

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK  
MULTILATERAL INVESTMENT FUND

**DOMINICAN REPUBLIC**

**GREENING FOOD SYSTEMS TO IMPROVE THE COMPETITIVENESS OF  
SMALL-SCALE PRODUCERS AND THE CLIMATE CHANGE RESILIENCE OF  
COASTAL COMMUNITIES**

**(DR-M1051)**

**DONORS MEMORANDUM**

This document was prepared by the project team consisting of Lorena Mejicanos Ríos (MIF/ABG), project team leader, Smeldy Ramirez (MIF/CDR), Mariana Wettstein (MIF/CDR), Ruben Doboin (MIF/MIL), Rachel Atkinson (VPS/ESG), Gonzalo Muñoz (RND/CDR), Laura Torá (MIF/MIL), Alma García (MIF/ABG), Yolanda Strachan (MIF/AMC), Juan Chang (INE/CCS), and Luciane Madeiros (LEG/NSG).

Under the Access to Information Policy, this document is subject to public disclosure.

## CONTENTS

### PROJECT SUMMARY

I.	BACKGROUND AND RATIONALE .....	1
II.	OBJECTIVES AND COMPONENTS .....	6
III.	MONITORING AND EVALUATION STRATEGY .....	13
IV.	COST AND FINANCING .....	15
V.	EXECUTING AGENCY .....	15
VI.	PROJECT RISKS.....	16
VII.	ENVIRONMENTAL AND SOCIAL IMPACT.....	17
VIII.	FULFILLMENT OF MILESTONES AND SPECIAL FIDUCIARY ARRANGEMENTS .....	17
IX.	ACCESS TO INFORMATION AND INTELLECTUAL PROPERTY .....	17

## PROJECT SUMMARY

### **GREENING FOOD SYSTEMS TO IMPROVE THE COMPETITIVENESS OF SMALL-SCALE PRODUCERS AND THE CLIMATE CHANGE RESILIENCE OF COASTAL COMMUNITIES (DR-M1051)**

The region of Latin America and Caribbean (LAC) possesses one third of the planet's freshwater resources as well as abundant natural capital that is being greatly pressured by food production demands. The report, "The next global breadbasket: How Latin America can feed the world. A call to action for addressing challenges and developing solutions,"<sup>1</sup> summarizes the enormous challenge faced by the LAC region to increase its production without expanding agriculture into environmentally sensitive areas, diminishing its production capacity, or compromising on quality.

The report, "Environmental impacts in corporate supply chains: Opportunities for SMEs in Latin America and the Caribbean,"<sup>2</sup> identified the food sector as having the greatest environmental impact in terms of inflows and outlays, and particularly in the food value chain, given the high consumption of inputs (water, agrochemicals, soil, etc.), pollution, and the significant volume of greenhouse gases generated in the agriculture-livestock and processing phase.

This pressure on food production jeopardizes the natural capital required for sustainable production. For this reason, it is strategic to promote the adoption of good practices in climate-smart production<sup>3</sup> that allows resources to be used most efficiently and rested for regeneration.

The coastal ecosystem consists of mangroves, which protect the coast from wind, wave, and water erosion, are home to many species, and are a source of forestry products. Their destruction contributes to climate change since blue carbon<sup>4</sup> is released and their ability to capture and sequester carbon is destroyed. This project is part of a group of initiatives that promote more sustainable, low-carbon food systems and is the Bank's first to promote the measurement and sequestration of blue carbon.

This project will serve the rice and fish and seafood sectors, which share freshwater resources in coastal areas. The initiative seeks to minimize the domino effect when the rice sector, located upriver, uses large quantities of agrochemicals, resulting in highly contaminated runoff that pollutes the fresh water flowing in the rivers. It will also show how this water affects the health of coastal ecosystems such as mangrove forests that take up fresh water, on which marine reproduction and the economy of coastal communities depend.

Artisanal fishers and small-scale rice growers use productive practices that are largely unsustainable and make them less competitive. These practices lower productivity and

---

<sup>1</sup> A report produced by the partnership between the IDB and Global Harvest Initiative.

<sup>2</sup> A study financed by the MIF and conducted by Trucost.

<sup>3</sup> <http://www.fao.org/climatechange/epic/que-hacemos/que-es-la-agricultura-climaticamente-inteligente/es/#.VYHYykbLxE>.

<sup>4</sup> Blue carbon is defined as the carbon stored, sequestered, or released from vegetated coastal and marine ecosystems such as mangroves, tidal marshes, and seagrass meadows. These ecosystems store large amounts of carbon in the plants and the sediment beneath them ([http://thebluecarboninitiative.org/wp-content/uploads/blue\\_carbon\\_policy\\_framework\\_2\\_0.pdf](http://thebluecarboninitiative.org/wp-content/uploads/blue_carbon_policy_framework_2_0.pdf)).

quality and contribute to the destruction of coastal ecosystems such as mangrove forests, threatening the livelihoods of the communities living there.

AgroFrontera, a nongovernmental organization in Montecristi, Dominican Republic, has developed a small pilot project in coastal communities<sup>5</sup> near Montecristi National Park to introduce best practices in fishing and rice production, which has yielded very positive results.<sup>6</sup> Based on that experience, this project will refine the business model.

The project calls for the adoption of best practices in the sustainable rice value chain that will decrease the use of agrochemicals and water. For fishers, the business model recommends building the capacity of artisanal fisher associations and creating a federation in order to: (i) employ responsible fish and seafood harvesting and post-catch practices; and (ii) eliminate intermediaries and do bulk business directly with the market.

The project fosters a community participation model for management of the natural resources of Montecristi National Park that promotes the conservation of mangrove forests and the associated marine ecosystems, safeguarding their ability to provide food, income, and shelter for the coastal communities vulnerable to the impacts of climate change. Given the project's innovative nature, an impact evaluation is planned, and the knowledge generated will provide a great learning opportunity for the IDB/MIF.

---

<sup>5</sup> In the Buen Hombre community, involving 25 artisanal fishers, a supermarket chain, a U.S. fish and seafood importer, and a famous local restaurant; and in the La Recta de Sanita community in Las Matas de Santa, with 125 farmers (315 hectares) in the Bajo Yaque del Norte region.

<sup>6</sup> (i) Members of the fisher associations increased the value of their daily catch from an average of 300 to 600 Dominican pesos, and from 750 to 1,200 Dominican pesos; and (ii) rice farmers decreased the use of fertilizers, pesticides, and irrigation water by 55%, 67%, and 35%, respectively, while maintaining or increasing yields, generating 25% to 50% higher earnings.

## **ANNEXES**

Annex I	Logical Framework
Annex II	Summary Budget
Annex III	Quality for Effectiveness in Development (QED) Matrix

## **APPENDICES**

Proposed resolution

## **AVAILABLE IN THE DOCUMENTS SECTION OF THE MIF PROJECT INFORMATION SYSTEM**

Annex IV	Itemized budget
Annex V	Preliminary list of milestones
Annex VI	Diagnostic needs assessment of the executing agency
Annex VII	Progress status reports, fulfillment of milestones, fiduciary agreements, and institutional integrity
Annex VIII	Procurement plan
Annex IX	Timetable of activities
Annex X	Operating Regulations
Annex XI	Terms of reference for the project coordinator
Annex XII	Monitoring and evaluation plan for impact evaluation

## **ABBREVIATIONS**

AgroFrontera	Asociación de Productores Agropecuarios de la Frontera, Inc.
ArroEcoZ	Asociación de Arroceros Ecológicos, Inc.
CCN	Centro Cuesta Nacional
CODOPESCA	Consejo Dominicano de Pesca y Acuicultura [Dominican Fishing and Aquaculture Council]
CRF	Corporate Results Framework
Ha	Hectare
MSME	Micro, small, and medium-sized enterprise
MRV	Measurement, reporting, and verification
PEU	Project Execution Unit
PNM	Parque Nacional Montecristi [Montecristi National Park]
PNMEB	Parque Nacional Manglares de Estero Balsa [Estero Balsa Mangrove National Park]
SICA	Sistema Intensivo de la Cultivo de Arroz [Intensive Rice Cultivation System]
SMART	SMall-scale and ARTisanal Fishing
SRPP	Sustainable rice production practices
tCO <sub>2</sub> e	Metric tonnes of carbon dioxide equivalent

## EXECUTIVE SUMMARY

### GREENING FOOD SYSTEMS TO IMPROVE THE COMPETITIVENESS OF SMALL-SCALE PRODUCERS AND THE CLIMATE CHANGE RESILIENCE OF COASTAL COMMUNITIES

(DR-M1051)

<b>Country and geographic location:</b>	Dominican Republic, Province of Montecristi
<b>Executing agency:</b>	Asociación de Productores Agropecuarios de la Frontera, Inc. (AgroFrontera) <sup>7</sup>
<b>Access area:</b>	Basic Services and Green Growth, and Access to Markets
<b>Agendas:</b>	Leveraging Natural Capital, Climate Change Adaptation, High-value Markets
<b>Coordination with other donors/Bank operations:</b>	The Bank's Natural Resources Division (RND) and Climate Change Division (CCS) are part of the project team.
<b>Direct beneficiaries:</b>	<p>Total of 8 producer organizations located in 6 communities,<sup>8</sup> as follows:</p> <p>5 artisanal fisher associations<sup>9</sup> and 285 artisanal fishers;</p> <p>1 women's clam harvesting association and 25 women,<sup>10</sup> 1 federation of fisher associations;</p> <p>1 rice farmer association<sup>11</sup> and 300 small- and medium-scale rice producers, the environment, and the coastal ecosystem.</p>
<b>Indirect beneficiaries:</b>	<p>Approximately 1,000 households;</p> <p>All participants in the value chains;</p> <p>Extension workers from Instituto Agrario Dominicano [Dominican Agrarian Institute] (IAD), the Ministry of Environment and Natural Resources, the Dominican Fishing and Aquaculture Council (CODOPESCA), and Instituto de Recursos Hidráulicos [Water Resources Institute] (INDRHI).</p>

<sup>7</sup> [www.agrofrontera.org](http://www.agrofrontera.org).

<sup>8</sup> Pepillo Salcedo, San Fernando de Montecristi, Loma Atravesada, Buen Hombre, Punta Rucia, and Las Matas de Santa Cruz.

<sup>9</sup> Three registered associations (Asociación de Pescadores Guardianes de la Bahía, Cooperativa de Pescadores Bienvenido Espinal, Asociación de Pescadores Guardianes Marinos), and two associations in the process of registration (Asociación de Pescadores Los Perseverantes and Punta Rucia).

<sup>10</sup> The Asociación de Almejeras de Buen Hombre will be registered in connection with the operation.

<sup>11</sup> Arroceros Ecológicos (ArroEcoZ) will be registered in connection with the operation.

<b>Financing:</b>	Technical cooperation:	US\$354,500	
	Investment:	-	-
	Loan:	-	-
	<b>Total MIF contribution:</b>	<b>US\$354,500</b>	<b>57.4%</b>
	Counterpart:	US\$263,150	42.6%
	Cofinancing (if any):	-	-
	<b>Total project budget:</b>	<b>US\$617,650</b>	<b>100%</b>
<b>Execution and disbursement period:</b>	Execution period: 36 months		
	Disbursement period: 42 months		
<b>Special contractual conditions:</b>	Conditions precedent to the <i>first disbursement</i> : (i) agreement signed between AgroFrontera and CCN stating the commitments of the parties; and (ii) entry into force of the Operating Regulations agreed upon with the Bank. The <i>execution conditions</i> will be: (i) agreements signed between the fisher organizations and AgroFrontera stating the responsibility between the parties; (ii) agreement signed between the Ministry of Environment and Natural Resources and AgroFrontera to work on the issue of governance (comanagement plan) for fishing in the Estero Balsa Mangrove National Park.		
<b>Environmental and social impact review:</b>	This operation has been pre-evaluated and classified as category “C” according to the requirements of the IDB’s Environment and Safeguards Compliance Policy (Operational Policy OP-703). The project was reviewed by the ESG in April 2015.		
<b>Unit with disbursement responsibility:</b>	MIF staff at The Bank’s Country Office in the Dominican Republic (MIF/CDR).		



## I. BACKGROUND AND RATIONALE

### A. Assessment of the problem to be addressed by the project

- 1.1 The region of Latin America and Caribbean (LAC) possesses one third of the planet's freshwater resources as well as abundant natural capital that is being greatly pressured by food production demands. The report, "The next global breadbasket: How Latin America can feed the world. A call to action for addressing challenges and developing solutions,"<sup>12</sup> summarizes the enormous challenge faced by the LAC region to increase its production without expanding agriculture into environmentally sensitive areas, diminishing its production capacity, or compromising on quality.
- 1.2 The report, "Environmental impacts in corporate supply chains: Opportunities for SMEs in Latin America and the Caribbean,"<sup>13</sup> identified the food sector as having the greatest environmental impact in terms of inflows and outlays, and particularly in the food value chain, given the high consumption of inputs (water, agrochemicals, soil, etc.), pollution, and the significant volume of greenhouse gases generated in the agriculture-livestock and processing phase.
- 1.3 This pressure on food production jeopardizes the natural capital required for sustainable production. For this reason, it is strategic to promote the adoption of good practices in climate-smart production that incorporate the *most efficient use* of resources and resting them for *regeneration*.
- 1.4 This project will serve the rice<sup>14</sup> and fish and seafood sectors, which share freshwater resources in coastal areas. The initiative seeks to minimize the domino effect when the rice sector, located upriver (in the buffer zone of Montecristi National Park), uses large quantities of agrochemicals with a high nitrogen content, resulting in highly contaminated runoff that pollutes the fresh water flowing in the rivers. It will also show how this water affects the health of coastal ecosystems such as mangrove forests that take up fresh water, on which marine reproduction and the economy of coastal communities depend.
- 1.5 Mangrove forests are an ecosystem comprised of a **swamp forest**<sup>15</sup> where river fresh water mixes with salt water from the sea. It serves as a habitat for a great diversity of **natural capital** including fish, crustaceans, mollusks, birds, and salt-tolerant plant species, as well as manatees. For this reason, it is considered one of the five most productive ecological units in the world and the world's seventh largest economy.<sup>16</sup> Healthy mangrove forests are dependent on the fresh water that runs through them. The word mangrove comes from the name of the tree that predominates in the system, which is characterized by its aerial roots.

---

<sup>12</sup> <http://publications.iadb.org/handle/11319/6436?locale-attribute=es>, Zeigler, Margaret; Truitt Kakata, Ginya/April/2014

<sup>13</sup> Trucost and MIF report, forthcoming.

<sup>14</sup> Most of the rice is grown using the flooding system and is estimated to use two and a half times more water than is required to grow wheat and corn.

<sup>15</sup> Also called a salt marsh or amphibian forest due to its ability to adapt to different levels of salinity and resist flooding.

<sup>16</sup> <http://www.wwf.de/fileadmin/fm-wwf/Publikationen-PDF/WWF-Report-Reviving-the-Ocean-Economy.pdf>.

- Besides being a source of life and food, it is also a greenbelt and carbon sink<sup>17</sup> that is important for the climate change **adaptation** process, since it protects coastal areas from erosion resulting from higher sea levels, wind, storms, and extreme natural disasters (hurricanes and tsunamis). Mangrove destruction<sup>18</sup> also contributes to climate change, since carbon is released and the mangroves' carbon sequestration/fixation capacity is destroyed. The carbon stored, fixed, and released in the coastal ecosystems composed of mangroves, seagrass beds, and salt marshes is called **blue carbon**.<sup>19</sup>
- 1.6 Coastal ecosystems in general and mangroves in particular are estimated to fix ten times more carbon than tropical forests, due to the organic matter that does not decompose but is converted to sedimentation that in turn helps to sequester more carbon. A recent study<sup>20</sup> indicates that the 6,260 hectares of mangroves in Montecristi National Park contain 3,841,491 tCO<sub>2</sub>e, one of the largest tropical deposits ever measured. Destroying the mangroves releases this blue carbon, so their conservation is a key strategy for climate change mitigation.
- 1.7 The **problem** to be addressed is the low competitiveness of the small-scale rice growers, artisanal fishers, and clam harvesters in the province of Montecristi, which stems from the fact that they use unsustainable production systems that reduce their incomes and threaten the conservation of the coastal ecosystem on which they depend for the sustainability of their economic activities.
- 1.8 **Project location.** Montecristi National Park (PNM) has six protected areas, including the Estero Balsa Mangrove National Park (PNMEB) and the Montecristi Underwater Park, which are the nexus of biodiversity conservation and sustainable fishing and farming systems in the region. The PNM has 137 km of coastline, where the five communities that will benefit<sup>21</sup> from the project are located. Rice farming dominates the PNMEB buffer zone. The canals and rivers that drain the



<sup>17</sup> Mangroves sequester an estimated 5 to 10 times more carbon than tropical forests. [http://thebluecarboninitiative.org/wp-content/uploads/blue\\_carbon\\_policy\\_framework\\_2\\_0.pdf](http://thebluecarboninitiative.org/wp-content/uploads/blue_carbon_policy_framework_2_0.pdf).

<sup>18</sup> Globally, mangroves are being deforested 3 to 5 times faster than forest areas. <http://www.wwf.de/fileadmin/fm-wwf/Publikationen-PDF/WWF-Report-Reviving-the-Ocean-Economy.pdf>.

<sup>19</sup> [http://thebluecarboninitiative.org/wp-content/uploads/blue\\_carbon\\_policy\\_framework\\_2\\_0.pdf](http://thebluecarboninitiative.org/wp-content/uploads/blue_carbon_policy_framework_2_0.pdf).

<sup>20</sup> Kauffman, J. B., C. Heider, J. Norfolk, and F. Payton. 2014. "Carbon stocks of intact mangroves and carbon emissions arising from their conversion in the Dominican Republic." *Ecological Applications* 24(3), pages 518-527.

<sup>21</sup> Punta Rucia, Loma Atravesada, Buen Hombre, Manzanillo, and Pepillo Salcedo.

over 15,000 hectares of rice fields empty into the PNMEB. Two principal drains, Cañada el Tapión and Río Chacuey, are the primary source of fresh water for the PNMEB, into which the water used upstream for farming is discharged.

### **Description of the rice sector and problem to be addressed**

- 1.9 Montecristi Province produces the highest quality and yields of rice in the country, due to the region's agro-ecological conditions (rich soils, sufficient irrigation water) and climate conditions (more than 8 hours of sunlight). Because of these conditions, rice can be harvested twice a year.<sup>22</sup> Whereas the average national production is 3.5 quintals per tarea (a unit of 628 square meters), yields in Montecristi are 7.3 quintals per tarea.<sup>23</sup>
- 1.10 The **rice value chain** in the region is comprised of: (i) around 3,800 growers, most of them unorganized, with 15,700 hectares under cultivation; (ii) intermediaries and marketers; and (iii) mills, packagers, and distributors. The intermediation chain is quite long, and producers tend generally to be organized around their source of financing.
- 1.11 The grassroots growers organization is weak and therefore lacks the ability to collectively market the crops. Informal intermediation prevails in the chain, since intermediaries provide a wide range of services to small-scale producers, as well as **high-cost financing**. They also supply inputs, facilitate farm operations (machinery to prepare the soil and harvest), and are involved in selling rice to the mills. At the end, they pay the producer whatever remains from the sale of their product after deductions for services rendered, without providing an itemization of the cost for each service. This heavy dependence on intermediaries significantly limits the opportunities of rice growers to move up in the value chain.
- 1.12 The **poor production practices** used today by small-scale rice growers deplete the soil and pollute the water, hurt their productivity, and raise production costs. These practices include: (i) flooding instead of using water efficiently to wet the soil and retain nutrients and accumulated organic matter; (ii) poor crop management which leads to the over-use of agrochemicals (fertilizers and pesticides); and; (iii) dependence on a limited number of rice varieties, which exposes the crop to catastrophic losses from being ill-adapted to local conditions.<sup>24</sup> This illustrates the need to introduce an integrated production system to manage rice crops that better conserves natural resources and lessens dependence on agrochemicals and the consumption of irrigation water, while producing the same or higher yields than conventional rice.
- 1.13 Over the last two years, AgroFrontera, in collaboration with the Inter-American Institute for Cooperation on Agriculture (IICA), worked with producers and technical specialists in the area on an experimental project to introduce the practices of the Sistema Intensivo de la Cultivo de Arroz [Intensive Rice Cultivation System] (SICA),<sup>25</sup> which had positive results (see paragraph 2.24).

---

<sup>22</sup> Spring harvest (December to May) and winter harvest (June to November).

<sup>23</sup> AgroFrontera benchmark.

<sup>24</sup> In recent years the crop was attacked by delphacid pests and invasive snails, which resulted in heavy crop losses.

<sup>25</sup> <http://sri.ciifad.cornell.edu/spanish/>.

**Description of the fish and seafood sector, problem to be addressed, and markets**

- 1.14 The **fish and seafood value chain** is comprised of: (i) primary fishers (around 500 in the region and 15,000 nationwide), most of whom are men, unorganized, and operate under informal conditions; (ii) small-scale intermediaries called “pescaderías” [fish markets] that essentially sort, collect, refrigerate, and transfer the product of the communities to the immediate market; (iii) medium and large-scale intermediaries that collect and transfer the catch to supermarkets and restaurants. There are informal organizations of women who harvest clams. These organizations collect the product, sell it live upon request, and receive payment up to 15 days after delivering the product.
- 1.15 **Fisher associations** are quite weak and operate more like solidarity organizations to safeguard the coast and its natural resources. Some of them are still in the process of certification, most members operate without a license, and fish and sell their catch individually due to a lack of: (i) working capital that would enable them to buy the catch from their members; and (ii) production infrastructure that would facilitate collecting the catch (a bulking subcenter with refrigeration equipment), to sell in bulk. Most of the fishers do not own boats or have access to formal credit, and so depend on fish traders to supply boats, motors, tackle, and working capital for off-shore fishing trips, in order to guarantee the product. As a result, the fishers are obligated sell their catch to these fish traders at prices well below market value.
- 1.16 Only one organization, the Buen Hombre Fisher Association, experimented with a pilot project where the fishers supplied fresh fish to supermarkets in Santiago and Santo Domingo through an intermediary (PescaFrontera). The experience was good, but the association was unable to provide enough product to the market on an ongoing basis.
- 1.17 Destructive and illegal **fishing practices** have led to drastic reductions of commercial fish stocks in the region. Low yields in the fish and seafood value chain can be attributed to the use of unsustainable fishing practices, the lack of proper post-catch handling (e.g. cold chain maintenance), and the lack or insufficient number of bulking facilities. As a result, the product does not meet the quality and freshness standards demanded by the market. The majority of fishers freedive in coastal waters, leading to overfishing of coastal marine ecosystems. Artisanal fishers have not developed skills in responsible fishing practices (such as use of hook and line, fish aggregation devices, and basket traps), which are more efficient and less damaging to marine ecosystems.
- 1.18 The **market** has trouble identifying suppliers that can supply fresh, quality fish on an ongoing basis with the proper traceability. The company Centro Cuesta Nacional (CCN),<sup>26</sup> which operates a chain of supermarkets in the country, participated in the pilot phase conducted by AgroFrontera to connect fisher organizations with the market (see paragraph 2.22). CCN has an initiative called Corazón Dominicano [Dominican Heart]<sup>27</sup> through which it helps small-scale producers improve their products and open or expand their markets. This project

---

<sup>26</sup> <http://www.centrocuestanacional.com/>.

<sup>27</sup> <http://www.orgullodemitierra.com.do/corazondominicano/>.

dovetails with that initiative and its vision and entrepreneurial commitment, which is why CCN is a strategic partner in this project.

- 1.19 **Regulatory agencies.** The **Dominican Fishing and Aquaculture Council (CODOPESCA)**<sup>28</sup> regulates fish and aquaculture production under Law 307/2004. It is an independent agency with a board chaired by the Minister of Agriculture, among other government agencies. The country has 200 fish landing and receiving points in rivers, beaches, or reservoirs and 10 service stations, one of them located in Montecristi. As a regulatory agency, it ensures that fisher organizations and their members meet the following requirements: (i) they have a fishing license (100 pesos/year); (ii) the watercraft (yawls) are named and registered; (iii) they comply with established closed seasons (e.g., closed season for catching and selling lobster or other regulated species, depending on the season); (iv) species of fish are caught according to the allowable size using authorized fishing gear. The **Ministry of Environment and Natural Resources** is the governing authority for comanagement and governance plans formulated for the country's protected areas. AgroFrontera has been exploring this issue with the Vice Ministry of Coastal and Marine Resources and the Vice Ministry of Protected Areas and Biodiversity for its development in Montecristi National Park.

## **B. Project beneficiaries**

- 1.20 **Direct beneficiaries.** The project will increase the revenues of eight producer organizations: one rice farmers organization, five artisanal fisher organizations, one women's clam harvesting association, and one potential federation of fish and seafood producer associations, located in six communities of Montecristi Province. It is expected to support a total of 310 fishers and 300 rice growers.<sup>29</sup> The project will also help to improve the environment and the health of coastal ecosystems in the Montecristi region and increase the climate change resilience of 1,000 households in these communities.
- 1.21 **Rice farmers.** A small rice farm in the project area has 2.5 to 6 hectares of land (95% of growers), and a medium-sized farm has 7 to 15 hectares (5%). Only 5% of rice farmers are estimated to be women. The flooded rice production system is a continuous monocrop, with farmers planting two rice crops per year. The beneficiary organizations are located in the General Fernando Valerio Irrigation District.
- 1.22 **Fishers and seafood harvesters.** Many of the artisanal fishers are young men (between the ages of 18 and 25). Women are engaged in harvesting clams and conch in near-shore waters, and some are involved in post-catch handling activities. Any member of the community may belong to the associations by committing to abide by its principles, pay dues (100 pesos), and follow CODOPESCA regulations.

## **C. Contribution to the MIF mandate, Access Framework, and IDB strategy**

- 1.23 This project contributes to the MIF mandate of private sector growth and poverty reduction in several different ways. It will promote best practices in production to improve productivity and lower input costs, while protecting and expanding

---

<sup>28</sup> <http://www.codopesca.gob.do/>.

<sup>29</sup> These organizations currently have 209, 17, and 125 members, respectively.

- livelihoods dependent upon natural capital such as mangrove forests and fish stocks. In Montecristi Province, 59.7% of the population is poor or extremely poor, compared to 40.7% for the Dominican Republic as a whole.
- 1.24 This project is part of a group of operations that promote more sustainable food systems in the value chains, where the greatest environmental and ecological impact is concentrated. This is the *first MIF/Bank operation* to promote blue carbon capture.
- 1.25 **Link with the Agenda.** The project will contribute to leveraging natural capital through more sustainable mangrove management, while strengthening small businesses in key value chains (rice cultivation, fishing, and seafood) that are associated with healthy coastal ecosystems. By promoting mangrove conservation, the project also contributes to improving the climate change resilience of coastal communities and to fixing carbon as a climate mitigation measure.
- 1.26 **Collaboration with the IDB Group.** The project activities will take place in one of the poorest parts of the northeastern region, and will provide a significant learning opportunity for the Bank, particularly its Climate Change Division (CCS) and Natural Resources Division (RND), in the area of mangrove conservation and its linkage to strategies for climate change adaptation and mitigation and blue carbon fixation/sequestration. Its objective is consistent with the Bank's country strategy with the Dominican Republic 2013-2016, particularly in productive sector development, which has the objective of boosting the competitiveness and productivity of micro, small, and medium-sized enterprises and the adoption of new technologies and innovation in their productive processes, in order to facilitate links with new markets. The project will also help to generate knowledge for other MIF operations in preparation.<sup>30</sup>

## II. OBJECTIVES AND COMPONENTS

### A. Objectives

- 2.1 The project's expected *impact* is to contribute to improve the economic performance of rice producers and providers of fresh fish and seafood to the markets of Santo Domingo and Santiago using responsible production practices that improve the environment and conservation of the coastal ecosystem.
- 2.2 The expected *outcome* is that rice growers as well as artisanal fishers and seafood harvesters in Montecristi Province will adopt best practices enabling them to raise their productivity and the quality of their products, while optimizing the use of resources in the coastal marine ecosystem.

### B. Description of the model/solution/intervention

- 2.3 The development model is integral and holistic, seeking to: (i) strengthen group production and marketing capabilities in order to shorten the intermediation chain that sharply limits the incomes and greater involvement of producers in the value chain; (ii) certify fish and seafood producer organizations that adopt climate-sustainable and climate-smart practices and create conditions of improved (basic)

---

<sup>30</sup> SAFE sustainable agriculture platform.



traceability of products; and (iii) provide individual access to finance. All of the above will contribute to: (i) create the conditions for rapid expansion of rice production and the catch and marketing of sustainable fish and seafood; (ii) create a stronger collaboration between producer/fisher communities and other value chain stakeholders; and above all (iii) improve the environment and coastal ecosystem.

## **C. Components**

### **Component I: Strengthening of rice farmer, fisher, and seafood harvester organizations (MIF: US\$53,175)**

- 2.4 The objective of this component is to improve the organizational, administrative/accounting, governance, and business performance capacity of these organizations and to help them operate *formally* within the chain. It will work to identify and groom leaders and to expand membership in the organizations. These organizations will be strengthened in the areas of dispute settlement and climate change.
- 2.5 **Eligibility criteria.** The fisher organizations eligible for the project are located in Montecristi National Park and are committed to adopting sustainable fishing practices. Their members must comply with CODOPESCA regulations (see paragraph 1.19). Six fisher organizations could potentially participate: (i) four that have already had dealings with AgroFrontera; (ii) a new one to be established by female clam harvesters; and (iii) another that has not yet had dealings with AgroFrontera (Asociación Punta Rucia). The rice farmer organization will be ArroEcoZ, which will be registered in connection with this operation. As an *execution condition*, eligible organizations will sign an agreement with AgroFrontera stating the terms of their participation, and compliance will be monitored and evaluated during project execution.
- 2.6 The component activities are as follows: (i) development and implementation of educational and outreach materials and educational programs to better enable each organization to manage their business; (ii) activities to lower transaction costs and increase the quality, consistency, and volume of products available to high value markets; (iii) strengthening of the administrative/accounting and production capabilities of the organizations, promoting group procurement of inputs, individual access to finance, and record-keeping to demonstrate the group's production capacity. Producers will receive assistance from technical extension workers with the Instituto Agrario Dominicano [Dominican Agrarian Institute] (IAD), and will also benefit from the trainings and knowledge generated during the project.
- 2.7 In terms of **outcome**, a standard will be achieved in the administrative and financial management of the organizations. Other outcomes include the adoption of sustainable artisanal fishing practices, improved post-harvest management, basic infrastructure necessary for bulking (small bulking subcenters), group procurement (diesel, etc.) and bulk sale of fish, and the establishment of a small working capital fund for the organizations to buy product from members (inquiries will be made regarding whether such an instrument will be possible).

**Component II: Adoption of sustainable practices by organizations  
(MIF: US\$150,500; Counterpart: US\$18,900)**

- 2.8 The objective of this component is to train the organizations in best practices to achieve more sustainable production systems, particularly in the identified fish, seafood, and rice value chains. The main activities associated with this component are:
- 2.9 For the *rice* systems: (i) educational and outreach programs will be designed and implemented to promote the adoption of sustainable rice production practices (the SICA system);<sup>31</sup> (ii) training in integrated pest, nutrient, disease, weed, and water management as part of a sustainable production system will be offered to small-scale farmers and field technicians of the Ministry of Agriculture, Instituto Agrario Dominicano [Dominican Agrarian Institute] (IAD), and Instituto de Recursos Hidráulicos [Water Resources Institute] (INDRHI).
- 2.10 For the *artisanal fishing* systems: (i) training materials and a manual will be developed on responsible fishing systems practices, and training sessions will be organized on these materials; (ii) fisher associations will be trained in a variety of post-harvest systems practices and landing data collection and management; (iii) basic infrastructure will be improved by renovating or installing bulking subcenters in the coastal communities, to help improve post-catch management of the product and facilitate bulk storage; (iv) for clam harvesters, a reproduction system will be set up that facilitates harvesting and increases productivity while preserving marine biodiversity; and (v) certification of the fishing value chain (organizations, bulking subcenters, and bulking center) will be promoted with the Artysanal<sup>®</sup> certified label of the SMall-scale and ARTisanal fishing (SMART<sup>®</sup>) Organization.<sup>32</sup>
- 2.11 The main expected **outcomes** are: (i) four associations certified in responsible fishing; (ii) three bulking centers established; (iii) a 40% reduction in the use of fertilizers for rice production; (iv) 300 rice farmers trained in sustainable rice production; and (v) 300 fishers adopting sustainable fishing practices.

**Component III: Formal integration of fisher organizations into the value chain (MIF: US\$7,500; Counterpart: US\$26,800)**

- 2.12 The objective of this component is to help fish and seafood producer organizations enter the high value market (such as the CCN supermarket chain), to increase product volume, ensure the quality sought by the market, and ensure efficient payment and settlement processes.
- 2.13 CCN expressed interest in: (i) continuing its commercial relationship with PescaFrontera (the company created by AgroFrontera to facilitate the bulk sale of fish, with which it has been doing business for three years); (ii) buy fresh fish and seafood in the different product categories (most interest in category 1<sup>33</sup> and

---

<sup>31</sup> This planting system employs a set of farming practices leading to a reduction in the use of inputs (seed, agrochemicals, and irrigation water) without compromising yields in comparison with conventional rice production.

<sup>32</sup> <http://www.artysanal.org/en/about-us/>.

<sup>33</sup> Fish categories are by species type and size. There are four categories, with category 1 the most prized by the market (red snapper, rainbow runner, and Atlantic scombrops).



- 2, and in facilitating the sale of other categories); (iii) supply refrigeration equipment to AgroFrontera to ensure proper management of the cold chain; (iv) pay for the product within 5 days; (v) in conjunction with AgroFrontera, conduct workshops and other post-catch management training activities in the coastal communities, and make scheduled and surprise inspections to ensure compliance with good practices, traceability, and product freshness; (vi) formalize the business relationship through agreements and contracts, and potentially consider other contributions based on the project outcomes; and (vii) facilitate acceptance of the product in the province of Santiago (the province closest to Montecristi, 166 km away) instead of Santo Domingo (270 km away). To do this, the executing agency will sign an agreement with CCN stating the terms of the parties' contributions and responsibilities.
- 2.14 **Access to credit.** Banco de Ahorro y Crédito ADOPEM is a financial institution serving the micro, small, and medium-sized enterprise market. It has experience in microlending to the agricultural sector and has been an executing agency and partner on MIF projects with highly successful outcomes. Using project resources, it will use its proven methodology to provide financial education to the organizations, enabling them to strengthen their internal and business operations. ADOPEM will also strengthen the regulations developed by AgroFrontera to help the organizations manage the working capital<sup>34</sup> allocated to them as a loan. Using its *own resources*, ADOPEM has committed<sup>35</sup> to make individual loans to support producers in the fishing and seafood and rice sectors. Starting in 2016, it plans to expand its operations into Montecristi, one of the few provinces where it is not yet active.<sup>36</sup>
- 2.15 This component includes the following activities: (i) signing of commercial agreements between the anchor companies and the fisher organizations; and (ii) training and financial education offered to the associations and their members. The expected outcomes are: (i) three agreements signed between the farmer/fisher associations and buyers; (ii) three bulking subcenters in operation; and (iii) access to finance for small-scale producers of rice, fish, and seafood (broken down by gender).
- 2.16 The project seeks to strengthen the capacity and information system of the organizations, so that in the future they can access group financing, enabling them to do business more directly with the market and get better prices.

**Component IV: Knowledge management and dissemination  
(MIF: US\$15,450; Counterpart: US\$83,000)**

- 2.17 This project will contribute to reducing the knowledge gaps of the Natural Capital and Adaptation agendas, generating knowledge and lessons learned to establish: What are the most effective ways to influence local communities and the private sector to improve sustainable production while increasing income and reducing their environmental impact? How can micro, small, and medium-sized enterprises (MSMEs) contribute with specific solutions to build climate resilience? How do

---

<sup>34</sup> This small fund consists of an average of US\$2,000 per organization.

<sup>35</sup> Letter of expression of interest submitted.

<sup>36</sup> Other entities active there, such as Fondo Especial para el Desarrollo Agropecuario (FEDA) and Fondo de Desarrollo (FONDESA), are in the process of conversion into banking institutions.

business models support sustainable management of coastal areas by small-scale producers, the low-income population, and MSMEs, while increasing their incomes and improving their competitiveness?

- 2.18 The objective of this component is to systematize, document, and disseminate the experience and knowledge generated in this project, in order to replicate and broaden the results obtained through these pilot initiatives. The project's strategic audiences are: (i) producer organizations located in the coastal region; (ii) anchor companies that are highly dependent on the coastal ecosystem and may be interested in greening their supply chain; (iii) the government through the Dominican Fishing and Aquaculture Council (CODOPESCA) and the Ministry of Agriculture with interest in expanding sustainable fishing and rice farming practices, the National Climate Change Council and Clean Development Facility, and the Climate Change Secretariat, to explore ways to access international carbon finance, and the Ministry of Environment and Natural Resources, to promote comanagement plans in protected areas; and (iv) development organizations promoting green growth.
- 2.19 A comanagement plan for the Montecristi National Park protected area will be developed in conjunction with the Ministry of Environment and Natural Resources. This plan is expected to govern (management and governance) fishing activities and identify collective actions to be carried out by the communities in order to reasonably manage the "common pool of resources." For this, AgroFrontera will sign an agreement with the ministry to work together on formulating this plan, establishing how it will be disseminated and implemented. To meet the knowledge needs of these audiences, the following knowledge products will be developed under the project: (i) an audiovisual product; and (ii) a case study for the other audiences to support the dissemination and replication of the models developed. Each year, the executing agency will update the project fact sheet that contains basic information on the project, its challenges, the intervention strategy, and outcomes. The learning expenses of the MIF team will be covered with funds from the Agenda Account.

#### **D. Project governance and execution mechanism**

- 2.20 The project execution unit (PEU) will be set up within AgroFrontera and will be comprised of AgroFrontera's general manager, who will act as project coordinator, an accounting/administrative specialist, and a team of three supporting technical specialists, in addition to the PEU personnel. The team working in the PEU will be financed with counterpart resources. The project coordinator is responsible for project execution and ensuring that the objectives are met, and commitments fulfilled. Details of the coordinator's role and responsibilities and the project's organizational structure can be found in the project Operating Regulations.

#### **E. Sustainability**

- 2.21 The project is expected to achieve sustainability based on the validation and successful adaptation of the business model for the two sectors. In the case of the fishing sector, the continued operation of PescaFrontera will be explored, which would pave the way for involvement of the organizations in the marketing business or the creation of a federation of associations as a principal point of

contact with customers that would ensure the homogeneity and quality of the product and all business dealings. This will be analyzed during project execution and will depend on the growth and organization demonstrated by the grassroots associations. In the rice sector, the organization is expected to be formally established, enabling it to operate on better terms with the market.

- 2.22 Before the project has been fully executed, a **sustainability workshop** will be held with all parties involved, to identify the measures necessary to ensure continuity of the project actions once the funding ends.

#### **F. Lessons learned from the MIF or other institutions in project design**

- 2.23 **MIF and executing agency experience.** AgroFrontera conducted a small project to promote an alternative model for mangrove conservation, by improving production practices of fishing and rice farming systems. The results of this small initiative<sup>37</sup> in the *fishing sector* were: (i) a more efficient catch as a result of training (25% decrease in waste); (ii) increased confidence and capacity of the associations as a result of absorbing the middleman role; (iii) improved product quality from a better understanding of market needs and a closer relationship with buyers (supermarkets and restaurants); and (iii) higher profitability when boats, gear, and facilities are owned by the fishers themselves. This investment in local capacity and market system knowledge led to higher profits (up to 50%) for fishers and their associations compared to the conventional system. This was also possible due to the creation of a revolving fund for the associations. In the *rice sector*, the farmers were able to reduce their fertilizer use by 55%, and their chemical pesticide applications by 67%, and in many cases eliminate the use of a broad spectrum of highly toxic agrochemicals. The farmers increased their profits 25% to 50% per hectare due to the reduced consumption of inputs. These good practices were shown to lower production costs while maintaining high yields, and in many cases the adoption of these practices kept small-scale farmers from going into bankruptcy. In other MIF operations,<sup>38</sup> experience was gained in working with fishers and the coastal communities.
- 2.24 **Lessons learned.** This project incorporates the following lessons learned: include community-based planning and implementation activities, increase public-private dialogue for project coordination and monitoring, include the market in project preparation, promote tangible resilience investment opportunities to the private sector, clearly define the roles of the people within the organization responsible for administrative, technical, business, logistical, and membership promotion issues, engage young conservation leaders, employ mentors for younger fishers, create a revolving fund to finance fishing trips, avoiding dependence on middlemen, include simple equipment to maintain the cold chain, improve the association's post-catch facilities, train association leaders in basic record-keeping and accounting to improve the accuracy and transparency of the group's finances and operations, the importance of developing protocols for basic traceability of products, and the importance of supermarket chains, restaurants, and import-export companies visiting the fishing villages to train fishers in proper handling procedures. These

---

<sup>37</sup> Payton, F., J. Norfolk, and J. Wiener. Northern Hispaniola Conservation and Development Planning Program. Final report for the MacArthur Foundation. December 2014.

<sup>38</sup> Operations DR-M1035, Support for Coral Reef Conservation through Coral Gardening to Enhance Tourism, and BR-M1040, Support for Environmentally Sustainable Integrated Production.

sessions were good opportunities for the buyers to gain a deeper appreciation of the arduous tasks and risks of the fishers' work to supply them. The project created more direct links between the fisher associations and the market, requiring them to take over the middleman activities and provide logistical support to their members.

- 2.25 In the *rice sector*, as a result of the initial pilot project, water testing showed that conservation practices substantially reduced nutrient levels in drainage waters within the target area, compared to nutrient levels of drainage structures associated with conventional rice production. This suggests that water quality in adjacent coastal estuaries can be improved by implementing conservation production practices in other rice growing areas. In the CARIBSAVE project (RG-M1120), which aims to develop community resilience plans for similar communities, the lack of financial resources was one of the main factors limiting the ability of MSMEs to improve how they perform their livelihood activities. The need for financial resources is as important as raising awareness and providing training on climate change.

#### **G. The MIF's additionality**

- 2.26 **Nonfinancial additionality.** MIF support will help raise awareness of the importance and value of conserving mangroves and the associated marine ecosystems, and will signal to the rice and fish and seafood markets that Montecristi is aggressively pursuing market-based conservation and sustainable economic development for small-scale food producers. The MIF's involvement will also increase the visibility and credibility of this business model among primary producer associations and the market and may offer technical advisory support and sharing of know-how from projects related to the development of value chains.
- 2.27 **Financial additionality.** MIF financial support will provide important funding leverage that will help AgroFrontera secure external funding from other donors to achieve the proposed match (MacArthur Foundation).<sup>39</sup> MIF funding will also allow partners to facilitate sustainable mangrove management and report on their contribution to blue carbon sequestration, so that they can be part of another future initiative that will be able to access international climate change resources through a measurement, reporting, and verification (MRV) system.

#### **H. Project outcomes**

- 2.28 The expected outcome is that rice producers as well as artisanal fishers and seafood harvesters in Montecristi Province will adopt best practices enabling them to improve their productivity and the quality of their products, while optimizing the use of resources in the coastal marine ecosystem.

---

<sup>39</sup> The MacArthur Foundation (<http://www.macarthur.org>) is a nonprofit organization headquartered in Chicago that supports people and institutions committed to building a more just, verdant, and peaceful world. It promotes the conservation of ecosystems and their species, sustainable development, and other issues, and financed AgroFrontera's initial pilot project on mangrove conservation in the Dominican Republic.

Indicator (CRF Code) <sup>40</sup>
20% Increase in production volume of high-quality* rice (metric tonnes/tarea)
25% Increase in catch volume of high-quality* fish and seafood (kg)
25% Reduction in production cost of rice (sustainable vs. conventional) (US\$/ha/cycle)
2 Number of new markets accessed by rice farmers and fishers (CRF 230200)
4,743 Number of hectares of mangroves sustainably preserved (CRF 240100)

## I. Project impact

- 2.29 The project's expected impact is to help improve the economic performance of rice producers and suppliers of fresh fish and seafood to the markets of Santo Domingo and Santiago through the use of responsible production practices that improve the environment and conservation of the coastal marine ecosystem.

Indicator (CRF Code)
15% Average annual sales growth of fisher associations (CRF 330100)
10% Average annual sales growth of the rice farmer association (CRF 330100)
150 Number of agricultural producers with annual sales growth over more than 10% (CRF 330101)
175 Number of fishers with annual sales growth over more than 10% (CRF 330101)
20% Percentage reduction in nutrient pollution of surface water
3,693,722 metric tonnes of carbon dioxide equivalent (tCO <sub>2</sub> e) avoided by mangrove conservation (CRF 340100)

## J. Systemic impact

- 2.30 **Replication potential.** This project has potential for replication in other parts of the Dominican Republic and other countries that have similar ecosystems.
- 2.31 **Potential influence on environmental regulation.** The project seeks to influence CODOPESCA, the Ministry of Environment and Natural Resources, the Ministry of Agriculture, and the Climate Change Secretariat to improve the policies and regulations within their purview for responsible management of the coastal ecosystem. The project model can also serve as a strategy for mangrove forest conservation and climate change mitigation and adaptation. This project could also impact the development of a Measurement, Reporting, and Verification (MRV) system on blue carbon sequestration in Dominican mangrove forests that rigorously demonstrates the country's mitigation efforts and could lead to international carbon finance resources from the climate funds.

## III. MONITORING AND EVALUATION STRATEGY

- 3.1 **Baseline.** Surveys, assessments, and direct testing will be conducted in the first six months of the project to quantify the institutional capacity of local organizations, the baseline incomes for rice growers and fishers, the volumes of agrochemicals from rice production in the buffer zone of the Estero Balsa

<sup>40</sup> The targets for the different indicators will be set, once the baseline has been determined.

- Mangrove National Park (PNMEB), nutrient pollution in fresh water, and the exact number of hectares to be protected. The baseline will be used to measure the project's impact and make any required midcourse adjustments to ensure that the project objectives are met.
- 3.2 **Monitoring.** Using the project resources, AgroFrontera will develop monitoring systems to collect data on project outputs, outcomes, and impacts at regular intervals. Qualitative and quantitative information on project performance will be collected through survey questionnaires, stakeholder focus group discussions, and project records. Rigorous data validation and analysis procedures will be used for reporting, results-based management, and learning.
  - 3.3 **Evaluation.** A midterm and a final evaluation will be conducted with the contribution resources, and will be contracted directly by the MIF. The midterm evaluation will be conducted 18 months after the first disbursement, or once 50% of the resources have been committed, whichever occurs first, and will include the following: (a) the relevance of the project components and activities for achieving the objectives set; (b) an assessment of the progress made during project execution based on the logical framework indicators, disbursement milestones, and Operating Regulations; (c) outcomes achieved in component execution; (d) deviations in the project execution process; (e) lessons learned during project execution; and (f) any recommendations deemed necessary for adjustments in project execution to meet the targets. Some of the questions for the *evaluations* are as follows: To what extent have technologies improved crop yields? How well have they been accepted by the beneficiaries? To what extent did they help reduce costs for the beneficiaries? What capacity did AgroFrontera demonstrate in terms of helping the beneficiaries? What other entities were trained, besides the producers and fishers? What areas should be improved? How effective was AgroFrontera's coordination work and decision-making in terms of streamlining execution? How involved are the technical staff of the businesses, communities, and other government agencies in ensuring proper implementation of the model and its replicability? What things could be improved in the project for another similar effort? Was the business model successfully established in the market? Was a more stable and permanent relationship achieved with the markets (CCN)? Are the expected returns and yields reflected in its records? What profit margins does it represent for all members? What aspects need to be fine-tuned? For the beneficiaries, how pertinent were the selection criteria?
  - 3.4 Based on the status reports and midterm review, AgroFrontera and the IDB/MIF project team will determine whether the project should continue or be adjusted, restructured, or even canceled in whole or part.
  - 3.5 The final evaluation of the project will be conducted two months before project completion (month 34), or once 90% of the MIF resources have been disbursed, whichever occurs first. In addition to the project's operational performance, it will also address lessons learned and recommendations for future projects, which will be disseminated to a target audience for the benefit of all interested parties. The project also envisages an impact evaluation, and a determination will be made as to its feasibility prior to project launch.
  - 3.6 **Closing workshop.** The executing agency will organize a **closing workshop** at the appropriate time, to jointly evaluate the outcomes achieved with other

stakeholders, identify any additional work required to ensure the sustainability of the actions begun by the project, and identify and disseminate lessons learned and best practices.

#### IV. COST AND FINANCING

- 4.1 The total cost of the project is US\$617,650. Of that amount, US\$354,500 (57.4%) will be contributed by the MIF, and US\$263,150 (42.6%) by the counterpart. The execution period will be 36 months, and the disbursement period will be 42 months.

Components	MIF (US\$)	Counterpart (US\$)	Total (US\$)
I. Strengthening of producer organizations	53,175	-	53,175
II. Adoption of sustainable practices by organizations	150,500	18,900	169,400
III. Formal integration of fisher organizations into the value chain	7,500	26,800	34,300
IV. Knowledge management and dissemination	15,450	83,000	98,450
<b>Execution and supervision</b>			
Executing agency/ administrative	21,500	134,450	155,950
Baseline	-	-	-
Monitoring system	10,000	-	10,000
Midterm and final evaluations	20,000	-	20,000
Launch and closing workshops and ex post reviews	17,000	-	17,000
Contingencies	15,025	-	15,025
<b>Subtotal</b>	<b>310,150</b>	<b>263,150</b>	<b>573,300</b>
<b>% of financing</b>	<b>54%</b>	<b>46%</b>	<b>100%</b>
Institution-strengthening (assistance/training in financial management and/or procurement, if applicable)	13,380	-	13,380
Impact Evaluation Account (5%)	17,725	-	17,725
Agenda Account	13,245	-	13,245
<b>Grand total</b>	<b>354,500</b>	<b>263,150</b>	<b>617,650</b>

#### V. EXECUTING AGENCY

- 5.1 Asociación de Productores Agropecuarios de la Frontera, Inc.<sup>41</sup> (AgroFrontera) will be the executing agency for this project and will sign the agreement with the Bank. AgroFrontera is a legally registered nongovernmental organization based in Montecristi, Dominican Republic, dedicated to sustainable agriculture, sustainable fisheries, and community development through the design and execution of collaborative, community-based initiatives that improve the environmental and social performance of food systems in the northwest Dominican Republic. For over 25 years, AgroFrontera leaders have worked directly with rice farmers and their institutions on a wide range of activities, including numerous research, education, and outreach projects and programs to improve rice farming practices. Over the past seven years, AgroFrontera has been working directly in artisanal fishing

<sup>41</sup> [www.agrofrontera.org](http://www.agrofrontera.org).

communities and value chains in Montecristi Province as direct result of collaborations with Counterpart International, the MacArthur Foundation, and others.

- 5.2 AgroFrontera created the company PescaFrontera S.R.L. to facilitate fish sales between small-scale fisher organizations and the market, and is the entity known to customers. It has storage and refrigeration infrastructure and is licensed to operate as a qualified supplier. AgroFrontera is considering continuation of this arrangement, which could contribute to sustainability of the business model proposed by this operation. It will also weigh the possibility of the fisher organizations gaining an equity stake, which would enable them to move up in the value chain and have a greater share of the business.
- 5.3 AgroFrontera will establish a project execution unit (PEU) and the structure necessary for it to effectively and efficiently conduct activities and manage project resources. AgroFrontera will also be responsible for delivering status reports on project implementation. Details on the PEU structure and the requirements for status reports can be found in the Operating Regulations.

## VI. PROJECT RISKS

- 6.1 Given its community-based approach and the strength of local partners, the project is low-risk. However, the following risks have been identified:

Risk	Mitigation and control measures
Involvement of multiple public and private stakeholders	Interagency agreements stating the roles and responsibilities of the parties will be signed, and coordination and monitoring meetings will be held.
A new certified label that is not yet recognized in the market	Since the fishers initially have the significant challenge of becoming competitive, consolidating their organizations, and improving their productive capacity, the expenses involved in artisanal fishing certification will be covered by AgroFrontera during the project. AgroFrontera is part of the organization promoting the development of this new SMART <sup>®</sup> certification, so it was considered the right time to validate the methodology in connection with the operation. As a result, the fishers are expected to get better prices on the market over time.
No access to finance for small-scale farmers and fishers	ADOPEM will be involved in the project, since it plans to begin expanding its operations in Montecristi in 2016 (see paragraph 2.14). ADOPEM has committed in writing to allocate its own resources to make individual loans to support producers in the fishing and seafood and rice sector.
Sensitivity in terms of crossborder security	There will be close coordination with the regulatory authority responsible for these issues, CODOPESCA, and the Ministry of Environment and Natural Resources. The fisher organizations and their members will in turn be trained in the settlement of disputes among fishers, which will also help solve potential problems arising during the organization and marketing stages.
Middlemen in the rice value chain perceive this operation as a threat to their business interests	The project will be limited to building the technical capacity of the producers and their organizations in a number of areas including agricultural issues, quality, climate change, financial education, and information control and record-keeping, so that over time they can access individual financing and in the future will have access to group financing, which will contribute to making them less dependent on middlemen or achieving a more equitable business relationship with them.



## **VII. ENVIRONMENTAL AND SOCIAL IMPACT**

- 7.1 The project's objectives are focused on improving the social and economic conditions of communities vulnerable to environmental degradation and climate change. The expected environmental and social impacts are positive and interlinked, and every component and activity has been designed to improve social cohesion and public-private dialogue and to foster the preservation of Dominican coastal ecosystems.

## **VIII. FULFILLMENT OF MILESTONES AND SPECIAL FIDUCIARY ARRANGEMENTS**

- 8.1 **Results-based disbursements and fiduciary arrangements.** The executing agency will comply with the MIF's standard arrangements related to results-based disbursements, procurement, and financial management.

## **IX. ACCESS TO INFORMATION AND INTELLECTUAL PROPERTY**

- 9.1 **Access to information.** The project information is considered public in accordance with the Bank's Access to Information Policy.
- 9.2 **Intellectual property.** The Bank will retain the intellectual property rights to all work and outcomes obtained under the project.