

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

HAITI

TECHNOLOGY TRANSFER TO SMALL FARMERS

(HA-L1059)

GRANT PROPOSAL

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ELECTRONIC LINKS	
Required	
1.	DEM Questionnaire http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=36226092
2.	Plan of Activities for first disbursement and first 18 months of implementation http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=36235313
3.	Monitoring & Evaluation Arrangement http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=36226098
4.	Complete Procurement Plan http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=36237327
5.	Risk Matrix http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=36226140
6.	Environmental and Social Management Report (ESMR) http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=36245941
Optional	
1.	Technical Study on Agriculture in the Northern Region http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=36234166
2.	Etude environnementale et sociale du Projet (HA-L1059) http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=36245135
3.	Manuel d'incitations HA-L1059 (Draft) http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=36245950
4.	Budget per output (HA-L1059) http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=36226133
5.	Évaluation économique HA-L1059 (Draft) http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=36245953

ABBREVIATIONS

DAAF	Directorate for Administration and Financial Affairs
DDA	Direction Départementale de l'Agriculture – Departmental Directorate for Agriculture
DEM	Development Effectiveness Matrix
DFPEA	Director of Training and Rural Entrepreneurship Promotion
DSE	Directorate for Monitoring and Evaluation
EMPBRAPA	Brazilian Agriculture Research Agency (Portuguese acronym)
EA	Executing Agency
FAO	Food and Agriculture Organization
GAFSP	Global Agriculture and Food Security Program
MARNDR	Ministère de l'Agriculture, des Ressources Naturelles et du Développement Rural
NAIP	National Agriculture Investment Plan
NGO	Non Governmental Organization
PEU	Project Executing Unit
PMDN	Programme de Mitigation des Désastres Naturels
PNIA	Plan National d'Investissement Agricole
RESEPAG	Renforcement des Services Agricoles
SNS	Service National Semencier
USAID	United States Agency for International Development
WB	World Bank

PROJECT SUMMARY
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Financial Terms and Conditions			
Beneficiary (grant): Republic of Haiti		Financial conditions of the grant	
Executing Agency: Ministry of Agriculture, Natural Resources and Rural Development (MARNDR)		Amortization Period:	N/A
		Grace Period:	N/A
Source	Amount	Disbursement Period:	5 years
IDB (GRF)	\$15,000,000	Supervision and Inspection Fee:	N/A
Local	0	Interest Rate:	N/A
Other/Co-financing (GAFSP)	\$25,000,000	Credit Fee:	N/A
Total	\$40,000,000	Currency:	US \$
Project at a Glance			
Project Objective/Description:			
<p>The goal of HA-L1059 operation is to contribute to sustainably improve small farmers' agriculture income and food security in the north and northeast department of Haiti. A total of 30,000 farmers will be given access to improved agricultural services and investment. The program comprises the following two components. <u>Component 1</u>: promoting improved and sustainable agriculture technology adoption. Includes non-reimbursable financial support for eligible farmers who agree to adopt technological packages from a menu set by the executing agency. <u>Component 2</u>: strengthening the National Seeds Service. This component includes assistance to the MARNDR to build capacity for control and regulation of seeds.</p>			
Special Contractual Clauses:			
<p><u>To first disbursement</u>: (i) the hiring of the additional fiduciary staff of the PEU (accountant, administrative assistant, procurement assistant) in accordance with terms of reference previously approved by the Bank (¶3.2); (ii) adoption by PEU of an operational regulation manual (¶3.4).</p> <p><u>Special contractual conditions prior to first disbursement of component 1</u> (i) recruitment of the cost and quality officer (¶2.12); (ii) creation of the roundtable with private inputs and services suppliers, farmers' representatives and Ministry of Agriculture representatives (¶2.12); (iii) elaboration of a Pest Management Plan (¶3.7); (iv) signature of a contract between the EA and the financial institution participating in the project (¶3.7) .</p>			
Exceptions to Bank policies: None			
Project qualifies for: SEQ[X] PTI [X] Sector [X] Geographic [] Headcount []			

(*) The credit fee and inspection and supervision fee will be established periodically by the Board of Executive Directors as part of its review of the Bank's lending charges, in accordance with the applicable provision of the Bank's policy on lending rate methodology for ordinary capital loans. In no case will the credit fee exceed 0.75% or the inspection and supervision fee exceed, in a given six-month period, the amount that would result from applying 1% to the loan amount divided by the number of six-month periods included in the original disbursement period.

I. DESCRIPTION AND RESULTS MONITORING

A. Background, problem addressed, justification

- 1.1 **Agriculture in Haiti: main constraints and opportunity.** Agriculture plays a dominant role in the Haitian economy, contributing over 25% of GDP, accounting for around 50% of overall employment, 66% of employment in rural areas, and 75% of employment in low income households. Over one million families own mainly small-scale subsistence farms, with an average farm size less than one hectare. Main agricultural crops include maize, tubers, mangoes, coffee, avocados, citrus, rice, sorghum, beans, cocoa; of which mangoes, coffee, cocoa, together with essential oils, represent the main Haitian exports. Milk production is low, but increasing over time; eggs and poultry are the principal source of animal protein for the population. Haiti imports more than 50% of its caloric requirements. Agro-industry development is incipient, except for essential oils¹.
- 1.2 While the majority of Haitians live below the poverty line (55% of the population is poor), the impact of poverty and of extreme poverty is far more important in rural areas, where 88% of individuals live below the poverty level and 59% earn less than US\$1 a day (MARNDR-PNIA, 2010).
- 1.3 Haitian agriculture has a high potential for growth and income generation, with an increasing demand for agricultural products in the local market and clear opportunities for export. The [Bank's most recent sector review](#) points out no less than 10 agricultural value chains that have significant growth potential, but lack of competitiveness are precluding economic benefits from that growth to occur. This lack of competitiveness is explained by the low levels of productivity at the farm level, mainly due to the difficult access of farmers to modern technologies and sustainable agricultural practices. This sector review also points out that Haitians' rural households are homogeneous in terms of access to finance and information as there are no extension services and no credit available.
- 1.4 In fact, most farmers in Haiti are confined to stagnant technologies with no clear contribution to higher crop yields, reversion of land degradation or adaptation of farmers to climate change. Typical agricultural producers do not use improved planting materials but simply the better seeds saved from the previous crop; they do not practice soil conservation or pest management techniques, and hardware is limited to hand tools. Except in the Artibonite Department where only a third of rural households use fertilizers and pesticides when available, less than 5% of households nationwide use those inputs. In the specific case of the Grand Anse and in the Northwest, the level of fertilizer use among farmers is nil². Furthermore, there is no quality control on agricultural inputs, especially seeds, provided by a very few number of providers in a non-competitive market; this lack of norms and quality control on seeds undermine the farmers' interest to invest in improved technologies. The lack of access to modern and effective

¹ MARNDR ; Plan National d'Investissement Agricole – PNIA, 2010

² IHSI; enquête sur les conditions de vie des ménages en Haïti; 2001

technologies is resulting in low farm income levels, land degradation, increased vulnerability of farmers to natural hazards and also food insecurity.

- 1.5 The role of the public sector in the provision of agricultural technology and dissemination of adequate production practices has been weak. During the 1970s and 1980s, the Ministry of Agriculture Natural Resources and Rural Development (MARNDR) implemented an agricultural extension service that was expensive and relatively inefficient. This service was interrupted as MARNDR budgetary resources started to decline in the late 1980s. The progressive withdrawal of the MARNDR from supporting technology transfer and extension was accompanied since the mid-90s by the expansion of NGO's implementing rural development projects including agricultural extension services and access to inputs, however with no clear indication of effectiveness. Meanwhile, public resources and MARNDR efforts focused on an inefficient distribution of subsidized fertilizers and seeds for cropping, which generated serious distortions in these input markets as most of it ended up being resold.
- 1.6 In 2009, the Government of Haiti decided to introduce a change in the approach to improve technological adoption indicators among farmers. Through an innovative mechanism of "smart subsidies" being implemented by the Natural Disaster Mitigation Program in Priority Watersheds (2187/GR-HA), financed with a US\$30 million grant approved by the Bank in October 2009, the Government is partially covering the adoption cost of economically-viable technological packages that promote agriculture intensification, soil conservation and sustainable natural resources management among 11,000 farmers in three watersheds. Through this mechanism, several efficiency and effectiveness gains are expected to be yielded: (i) farmers become less liquidity-constrained and more empowered to decide what to produce as they can choose between several technological packages that are production decoupled; (ii) technological packages and related technical assistance are mainly provided by NGO's and private sector, promoting the creation of service markets in rural areas; and (iii) as part of a global effort to strengthen the public service delivery, the role of Government is switched from input provider to responsible for defining the agriculture technological options as well as monitoring and evaluating impact results. A US\$5 million grant from the World Bank under the Strengthening of Public Agricultural Services Project (RESEPAG), approved in 2009, supports this income transfer mechanism. The proposed program is built upon those efforts to increase farm productivity through "smart subsidies" as a more efficient and effective mechanism to foster technological adoption in the agricultural sector.
- 1.7 **Government current strategy for the sector.** The proposed program is consistent with the vision for sector development stated in the Agriculture Policy Document for 2010-2025. In this document, the Haitian Government, as well as the private sector, donors, and civil society have agreed on the importance of providing increasing medium and long term support to the agriculture sector of Haiti to address the structural problems and weaknesses surrounding public institutions supporting its development. This vision is to build-up and strengthen an agricultural sector that is modern, founded in the efficiency and effectiveness

of family agriculture and agribusinesses, competitive in local and international markets, ensuring food security of the population, environmentally sustainable and able of producing surpluses for value added processing.

- 1.8 This vision has been articulated by the Government and the Development Partners into the National Agriculture Investment Plan (NAIP) covering the period 2011-2016. The NAIP not only derives its objectives and strategy from the existing Agriculture Policy Document, but also from the Post-Disaster Needs Assessment and the overall Government and International response to the post-earthquake reconstruction effort. The NAIP is a long-term vision based on key approaches in the definition of future investments that include: (i) a regional approach to promote a balanced sustainable development between departments; (ii) a watershed approach, taking into consideration the interaction between downstream and upstream; and (iii) a value chain approach and close partnership between private sector, public sector and farmers organization in order to ensure coherent investments in the sector. These investment needs totaled US\$790 million, out of which US\$365 million support selected rural supply chains, including technology transfer, rural credit and logistics for perishable crops. In this regard, the NAIP clearly establishes as a priority the necessary definition and further implementation of a renewed strategy in terms of fostering technology adoption among small farmers. The proposed program contributes to partially finance these investment needs.
- 1.9 **Project conceptualization** Program intervention is supported on empirical evidence in and outside the LAC region on agricultural technology adoption that suggests that, from an economic perspective, there are several reasons that help justify public investment in technical assistance and technology transfer services to farmers. These justifications are mainly related to the existence of barriers that impede an optimal adoption of improved technologies, thus affecting economic development. In the context of the proposed project, at the farmer level, the following barriers have been identified: (i) restrictions to access credit; (ii) problems in accessing information and/or asymmetric information; and (iii) risk aversion. Restrictions in access to credit result in liquidity constraints that limit small farmers' capability to purchase improved technologies, designed to increase productivity and farmers' income. Lack of information and/or asymmetric information limit the producers' ability to adopt improved and economically profitable technologies, because there are producers who lack the knowledge regarding adequate use of improved technologies and/or producers don't have enough information regarding the costs and/or the whereabouts of private providers of the improved technologies. Finally, risk aversion limits technology adoption, because producers prefer the certainty of what is known to them than the introduction of new technologies, which although may seem more productive, are unknown to them. The strategy of intervention of the proposed program seeks to reduce barriers to access improved technologies of Haitian farmers, through: (i) reducing liquidity constraints, providing non-reimbursable financial support to small eligible farmers to help them cover the costs of improved technologies promoted by the program; (ii) reducing information problems that limit access to service providers, by creating a link between small

- producers and private providers of the improved technologies; and (iii) reducing the uncertainty and risk perception associated to the adoption of new technologies, by establishing a level of financial support that will help internalize risks associated to price and yield variability.
- 1.10 From an operational standpoint, the proposed program has been designed based on the operation 2187/GR-HA and RESEPAG I as well as on lessons learned through similar projects implemented by the Bank in the region, mainly loans 1397/OC-DR and 2443/OC-DR in the Dominican Republic; 2055/BL-NI in Nicaragua; and 1800/OC-PR in Paraguay. Three main lessons learned through those operations that have been included in the design of this program are: (i) to have a periodic external in-field audit of the direct payments system; (ii) to have a monitoring officer in the Executing Agency in charge of a permanent quality and price control of the goods and services purchased through this system; and (iii) to maximize transparency and communication upon the direct payment system (access criteria, beneficiaries), involving local authorities in the process. Effectiveness of “smart subsidies” on productivity was demonstrated by [a study conducted by the Office of Evaluation and Oversight \(OVE\) on 1397/OC-DR operation](#). This program will also use the software that will be elaborated to manage the voucher payments system financed by the operation 2187/GR-HA.
 - 1.11 The “smart subsidy” scheme implemented by the program will incorporate the following guiding principles: (i) promote improved technologies as part of a wider strategy that includes complementary services and inputs; (ii) favor market-based solutions that do not undermine incentives for private investment; (iii) promote competition and cost reductions by reducing barriers to entry to technology providers; (iv) recognize that effective demand from farmers is critical for long-run sustainability; (v) insist on economic efficiency as the basis for technology promotion efforts; (vi) empower farmers to make the decisions about productivity enhancement farm management practices; (vii) pursue regional integration in order to benefit from the economies of market size; and (viii) implement a monitoring and evaluation system that ensures that targeting criteria are being followed and quality of data collection and management is done rigorously to allow impact evaluation. Finally, in order to enhance and provide sustainability to the subsidy scheme, the Program will make necessary investments or improve the country’s improved private seed production, distribution, and certification.
 - 1.12 The proposed program will focus at first on the North and Northeast departments that encompass 4,000 km² and 115,000 farmers, where agriculture is diversified and has a high potential for intensification. This geographic focus is expected to ensure more effectiveness and facilitate later replication among farmers in other areas of the country. The region presents several comparative advantages for agricultural development: diversified ecosystems which allow a huge range of crops, fertile soils, easy access to the Dominican market for agricultural products, high potential for competitive exports to Bahamas and Turks and Caicos Islands and increasing urban local demand for food.

- 1.13 The proposed program is a component of a wider project implemented by the MARNDR and financed with resources from the Global Agriculture and Food Security Program (GAFSP) that aims to improve food production and food security in Haitian rural households of the northern region. This project also includes a World Bank operation (RESEPAG II project) that will provide support to public and private extension services (training, demonstration) for all producers, on the same technology packages and in the same area, but without direct financial support, so that the two programs will be really complementary. Such a synergy will also be promoted through a sole executing agency and will clearly facilitate the achievement of the expected outcomes of this program.
- 1.14 **Consistency with the Bank’s Country Strategy.** The program is fully aligned with the Country Strategy Update approved in July 2010 (GN-2465-2), in which agriculture is one of the pillars of economic growth for the reconstruction of the country. It is also aligned with the Country Strategy in preparation (2011-2015) to be approved in the third quarter of 2011 where agriculture continues to be a strategic sector.
- 1.15 **Consistency with objective of IDB-9.** The proposed program will contribute with the following lending program priority targets established in the Report on the Ninth General Increase of Resources of the Bank (IDB-9): (i) poverty reduction and social equity, as the program supports production of small farmers, an automatic-qualified sector; (ii) climate change initiatives and environmental sustainability, as the program will promote the adoption of agricultural technologies and practices aiming at reducing land degradation, encourage a resilient agriculture and allowing farmers adaptation to future changes in weather and precipitation patterns. The program will contribute to the annual growth rate of LAC’s agriculture GDP, a regional development goal of the IDB-9.

B. Objective, components and costs

- 1.16 **Project goal, expected outcomes and key results indicators.** The goal of the program is to contribute to a sustainable improvement of small farmers' agriculture income and food security in the selected region. Table I-1 summarizes the expected outcomes, indicators, baselines, targets and means of verification. A total of 30,000 farmers will be given access to improved agricultural services, contributing to the expected output under the “Protecting the environment, responding to climate change, promoting renewal energy and enhancing food security” strategic priority of the Bank for 2012-2015 established by the IDB-9. A monitoring system will be in place in order to verify the beneficiaries’ characteristics from an economic and gender perspective.

Table I-1: Summary of Results Matrix (see detailed matrix in Annex IV)				
Project objective: to sustainably increase farmers income and food security				
Project outcomes	Indicators	Baseline 2011	Target 2016	Verification
Final outcome: increase agricultural productivity	Average gross margin of selected crops among beneficiaries compared with non-beneficiaries	see Table II-3	+30% (minimum)	Specific survey (external evaluation)

Intermediate outcome: Farmers have adopted improved and sustainable technologies	Number of farmers that have adopted the selected technologies	0	30 000	Specific survey (external evaluation)
SNS has the capacity to control seed quality	% of the registered seed providers controlled at least once a year	0%	100%	P.E.U.

- 1.17 In order to achieve the aforementioned objective, the program is comprised of the following two components. **Component 1: Promoting improved and sustainable agriculture technology adoption.** Includes non-reimbursable financial support payments for eligible farmers who agree to adopt technological packages from a menu set by the executing agency. These support payments will consist of a fixed sum for each eligible technology to a cumulative maximum equivalent to 0.5 ha per producer during the life of the program. The amounts will be determined before the beneficiaries make their technology selections. For each technology, the value of the program-financed support will represent 80% of the cost of inputs, labor, transport, and technical assistance for its implementation. The amount will be agreed annually during the annual program review by the Bank and the executing agency. This component will include engaging technical service providers to assist with the dissemination, technology verification and monitoring associated with the producer supports.
- 1.18 Eligible farmers for the technology support payments will meet the following criteria: (i) cultivate at least one plot of land in the selected areas; (ii) the plot of land where they plan to implement the improved technology is not in a situation of conflictive use; and (iii) are not receiving similar supports from another government or donor financed program. The technologies eligible for direct support payments will comply with guiding principles in ¶1.11 and will meet the following criteria: (i) contribution to the objective of the program; (ii) profitability, with an internal rate of return equal to or greater than 12%; (iii) applicability to agro-ecological conditions, neutrality or positive environmental impact; (iv) ease to check adoption by the beneficiary; (v) official quality certification of goods and services associated with each technology.
- 1.19 **Component 2: Strengthening the National Seeds Service.** This component includes assistance to the MARNDR to build capacity for control and regulation of seeds. It includes: (i) an external evaluation of the role of public administration in input delivery validated by MARNDR's main partners (donors, farmer organizations, NGO's); (ii) a functional laboratory for seeds quality control (equipments installed, procedures approved); and (iii) a policy document for the seed sector shared with the main stakeholders. The program will finance technical assistance (international and national expertise in seed control, laboratory management and seed supply policy and strategy); professional training; reconstruction of the laboratory for seed quality control (destroyed during the 2010 earthquake), including greenhouse, stores and drying slab; laboratory equipment including cold storage, dehumidifier, an electric power plant, scales and sprouting trays.

II. FINANCING STRUCTURE AND MAIN RISKS

A. Financing Instruments

- 2.1 The total cost of the program is estimated in US\$40 million, which will be financed by an IDB Grant Facility for US\$15 million and by non reimbursable resources from the Global Agriculture and Food Security Program (GAFSP) for an amount of \$25 million³. Table II-1 summarizes total cost by investment category and financial source.

Investments categories	IDB (US\$ M.)	GAFSP (US\$ M.)	Estimated cost (US\$ M.)
I. Direct costs	10	25.0	35.0
<i>Component I: direct payments</i>	8	25.0	33.0
<i>Component II: seed supply regulation</i>	2	0	2.0
II. Administrative costs	1.65	0	1.65
III. Monitoring and evaluation	1	0	1
IV. Audit	0.75	0	0.75
V. Contingencies	1.6	0	1.6
TOTAL	15.0	25.0	40.0

- 2.2 The proposed program has been design for an execution period of 60 months, with the following schedule of disbursements:

US \$	Total	Year 1	Year 2	Year 3	Year 4	Year 5
IDB	15.0	3.2	1.5	1.95	2.4	5.9
GAFSP	25.0	0.5	2.3	4.65	9.3	8.3
TOTAL	40.0	3.7	3.8	6.6	11.7	14.2
% GAFSP	62.5%	9%	10%	16%	29%	35%

- 2.3 **Technical viability.** The Ministry of Agriculture has selected a set of initial technology packages, based on their technical, environmental and socio-economic characteristics: improves pastures for the lowlands and hillsides, creole garden regeneration for the hillsides and highlands, and annual crop intensification (land preparation, improved seeds and pesticides for disease control) for flat lands. It is expected that main impact of their adoption on agricultural productivity will take place at the end of the program (year 4 and 5).
- 2.4 The technologies that will be promoted by the program have been tested in previous agricultural projects funded by the Bank or other institutions such as USAID, EMBRAPA from Brazil, World Bank and FAO. The analysis of these projects shows that the Creole garden regeneration technology, focused on an agro-forestry production system, will primarily improve coffee and cocoa

³ In June 2010, the GAFSP approved a US\$35 million grant for Haiti to support its NAIP. A total of US\$10 million is currently financing a *Strengthening Agriculture Public Services Program*, supervised by the World Bank. The GAFSP resources will be subject to its Steering Committee prior approval.

regeneration in highlands; the land preparation, improved seeds and pesticides for disease control technology will primarily increase the Intensive Rice cropping System (IRS), integrated pest control in sweet potato cropping, maize and beans intercropping; and improved pasture technology will primarily be demanded in the lowlands. Each technology that will be promoted through this program already exists and has been tested and adapted to the local conditions so that its effectiveness is proved. The menu of technologies will be reviewed annually between the Executing Agency and the Bank. In this regard, innovations from the applied research component of the Rural Supply Chain Development Program (2393/GR-HA) will enhance the potential technologies of such menu.

2.5 **Economical viability.** The overall economical viability of the program was assessed using a simulation model of the direct effects of the direct support payments to 30,000 farmers for an average amount of US\$900 per farmer (see Electronic References). The incremental benefits estimates from the situation without project include an increase in yields and farm incomes. The incremental costs include investments under the Program, as well as the recurrent costs due to the application of the technology. The program assumes conservatively that it will not have spillover effects, due to the absence of credit (see par. 1.3). Considering a 15-year horizon, the economic evaluation showed an internal rate of return between 18% and 64% depending on assumptions about the current trend of technology adoption and subsidy rate (see Table II-3). These rates demonstrate the economic viability of the program.

Table II-3: Estimated economical return for initial technology packages (US\$/ha)						
		Investment costs	Direct supports	Expected income w/out project	Expected income w/project	IRR
Creole garden	Coffee	2 353	1 882	589	918	39%
	Cocoa	2 241	1 793	400	819	37%
	Citrus	2 813	2 250	1 425	2 568	91%
	Cashew nut	1 450	1 160	363	1 093	75%
Intensified annual crops	Pineapple	2 962	2 370	198	838	28%
	Rice	822	657	217	578	70%
	Corn	543	434	49	333	61%
	Yam	3 813	3 050	319	4 281	112%
	Cassava	701	560	165	600	86%
	Plantain	1 575	1 260	633	4 425	281%
	Carrot	1 630	1 304	693	2 133	131%
	Onion	2 728	2 182	379	1 273	47%
	Tomato	1 384	1 107	285	2 616	189%
	Chili	1 650	1 320	715	1 650	100%
Beet	1 630	1 304	605	2 045	125%	
Improved pasture		691	553	310	609	88%

B. Environmental and Social Safeguard Risks

- 2.6 The Program will promote the use of enhanced agricultural technologies, most of them environmental friendly. However, the Environmental and Social Assessment of the program identified some potential impacts such as: (i) mismanagement of pesticides and other chemical inputs included in the technological packages promoted by the Program; (ii) introduction of new varieties of existing species or new species without the required control measures; (iii) indirect promotion of agro-industrial processing (such as coffee wash, cocoa fermentation) which may generate pollutant wastes; (iv) promotion of annual crops in areas vulnerable to erosion (with pronounced slopes) through the voucher scheme, taking into consideration also climate change and risks to natural disaster aspects; and (v) occupational health and safety risks. Other risks are the weak institutional capacity of MARNDR to follow-up on environmental and social mitigation measures and mechanisms to ensure an equitable distribution of access to extension services, including measures to target female headed households.
- 2.7 According to the guidelines of the Bank's Environmental Safeguard Policies (OP-703 and OP-704), the program has been classified as "B". A socio-environmental assessment of the Program has been prepared, including: (i) consultations and dissemination; (ii) analysis of the legal and institutional framework; (iii) identification of impacts or potential environmental risks; (iv) development of the required measures to avoid, minimize and / or mitigate the identified impacts; (v) elaboration of an environmental management plan for the new operation; (vi) identification of institutional responsibilities and financial resources, the timing and budget related to the implementation of the proposed measures, and (vii) the development of a monitoring mechanism with a clear definition of the indicators of environmental impacts throughout the project. The proposed measures include the preparation of a Pest Management Plan by the executing agency during the first year of implementation of the program. **Preparation of a PMP will be condition precedent to disbursement of support payments envisaged in component 1.**

C. Fiduciary Risk

- 2.8 The fiduciary management of the program will be the responsibility of the executing agency (EA), through an existing Project Executing Unit (PEU) created and funded by World Bank for the implementation of the RESEPAG program. The Bank has conducted a review of the financial management and internal and external control systems used by the PEU using the SECI evaluation methodology. Based on the results, the overall PEU risk rating is considered to be high, particularly in areas of (i) accounting, financial reporting and monitoring due to the fact that the installation of the computerized accounting system is still under process and an incipient budget execution monitoring systems; and (ii) institutional capacity, due to the lack of previous experience in managing projects financed by the Bank and the fact that the PEU is currently understaffed. To mitigate those risks, the PEU will be reinforced by hiring one accountant and one administrative assistant and one procurement assistant. Training on Bank's financial management and procurement procedures will be provided to project

- management team personnel on a continuous basis. The EA is expected to complete the process of implementing the accounting software by October 2011.
- 2.9 Financial management systems used by the PEU will be applied for the financial management of the project. Project financial management will be executed according to OP-273. An annual operation plan (POA), an annual procurement plan and the related 12-month financial plan will be required from the PEU. Modified cash basis accounting method will be used for reporting purposes. The PEU will open two bank accounts (in gourdes and in US dollars) at the Central Bank to manage the grant resources and a list of authorized signatures is to be provided to the Bank. The PEU will maintain proper financial management systems and will prepare and submit to the Bank a twelve-month detailed financial plan, indicating cash flow needs for the execution of project's activities stemming from agreed upon implementation plan and procurement plan. This plan will serve as the basis for advance of funds disbursements. Disbursements will be equivalent to the amount needed to cover three months worth of cash flow needs for implementation of project activities at the request of PEU.
- 2.10 An institutional capacity assessment was performed to determine if the PEU's procurement systems were acceptable to the Bank. The assessment methodology used was the "Guide for Detailed Assessment of the Executing Agency's Institutional Capacity" approved by VPC/PDP. The assessment identifies the procurement cycle administration and more specifically the areas of procurement planning and contract management as areas that need to be strengthened in order to have a successful project execution phase. The assessment concluded that the risk involved in the procurement to carry out this project is medium-high and will be mitigated with ex-ante supervision by the Bank, training on Bank's procurement procedures and policies provided to project management team on a continuous basis and support from the Bank's procurement specialist to the executing agency as needed. The PEU already have hired a procurement specialist and will be reinforced by hiring one procurement assistant. Project's procurement will follow the Bank procurement policies: "Policies for the Procurement of Goods and Works financed by the Inter-American Development Bank (GN-2349-9), and "Policies for the Selection and Contracting of Consultants financed by the Inter-American Development Bank" (GN-2350-9), as well as the "[Disposiciones especiales sobre adquisiciones para atender la emergencia causada por el terremoto del 12 de enero de 2010 en la República de Haiti](#)" (OP-387-1).
- 2.11 External control will continue to be performed by independent public accountant firms acceptable to the Bank. The PEU will be responsible for contracting an external auditor eligible to the Bank to perform the program audit as follows: (i) an annual financial audit of the program to be submitted within 120 days of the end of fiscal year; (ii) a semi-annual review of the procurement and disbursement processes to be submitted within 60 days of each period ending on May 31 and November 30; (iii) a semi-annual assurance report with a conclusion on the functioning of the subsidies to small farmers payment mechanism to be submitted within 60 days of each period ending on May 31 and November 30; and (iv) one final financial audit of the Program to be submitted within 120 days after the date

of last disbursement. Bank fiduciary staff will conduct inspection visits every four months to review the accounting systems and procedures. For 2011 two inspection visits will be planned and executed.

D. Other Key Issues and Risks

2.12 **Execution risks and mitigation.** Due to the market structure of agriculture inputs and services market in Haiti, there is a high risk of market price distortions after introducing the subsidies for the selected technologies, which may result on subsidized inputs and/or services being sold a higher prices than before the project (i.e., transfer of the subsidies to the inputs and services providers). To mitigate this risk, and based on lessons learned from similar projects in other countries, the PEU will hire a full time monitoring officer responsible for cost and quality control of the supply of inputs and services by the providers. The PEU will also organize a permanent professional roundtable with input and services suppliers, farmers' representatives and ministry of agriculture representatives; this roundtable will meet quarterly, realize a detailed follow-up of the implementation of the voucher scheme and monitor the evolution of international and local market prices of selected inputs in order to alert on any distortion in price transmission. The recruitment of the cost and quality officer and evidence for the creation of the roundtable are **prior conditions for the disbursement of the resources allocated to direct payments.**

2.13 Another risk is linked to the reintroduction of low-impact distribution of subsidized seeds and fertilizers by NGOS and projects funded and executed outside the NAIP. Reintroduction of this supply-driven mechanism may hamper the economic and spillover effects of the smart subsidies in the program among farmers, as it will divert their attention from technological packages that aim to improve yields in a sustainable manner. To mitigate this risk, MARNDR will coordinate with all operators in place, through the existing departmental roundtable to ensure that they will avoid any distribution of farm inputs that is not consistent with the proposed smart subsidy mechanism (MARNDR can legally cancel the administrative authorization of functioning for any NGO that not is in line with the national policy). The risk is also mitigated by the support to this proposed mechanism by the World Bank and USAID.

III. IMPLEMENTATION AND MANAGEMENT PLAN

A. Summary of implementation arrangements

3.1 **Beneficiary and executing agency.** The beneficiary will be the Republic of Haiti. The executing agency will be the Ministry of Agriculture, Natural Resources and Rural Development, through the Project Executing Unit (PEU) created for the implementation of the RESEPAG program. This unit is located under the Directorate for Administration and Financial Affairs (DAAF) of the Ministry. It is comprised of a senior leader (public employee), that will be the project coordinator for HA-L1059, and a fiduciary team that includes a financial specialist, a procurement specialist and an administrative assistant (contractuals). The executing agency will put in place a steering committee for the project,

- composed at least by the General Director of the Ministry of Agriculture, a representative of Ministry of Economy and Finance, and a representative of APB (Professional Banking Association). The steering committee approves the operative manual, the annual plan of operation and the bi-annual reports of PEU.
- 3.2 The executing agency will be responsible for the overall administration, supervision and general evaluation of the program. The existing PEU will be staffed with an accountant, a second administrative assistant and a procurement assistant, exclusively dedicated to project management. **The recruitment of this fiduciary staff is a condition prior to first disbursement.** The PEU coordinator will be seconded by a senior technical advisor recruited with the program resources. Component 2 of the program will be technically managed by the chief of the Service National Semencier (SNS). Component 1 will be technically managed by the Director of Training and Rural Entrepreneurship Promotion (DFPEA) which is part of the Directorate of the Ministry of Agriculture. He will be seconded by two technical specialist respectively located in the northern and northeastern Departmental Directorates of agriculture. Finally, a monitoring and evaluation specialist will be recruited in order to support the Directorate for Monitoring and Evaluation (DSE) in charge of permanently monitor the program (see 3.10). All component leaders will work under the coordination of the DAAF/PEU leader.
- 3.3 The PEU will contract: (i) technical assistance to support SNS for Component 2; (ii) a consulting firm in charge of the management of the voucher payments system; (iii) a financial institution in charge of delivering the payments to the service providers against vouchers; (iv) a consultancy firm in charge of the evaluation of the program; and (v) an accounting firm in charge of the audit of the Program (see below).
- 3.4 **Program's operations manual.** Program administration will be governed by an operations manual. The manual, a version of which already exists that governs 2187/GR-HA (to be updated in order to fit the needs of this program) will set out in detail the procedures to be followed by the executing agency and the other institutions associated with the program execution with regard to programming activities, fiduciary management, procurement and contracting, audits, and program monitoring, including environmental and social monitoring as described in ESMR. For the financial supports envisaged in Component 1, the manual will spell out the operating and financial mechanism, eligibility criteria for both beneficiaries and service providers, the maximum amounts per individual producer and per technology, and the selection and verification of technologies. Any substantial modification to the manual must be agreed on with the Bank. **The adoption of the operations manual of the program is a condition prior to first disbursement.**
- B. Operating and financial mechanism of Component 1**
- 3.5 Prior to the beginning of each growing season, the executing agency, through the specific technical assistance hired to implement the voucher payments system, will disseminate the objectives, scope and eligibility for direct support,

- emphasizing the eligibility criteria, its operating and financial mechanism, technologies available as well as levels of financial support for each technology. Dissemination of this information will be under the responsibility of the PEU, which will coordinate with departmental and municipal authorities in order to reach a maximum transparency and coverage. For each growing season, if the total number of eligible farmers for a determined technology is higher than the planned maximum number of direct payments to be paid, final beneficiaries will be selected through a “first come, first served” mechanism.
- 3.6 For each technology, the executing agency will count with a specification sheet, which will include at least the description of the technology, the expected impact on productivity, the set of goods and services involved by the technology and its expected implementation cost. This sheet will be periodically controlled and updated by the monitoring officer dedicated to cost and quality control.
- 3.7 A financial institution will assist the executing agency to make the support payments once the beneficiaries have been identified. The financial institution will be subject to the pertinent rules of financial supervision and regulation and will have experience in rural services, adequate geographic coverage, and computerized information systems in their branches for client service. The responsibilities of the participating financial institution are described in the operations manual. Their participation will be formally established in each case in a contract with the executing agency, as indicated in the manual. **Signature of a contract between the executing agency and the financial institutions participating in Component 1 will be condition precedent to disbursement of support payments envisaged in the component.**
- 3.8 Through an external audit firm, the executing agency will make random checks to ensure that the technologies financed by the Program have been effectively adopted by the beneficiaries, using a procedure specified by the executing agency and agreed with the Bank. After the verification process, verification reports will be prepared containing information that will be introduced in the program’s monitoring system. The reports will: (i) certify that the technology has been introduced on the beneficiary’s land and meets program technical specifications; (ii) certify the identity of the technology provider and ensure that the provider is listed in the program register of providers; (iii) validate the receipt of technologies by the beneficiaries; and (iv) immediately inform the program about any noncompliance found during the verification process. The verification reports will be attached to documentation in support of expenditures for Component 1 to be presented by the executing agency to the Bank.

C. Monitoring and Evaluation

- 3.9 The project M&E system is under the responsibility of the Directorate of Monitoring and Evaluation (DSE) of the E A, in accordance with its legal mandate. The MARNDR will recruit with the project resources a full-time senior manager from the DSE to work as M&E Coordinator for the project. In order to collect the required data, the M&E Coordinator will directly liaise with the Departmental Directorate for Agriculture in the Project’s implementation region.

- 3.10 The project's M&E coordinator will identify the mechanisms of data collection, the source of data and the responsibilities for collection and reporting as well as the reporting schedule as specified in Annex 4 for the project indicators. The M&E coordinator will follow key output and outcome indicators by component detailed in the results matrix to report on implementation progress. These indicators will be an integral part of the biannual progress report to be sent to IDB. These indicators are consistent with the outcomes indicators for GAFSP Component 5 (capacity building) and 1(raise agricultural productivity) as shown in the detailed results matrix in Annex 2. As explained in 3.4 above, the M&E coordinator will also be responsible for the permanent price and quality control of the inputs and services purchased through the voucher system. S/he also will be responsible for the monitoring of the Environmental and Social Mitigation Plan.
- 3.11 An in-depth external evaluation of the program will be implemented under DSE leadership. The methodology that will be used to evaluate the project's impact is a double difference or difference in difference. This is a quasi-experimental methodology that allows us to control for some type of biases that take place due to observable differences between control and beneficiary groups and unobservable differences that are constant overtime. This implies that this methodology is more powerful than a simple before-after or with-without comparison. The treatment group will include all the agricultural producers who participate in the program. Specifically, because the program is implemented to benefit the northern region of Haiti, these farmers will be located in this particular area. The program is open-window which means that benefits will be provided in a first come-first served basis which already poses a challenge to the identification of a valid control group. The strategy to identify a control group that is comparable enough to the treatment group will be done by using the Agricultural Census Data that was collected 2007-2008. This data set will allow us to identify farmers who are comparable to the beneficiary farmers but who are located in the central region where the program will not be executed. This will allow us to create a roaster of comparable farmers based on ex-ante characteristics using propensity score matching.
- 3.12 This methodology entails at least two waves of data collection, a baseline and a follow up survey administered to both beneficiaries and control group for the previous agricultural year. The baseline data would be collected in 2012 to a sample of producers in the beneficiary area (northern region) and a sample of comparable producers in the non beneficiary area (central region).
- 3.13 A mid-term technical evaluation of the project will be launched after the disbursement by the Bank of at least 35% of the resources of the program. The final evaluation will be launched when 90% of the resources have been disbursed. The required resources for this evaluation are included in the program's budget, although it is possible that the DIME unit from World Bank (Development Impact Evaluation Initiative) includes this program in its worldwide impact evaluations of GAFSP funded programs. The mid-term evaluation as well as the progress reports will include an evaluation of environmental and social impacts and risks and the implantation of the mitigation measures.

Development Effectiveness Matrix			
Summary			
I. Strategic Alignment			
1. IDB Strategic Development Objectives	Aligned		
Lending Program	The intervention contributes to the lending program for small and vulnerable countries, for poverty reduction and equity enhancement, as well as, to support climate change initiatives, renewable energy and environmental sustainability.		
Regional Development Goals			
Bank Output Contribution (as defined in Results Framework of IDB-9)	The intervention contributes to Bank outputs: (1) Afro-descendant individuals (all, indigenous, afro-descendant) receiving targeted anti-poverty programs, (2) Farmers given access to improved agricultural services and investments (providing information on the percentage of beneficiaries that are women and men).		
2. Country Strategy Development Objectives	Aligned		
Country Strategy Results Matrix	GN-2465	The intervention contributes to increase technical assistance and improve access to rural finance.	
Country Program Results Matrix	GN-2617	The intervention is included in the 2011 Country Program Document.	
Relevance of this project to country development challenges (If not aligned to country strategy or country program)			
II. Development Outcomes - Evaluability	Highly Evaluable	Weight	Maximum Score
	9.2		10
3. Evidence-based Assessment & Solution	8.0	25%	10
4. Ex ante Economic Analysis	10.0	25%	10
5. Monitoring and Evaluation	8.6	25%	10
6. Risks & Mitigation Monitoring Matrix	10.0	25%	10
Overall risks rate = magnitude of risks*likelihood	Medium		
Environmental & social risk classification	B		
III. IDB's Role - Additionality			
The project relies on the use of country systems (VPC/PDP criteria)			
The project uses another country system different from the ones above for implementing the program			
The IDB's involvement promotes improvements of the intended beneficiaries and/or public sector entity in the following dimensions:			
Gender Equality			
Labor			
Environment	yes	Environmentally friendly technologies are promoted.	
Additional (to project preparation) technical assistance was provided to the public sector entity prior to approval to increase the likelihood of success of the project			
The ex-post impact evaluation of the project will produce evidence to close knowledge gaps in the sector that were identified in the project document and/or in the evaluation plan.	yes	The impact evaluation is expected to provide empirical evidence of the effect of technological adoption on agricultural productivity, agricultural income and food security.	

The intervention is aligned with three dimensions of the lending program (i) the IDB's lending objective "Lending to small and vulnerable countries", (ii) "Lending for poverty reduction and equity enhancement" and (iii) "Lending to support climate change initiatives, renewable energy and environmental sustainability". The intervention contributes to the Bank output contribution to regional development goals 2012-2015 "Afro-descendant Individuals (all, indigenous, afro-descendant) receiving targeted anti-poverty programs" and "Farmers given access to improved agricultural services and investments". The project is aligned with the country strategy objective "Farmers adopting improved and sustainable agriculture technologies in selected value chain" and it is also included in the country program document.

The intervention identifies the technological problems that hinder agricultural productivity in Haiti. To respond to these limitations, an intervention model is defined based on partially public-funded private extension services ("smart subsidies"). This approach has been previously adopted and evaluations have shown evidence of effectiveness in promoting technology adoption, though the evidence on impact in productivity is still rather inconclusive. In this direction, more detailed information should have been provided on the timing of the expected gains in productivity. Previous studies have also shown that this particular intervention model may discriminate farmers with severe financial and information constraints (i.e. most likely the poorest). This risk could have been more clearly acknowledged and addressed and more information should have been provided about the characteristics of the potential beneficiaries in terms of their (i) financial constraints; (ii) capabilities and access to information. In doing this, it should also be clarified what kind of producers is most likely to be "discriminated" by the project's intervention model. In spite of the fact that, according to the information provided, beneficiaries are homogeneous in terms of access to credit, a more detailed analysis of their characteristics would have given a better idea of the expected impact.

The results matrix presents in detail all the impact, outcome and product indicators related to the objectives and components of the program. The indicators presented in the matrix are SMART. The program includes an economic analysis of the overall program and of each of its components. The project also includes a complete monitoring and evaluation plan (M&E). The impact evaluation of the program is designed in a rigorous way. Nevertheless it must be mentioned that a first best approach would have been a randomization of the benefits. It would have allowed not only a more transparent and just allocation of the resources, but also a much more rigorous impact evaluation.

The risks currently identified in the risk matrix are reasonable and they include mitigation measure and related metric to track their implementation.

RESULTS MATRIX

Objective	To contribute to sustainably improve small farmers' agriculture income and food security in the northern region of Haiti		
Impact/Indicators	Baseline	Target (2016)	Comments and Assumptions
<p><i>Increase Farmer's Median Agricultural Net Income</i></p> <p>Indicator: Income=(Crop Value + Livestock Value)-Input Costs</p>	\$ 190 ¹	+ 25%	<p><i>Observation:</i> Baseline data will be updated with ad-hoc surveys. Surveys will be administered based on comparability using 2008 Census Data</p>
<p><i>Improve Farmer's Food Security Levels</i></p> <p>Indicator: Proportion of target population (30,000 families) below the minimum level of dietary consumption</p>	29.2% ² (malnutrition rate)	22%	

¹ / ECVH survey, 2001 in Verner, Dorte, 2005; Making Poor Haitians Count; tables 4.1 (north department) and 4.4; World Bank.

² / EMMUS survey, 2000; malnutrition rate for the north department.

Component I: Extension of direct payment system								
Component 1	Base (2010)	Year 1	Year 2	Year 3	Year 4	Year 5	Target	Comments and Assumptions
Outcomes								
<i>Increase agricultural productivity</i>								
Indicator:								
<ul style="list-style-type: none"> Percentage difference in agricultural gross margins between beneficiaries (who adopted the technology) and control group Average gross margins of selected crops for beneficiary farmers. 	<p>0%</p> <p>Baseline (US\$/Ha, 2010)*</p> <p>Coffee: 1 716 Cocoa: 1 463 Citrus: 438 Cashew nut: 1 500 Pineapple: 1 250 Rice: 980 Corn: 372 Yam: 2 250 Plantain: 700 Carrot: 1 175 Onion: 2 188 Tomato: 2 500 Chili: 1 238 Beet: 1 875 Pastures: 2 100</p>			<p>>30%</p> <p>Target (US\$/Ha, 2016)</p> <p>Coffee: 2450 Cocoa: 2 359 Citrus: 1 313 Cashew nut: 3 000 Pineapple: 3 800 Rice: 1 400 Corn: 875 Yam: 3 813 Plantain: 1 300 Carrot: 6 000 Onion: 3 763 Tomato: 4 000 Chili: 4 000 Beet: 3 300 Pastures : 3 675</p>				<p><i>Observations:</i></p> <p>Due to homogeneity among producers in Haiti a 0% difference between beneficiaries and non beneficiaries is assumed. Besides, control group will be identified using agricultural census to assure comparability. This will be confirmed with the administration of a baseline survey.</p> <p>Target estimates are based on results obtained from the economic analysis.</p> <p>Baseline data will be confirmed with ad-hoc surveys. Surveys will be administered based on comparability using 2008 Census Data.</p> <p>Gross Margin = gross income – input costs</p> <p>* Baseline source: Projet de transfert de technologie aux petits producteurs (HA-L1059) ; évaluation économique ; Budry Bayard, 2011.</p>

Component I: Extension of direct payment system								
Component 1	Base (2010)	Year 1	Year 2	Year 3	Year 4	Year 5	Target	Comments and Assumptions
Intermediate Outcomes								
<i>Beneficiary farmers have adopted improved and sustainable technologies</i> Indicator: -Number of beneficiary farmers that have adopted new selected technologies -Number of hectares of beneficiaries where new technologies are adopted	0 0						18,000 9,000	<i>Observation:</i> Baseline data will be confirmed with ad-hoc surveys. Surveys will be administered based on comparability using 2008 Census Data. This outcome will be measured because farmers who receive the voucher might not be able to adopt and implement the technology. Adoption itself is an important outcome from the project and is worth to be measured.
Outputs								
<i>Farmers who received vouchers for the technologies being promoted</i> Indicator: Number of farmers who received a voucher Number of hectares covered with the technologies	0 0	200 100	2800 1400	5000 2500	10000 5000	12000 6000	30000 15000	

Component II: Technical Support to SNS (National Seed Service)								
Component 2	Base (2010)	Year 1	Year 2	Year 3	Year 4	Year 5	Target	Comments and Assumptions
Outcomes								
<p><i>Contribute to institutional building and capacity development creating SNS capacity to control seed quality.</i></p> <p>Indicator: Percentage of registered seed providers who have been inspected by SNS at least once a year and following the approved protocol.</p>	0	0	0	100	100	100	100	<p><i>Observation:</i> The inspection will be done following a protocol developed by SNS based on international standards.</p>
Outputs								
<p><i>1- Evaluation of the role of public sector in the seeds and input market completed</i></p> <p>Indicator: Document shared with stakeholders</p>	0	1	0	0	0		1	<p><i>Observations:</i> Stakeholders include seeds providers, farmers' organizations, donors, public administration, etc. The activities to share the evaluation include workshops, dissemination of the document, website publications.</p>
<p><i>2 - Laboratory for seeds quality control established and functioning</i></p> <p>Indicator: Number of seed samples analyzed for quality control by the laboratory (annual)</p>	0	0	10	36	60	120	120	

Component II: Technical Support to SNS (National Seed Service)								
Component 2	Base (2010)	Year 1	Year 2	Year 3	Year 4	Year 5	Target	Comments and Assumptions
<p>3 - Training to develop human capital for SNS</p> <p>Indicator:</p> <p>Number of persons trained with a masters degree financed by the program</p>	0	0	0	0	2	2	4	
<p>4 - Procedures for seeds quality control are implemented</p> <p>Indicator:</p> <p>Manual of seed quality control procedures approved by the Ministry of Agriculture (MARNDR)</p>	0	0	1	0	0	0	1	
<p>5 - National policy and strategy for the seed sector approved</p> <p>Indicator:</p> <p>Document approved by MARNDR and shared with stakeholders</p>	0	0	1	0	0	1	2	

FIDUCIARY ARRANGEMENTS

COUNTRY: CCB/CHA

PROJECT N° HA-L059 **NAME:** Technology transfers to small farmers

EXECUTING AGENCY: MARNDR- RESEPAG

PREPARED BY: Marise E. Salnave / Ariel Rodriguez

I. Executive Summary

The latest available evaluation of the Haiti's PFM systems is the "*Public Expenditure Management and Financial Accountability Review*", published on January 2008. Weaknesses in the Haitian Government's financial management systems, aggravated by the aftermath of the 12th of January 2010 events, constitute a limitation to the efficiency, effectiveness and transparency needed for the management of public resources, including foreign contributions. To mitigate these weaknesses the Bank will continue in the foreseeable future to: a) rely on special project execution units for all projects and b) to conduct close operational supervision to Executing Agencies. External control will be performed for all Bank operations by independent audit firms acceptable to the Bank. Audits will be performed in accordance with Bank's Guidelines for Financial Reports and External Audits.

The objective of the program is to sustainably increase small farmer's agriculture incomes and food security in the northern region of Haiti. The expected result of the project is an increase in the number of farmers that have adopted improved and sustainable technologies in selected value chains in the north. The Program will be executed by the Ministry of Agriculture, Natural Resources and Rural Development (MARNDR) through a Project Executing Unit inside the Directorate for Administrative and Financial Affairs (DAF). This unit was implemented by the World Bank for the execution of its program "renforcement des services publics agricoles (RESEPAG)". This unit will rely on a) the support of a service provider for the external evaluation programmed in component I, b) a service provider for the implementation of the information and monitoring of system for component II and c) the MARNDR departmental directorates for the design and monitoring of component II. The subsidies to small farmers financed under component II will be distributed by a financial institution, such as a commercial bank, which will be hired through a competitive bidding process. The assessment of project execution unit (PEU) financial management systems showed the need for improvement and an understaffing of the PEU. The project execution will be of 5 years. Its total cost is estimated at US \$40 million, and will be financed by a US \$15 million grant from IDB and a US \$25 million grant from the GAFSP facility of the World Bank.

Executing Agency's Fiduciary Context

The Program will be executed by the Ministry of Agriculture, Natural Resources and Rural Development (MARNDR) through a Project Executing Unit (PEU) inside the Directorate for Administrative and Financial Affairs (DAF). Currently the PEU is comprised by a Coordinator, a Financial Management Specialist and a Procurement Specialist. An administrative assistant with accounting background was recently recruited and will support the Financial Management Specialist.

The PEU does not have an accounting software and accounting records are prepared currently on a manual basis with the use of excel spreadsheets for reporting purposes. The firm Turbo system was recently recruited by the MARNDR for the implementation of an accounting system at the Ministry's (central level) which includes its implementation for several project executing units including RESEPAG. The installation of the software including the training of users and the service contract will be financed by the World Bank over

a period of 3 years. At the date of our evaluation, only one advance of funds for the amount of US \$500 thousand was disbursed for the RESEPAG project financed by the World Bank. Two accounts were opened at the Central Bank. Bank account reconciliations are prepared on a monthly basis. Financial reports are prepared on a quarterly basis and include a report on the use of funds (cash receipts and disbursements made) and a statement of cumulative expenses. The PEU prepared POA and the procurement plan as a basis for Budget preparation. Procedures for the monitoring of budget execution are not in place. The firm Turnier was recently hired by the PEU to perform the audit of the RESEPAG project. This firm has the possibility of setting up technical support agreements on a case by case basis with international firm Ernst and Young. Considering the nature and complexity of this project, it is considered acceptable to retain the Firm Turnier as the external auditor of the new financing, provided that a technical support agreement between the local firm and E&Y is signed and made available to the Bank for no objection.

Fiduciary risk evaluation and mitigation actions

On March 3rd, 2011, the Bank conducted a review of the financial management and internal and external control systems used by PEU. Based on the results, the overall risk rating of the PEU is high in the following areas:

Risks identified	Mitigating measures
<ul style="list-style-type: none"> Incomplete and / or accounting and financial reporting and monitoring due to lack of computerized accounting system and budget execution monitoring systems. 	<ul style="list-style-type: none"> The ministry is currently in the process of implementing an accounting software which will be used the PEU. According to the TOR of the contract, the implementation and training of users should be completed with 30 days from the signing of the contract. As such the accounting software should be in place by the approval of the program. As a condition prior for its first disbursement the PEU will have to formulate and formally adopt an operational regulations manual Bank Fiduciary staff will conduct inspection visits every 4 months to review the accounting and reporting systems and procedures. External auditors eligible to the Bank will be hired to perform a) the financial audit of project, b) to conduct independent verifications of the proper functioning of the subsidies payment mechanism to farmers, and c) ex-post independent verification of disbursement' requests.
<ul style="list-style-type: none"> Sluggish execution of project's activities due to understaffing of the PEU and lack of previous experience of projects financed by IDB. 	<ul style="list-style-type: none"> Reinforce the PEU by hiring one accountant, one administrative assistant and one procurement assistant Training on Bank's financial management and procurement procedures provided to project management team personnel on a continuous basis.

The implementation of the above mitigation actions should reduce fiduciary risk to medium.

II. Aspects to be considered in the Special Conditions of Contract

In order to move forward the contract negotiations by the project team and mainly by LEG, herein are those Fiduciary Arrangements that must be considered in the special conditions:

- Special Conditions Precedent to First Disbursement (if required):
- Formulation and adoption of an operational regulations manual to be provided to IDB
- Audit special requirements: Annual project audited financial statements for fiscal year end including semi-annual independent verification of internal controls and disbursement requests supporting documentation will be required and performed by an external auditor. The semi-annual independent verification report will be submitted to the IDB within 60 days of each semester's end. For accounting and audit purposes, the fiscal year of the Ministry will be respected. An independent bi-annual verification of the proper use of the subsidies payment mechanism to the farmers will also be requested and to be submitted within 60 days following the end of each semester's end.

III. Fiduciary Arrangements for Procurement Execution

The Procurement Fiduciary Arrangements establish the conditions applicable to all procurement execution activities in the project. The components of this operation will be executed by the MARNDR – PEU RESEPAG following Bank procurement policies: “Policies for the Procurement of Goods and Works financed by the Inter-American Development Bank (GN-2349-9) and “Policies for the Selection and Contracting of Consultants financed by the Inter-American Development Bank” (GN-2350-9), and the “Disposiciones especiales sobre adquisiciones para atender la emergencia causada por el terremoto del 12 de enero de 2010 en la Republica de Haiti” (OP-387-1).

Procurement of Works, Goods and Non-Consulting Services

The contracts for Works, Goods and Services Other Than Consulting Services¹ resulting from the project and subject to International Competitive Bidding (ICB) will be carried out using the Standard Bidding Documents (SBDs) issued by the Bank. Bids subject to National Competitive Bidding (NCB) will be carried out using the National Bidding Documents agreed on with the Bank.

Procurement of Consulting Services

Selection and Contracting of Consultants: Consulting services contracts resulting from the project are listed in the IPP and are executed using the Standard Request for Proposals (RFP) issued by the Bank or agreed on with the Bank (or satisfactory to the Bank if none have been agreed on to date).

- **Selection of Consulting Firms**: *This will be carried out for the project using the RFP issued by the Bank;*
- **Short List of Consulting Firms**:² *This list may consist entirely (100 percent) of national firms³ for contracts worth less than one \$ USD 100,000.*

¹ In accordance with the Inter-American Development Bank (IDB) Procurement Policies, non consulting services are treated similarly to goods.

² In accordance with Section V of Policies for the Selection and Contracting of Consulting Services, the selection of individual consultants does not require the use of a Short List nor does it use the RFP.

³ This does not prevent the participation of foreign firms.

- **Selection of Individual Consultants:** The selection will be made taking into account their qualifications to perform the work based on a comparison of at least three (3) candidates;

Recurrent costs: In case of any recurrent operative costs are included in the program, these will be duly documented by the MARNDR – PEU RESEPAG to the satisfaction of the Bank in order to be accepted, that is the contracting or procurement process involved observed the fundamental principles of competition, efficiency and economy.

National Preferences: The supply of goods originating in the Borrower’s country will not be given any price preference.

Advanced Procurement/Retroactive Financing: There are not advanced procurements and associated contracts planned.

1. Thresholds (miles US\$)

The thresholds currently approved for the Republic of Haiti are the following:

Works			Goods ⁴			Consulting Services	
International Competitive Bidding	National Competitive Bidding	Shopping	International Competitive Bidding	National Competitive Bidding	Shopping	International Advertising	100% National Short List
=>1,000	100 -1,000	<100	=>100	25 - 100	<25	>200	<100

However, the thresholds applied to the procurements of this operation follow the ones established in the Appendix 1 of the “Disposiciones especiales sobre adquisiciones para atender la emergencia causada por el terremoto del 12 de enero de 2010 en la Republica de Haiti” (OP-387-1).

International Publicity (Works)	Shopping or NCB (Works)	International Publicity (Goods)	Shopping or NCB (Goods)	International Advertising (Consulting Services)	Short List 100% National (Consulting Services)
=> 1.000.000	<1.000.000	=> 250.000	<250.000	>200.000	<100.000

⁴ Include services other than consulting services.

2. Initial Procurement Plan (IPP) [\(Complete Procurement Plan: IDBDOCS 36237327\)](#)

Description of Projected Procurement		Estimated Amount US\$ 000	Procurement Method	Prequalifies? Yes No
W O R K S	National Seed Service building repairing	425	Shopping	No
	MARNDR's departmental offices repairing	150	Shopping	
G O D S	Vehicles (6)	350	Shopping	No
	Furnitures	46	Shopping	No
	IT equipments (DDA and UEP)	109	Shopping	No
	Energy supply equipments (DDA and UEP)	86	Shopping	No
	Communication equipments (DDA)	20	Shopping	No
	Specific equipment for seed quality control	150	ICB	No
F I R M S	Technical assistance for direct payment	3 000	QCBS	No
	Technical assistance for component 1 (seeds)	100	QCBS	No
	External evaluation	730	QCBS	No
	Audit	750	QCBS	No
	Financial institution services (3% of direct payments)	900	QCBS	No
	IT Services	60	QCBS	No
I N D I V	Long term consultant for component 2 / UEP	300	QCNI or QCII	No
	Long term consultants for component 2 / DDA north	150	QCNI or QCII	No
	Long term consultants for comp. 2/DDA northeast	150	QCNI or QCII	No
	Long term consultant for monitoring	240	QCNI or QCII	No
	Long term consultant for procurement (junior)	150	QCNI or QCII	No
	Long term consultant for administration (junior)	150	QCNI or QCII	No
	Long term consultant for accounting (junior)	150	QCNI or QCII	No

3. Procurement Supervision

All procurement supervision will be ex ante for the MARNDR – PEU RESEPAG in accordance with Appendix 1 of IDB Procurement Policies GN-2349-9 and GN-2350-9. Inspections visits will be carried out along with the financial supervision visits on a yearly basis and the number of visits will be adjusted as required during the execution phase of the project.

Special Stipulations

- a. **Measures to reduce corruption probabilities:** Use of IDB standard bidding documents and IDB approved standard documents in Haiti with their contract models that include clauses to ensure that the risk of fraud and corruption activities in Bank-financed is mitigated and sanctioned.

b. **Files and Records**

The MARNDR – PEU RESEPAG will be required to keep files and track records of all procurement financed by the Bank in their office in accordance to what will be agreed in the Project's Operational Rules and in order to be available for supervision visits by the fiduciary team and audit firms.

Financial Management

1. Programming and Budget

Country's budget system is not forward looking; there are many off-budget operations. Budget execution is affected mainly by the lack of cash-flow planning and monitoring and the weak capacity of the line ministries. The budget execution process is also lacking a manual; formal coordination mechanisms to link aid policies, project and programs to Country's priorities and budget needs to be established. A large part of externally financed expenditures is executed outside the budget, with donors using their own implementation arrangements.

Programming and budget planning, execution and monitoring at the project level will rely on IDB's project financial management formats and procedures. An annual operation plan, an annual procurement plan and the related 12-month financial plan will be required from the PEU on an annual basis.

2. Accounting and Information Systems

One of the major weaknesses of the PFM systems in Haiti is that the country lacks a sound accounting system, including clear standards and a related automated system. The link between the different automated financial management software used by the MEF to report on revenues is not automatic and cannot generate clear and comprehensive reports of the country's financial situation. In practice, it has never been possible to produce a General Account Balance. Country's accounting system will not be used for project accounting and reporting.

Financial management systems used by the Project Executing Unit will be applied for the financial management of the project. Modified cash basis accounting method will be used for reporting purposes. The PEU will use the exchange rate valid at the day of IDB disbursement value dates to record all expenses made in local currency.

3. Disbursements and Funds Flows *(including any use of the country's treasury system)*

The use of a Single Treasury Account is not implemented in Haiti. There are many off-budget accounts. A considerable percentage of public spending is channeled through "comptes courants" (currents accounts) and "own resources" (funds collected by the different ministries and government agencies). There is no real cash flow planning and monitoring.

Project financial management will be executed according to OP-273. The PEU will open two bank accounts (in gourdes and in US dollars) at the Central Bank for the management of grant resources and listing of authorized signatures are to be provided to the bank. The PEU will maintain proper financial systems and will prepare monthly a twelve-month detailed financial plan indicating cash flow needs for the execution of project's activities stemming from agreed upon implementation plan and procurement plan. The twelve-month financial plan will serve as the basis for advance of funds disbursements. Disbursement will be equivalent to the amount needed to cover 3 months worth of cash flow needs for implementation of project activities at the request of MARNDR.

4. Internal Control

The Ministry does not have an internal audit unit. The PEU will establish proper segregation of duties, approval authority levels for contracts signature, commitment of funds, reception of goods and services and payment to suppliers and beneficiaries. Periodic controls of proper application of internal controls will be performed by DAF personnel.

5. External Control and Reporting

External Controls is performed by the *Cour Supérieure des Comptes et du Contentieux Administratif* (CSCCA), the Supreme Audit Institution. CSCCA does not apply IAS and has no manuals of procedures and code of ethics. External control will continue to be performed for all Bank financed projects by independent public accountant firms acceptable to the Bank. Audits will be performed in accordance with Bank's Guidelines for Financial Reports and External Audits.

THE PEU will be responsible for contracting an external auditor eligible to the Bank to perform the audit of the program as follows: (i) an annual financial audit of the program to be submitted within 120 days of the end of fiscal year; (ii) a semi-annual review of the procurement and disbursement processes to be submitted within 60 days of each quarter; a semi-annual assurance report on the functioning of the subsidies to small farmers mechanism to be submitted within 60 days of each period ending May 31st and November 30th and (iv) one final financial audit of the program to be submitted within 120 days after the date of last disbursement.

6. Financial Supervision Plan

Bank Fiduciary staff will conduct inspection visits every 4 months to review the accounting systems and procedures. For 2011 two inspection visits will be planned.

7. Execution Mechanism

The Program will be executed by the Ministry of Agriculture, Natural Resources and Rural Development (MARNDR) through a Project Executing Unit (PEU) inside the Directorate for Administrative and Financial Affairs (DAF). The PEU will send to IDB advance funds disbursement request based on quarterly financial plans. THE PEU will provide justification of at least 80% of advance prior to receiving subsequent advances.

Payment of subsidies will be made via a financial institution which will be hired through a competitive bidding process. Payments by the financial institution will be subject to the farmer meeting set technical requirements to be validated by the Departmental Directorate of Agriculture (DDA). The latter will inform the PEU that all technical requirements have been met following which the PEU will send payment authorization to the financial institution.

SAFEGUARD POLICY FILTER REPORT

PROJECT DETAILS	IDB Sector	AGRICULTURE AND RURAL DEVELOPMENT-APRICULTURAL PRODUCTIVITY
	Type of Operation	Other Lending or Financing Instrument (enter details in final report)
	Additional Operation Details	
	Investment Checklist	Agribusiness Crops
	Team Leader	Damais, Gilles Georges (GILLESD@iadb.org)
	Project Title	Technology transfer to small farmers program
	Project Number	HA-L1059
	Safeguard Screening Assessor(s)	Damais, Gilles Georges (GILLESD@iadb.org)
	Assessment Date	2010-12-02
	Additional Comments	

SAFEGUARD POLICY FILTER RESULTS	Type of Operation	Loan Operation	
	Safeguard Policy Items Identified (Yes)	Activities to be financed in the project area are located within a geographical area or sector exposed to natural hazards (Type 1 Disaster Risk Scenario).	(B.01) Disaster Risk Management Policy– OP-704
		The operation is in compliance with environmental laws and regulations of the country where the operation is being implemented (including national obligations established under ratified Multilateral Environmental Agreements).	(B.02)
		The operation (including associated facilities) will be screened and classified according to their potential environmental impacts.	(B.03)
		The Bank will monitor the executing agency/borrower's compliance with all safeguard requirements stipulated in the loan agreement and project operating or credit regulations.	(B.07)

		The operation has the potential to impact the environment and human health and safety from the production, procurement, use, and disposal of hazardous material, including organic and inorganic toxic substances, pesticides and Persistent Organic Pollutants (POPs).	(B.10)
		Any part of the investment or component(s) is being co-financed.	(B.15)
		Suitable safeguard provisions for procurement of goods and services in Bank financed projects may be incorporated into project-specific loan agreements, operating regulations and bidding documents, as appropriate, to ensure environmentally responsible procurement.	(B.17)
	Potential Safeguard Policy Items(?)	No potential issues identified	
	Recommended Action:	Operation has triggered 1 or more Policy Directives; please refer to appropriate Directive(s). Complete Project Classification Tool. Submit Safeguard Policy Filter Report, PP (or equivalent) and Safeguard Screening Form to ESR. The project triggered the Disaster Risk Management policy (OP-704). A more limited and specific Disaster Risk Assessment (DRA) may be required (see Directive A-2 of the DRM Policy OP-704). Please contact a Natural Disaster Specialist in VPS/ESG or INE/RND for guidance.	
	Additional Comments:		

ASSESSOR DETAILS	Name of person who completed screening:	Damais, Gilles Georges (GILLESD@iadb.org)
	Title:	
	Date:	2010-12-02

SAFEGUARD SCREENING FORM

PROJECT DETAILS	IDB Sector	AGRICULTURE AND RURAL DEVELOPMENT-APRICULTURAL PRODUCTIVITY
	Type of Operation	Other Lending or Financing Instrument (enter details in final report)
	Additional Operation Details	
	Country	HAITI
	Project Status	
	Investment Checklist	Agribusiness Crops
	Team Leader	Damais, Gilles Georges (GILLESD@iadb.org)
	Project Title	Technology transfer to small farmers program
	Project Number	HA-L1059
	Safeguard Screening Assessor(s)	Damais, Gilles Georges (GILLESD@iadb.org)
	Assessment Date	2010-12-02
	Additional Comments	

PROJECT CLASSIFICATION SUMMARY	Project Category: C	Override Rating:	Override Justification:
	Conditions/ Recommendations		Comments:
			<ul style="list-style-type: none"> • No environmental assessment studies or consultations are required for Category "C" operations. • Some Category "C" operations may require specific safeguard or monitoring requirements (Policy Directive B.3).Where relevant, these operations will establish safeguard, or monitoring requirements to address environmental and other risks (social, disaster, cultural, health and safety etc.). • The Project Team must send the PP (or equivalent) containing the Environmental and Social Strategy (the requirements for an ESS are described in the Environment Policy Guideline: Directive B.3) as well as the Safeguard Policy Filter and Safeguard Screening Form Reports.

SUMMARY OF IMPACTS/RISKS AND POTENTIAL SOLUTIONS	Identified Impacts/Risks	Potential Solutions
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DISASTER SUMMARY	Details	Actions
	<p>The Project should include the necessary measures to reduce disaster risk to acceptable levels as determined by the Bank on the basis of generally accepted standards and practices. Alternative prevention and mitigation measures that decrease vulnerability must be analyzed and included in project design and implementation as applicable. These measures should include safety and contingency planning to protect human health and economic assets. Expert opinion and adherence to international standards should be sought, where reasonably necessary.</p>	<p>A more limited and specific Disaster Risk Assessment (DRA) may be required (see Directive A-2 of the DRM Policy OP-704). Please contact a Natural Disaster Specialist in VPS/ESG or INE/RND for guidance.</p>

ASSESSOR DETAILS	Name of person who completed screening:	Damais, Gilles Georges (GILLES@iadb.org)
	Title:	
	Date:	2010-12-02