPV = 1,449,535

Annex 6: Key Documents in the Project Files

NICARAGUA: Caribbean Coast Food Security Project (P148809/TF 018703)

<i>Document name</i>	<i>Date</i>
Proposal Submitted for the Consideration of the Global Agriculture and Food Security Program (GAFSP): PRORURAL-I: Support for Increased Productivity and Food and Nutrition Security in the Nicaraguan Caribbean Coast.	June, 2013
Nutritional Vulnerability Reduction in Communities with high rates of food insecurity document	March, 2014
Project Economic and Financial Analysis	May, 2014
Project Theory of change diagrams (PAIPSSAN-TOC)	June, 2014
Project Results Framework and Monitoring	June, 2014
Project Target Beneficiaries and Selection of Project Area Table	June, 2014
Project Cost Tables	September, 2014
Project Arrangements/Implementation Structure Document	September, 2014
Project Innovation Development Plans Strategy	September, 2014
Project Environmental and Social Management Framework	November, 2014
Project Procurement Plan (2015-2019)	November, 2014
Project General Budget (2015-2019)	November, 2014
Project Quarterly Budget (2015-2019)	November, 2014
Project Annual Plan 2015	November, 2014
Project Operational Manual	December, 2014
Short List, Request of Proposals, and Budget for the Project Base Line consultancy	December, 2014

