

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

DOMINICAN REPUBLIC

AGRIFOOD HEALTH AND SAFETY PROGRAM

(DR-L1048)

LOAN PROPOSAL

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ELECTRONIC LINKS	
REQUIRED	
1.	Annual work plan http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=36222833
2.	Monitoring and evaluation arrangements http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=36226106
3.	Environmental and Social Management Report (ESMR) http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=36222828
OPTIONAL	
1.	Institutional capacity analysis http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=36222532
2.	Economic evaluation http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=36222890
3.	Program operating manual http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=36223733
4.	OIE-PVS Evaluation Report of Veterinary Services in the Dominican Republic http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=36222533
5.	Component 1. Agrifood safety–technical report http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=36237486
6.	Component 2. Animal health–technical report http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=36237488
7.	Component 3. Plant health–technical report http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=36237489
8.	Performance, Vision and Strategy (PVS) for food safety and plant health services http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=36251385
9.	Environmental and safeguards classification http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=36235906

ABBREVIATIONS

AFS	Audited financial statements
CNMSF	Comité Nacional para la Aplicación de Medidas Sanitarias y Fitosanitarias [National Committee for Enforcement of Sanitary and Phytosanitary Measures]
CSF	Classical swine fever
DIA	Departamento de Inocuidad Agroalimentaria [Agrifood Safety Department]
DSA	Dirección de Sanidad Animal [Animal Health Division]
DSV	Departamento de Sanidad Vegetal [Plant Health Department]
ESMP	Environmental and Social Management Plan
GAP	Good agricultural practices
GCI-9	Ninth General Increase in the Resources of the Bank
GLP	Good livestock practices
GMP	Good manufacturing practices
ICM	Integrated crop management
IICA	Inter-American Institute for Cooperation on Agriculture
IRR	Internal rate of return
ISO	International Organization for Standardization
LAVECEN	Laboratorio Veterinario Central [Central Veterinary Laboratory]
NPV	Net present value
OIE	World Organisation for Animal Health
PATCA	Program of Support for the Transition to Competitive Agriculture
PEO	Project Execution Office
PRODESA	Agricultural Health Development Program
PVS	Performance, Vision and Strategy (IICA)
PVS	Performance of Veterinary Services (OIE)
SPS	Sanitary and Phytosanitary Measures
USAID	United States Agency for International Development

PROJECT SUMMARY

DOMINICAN REPUBLIC AGRIFOOD HEALTH AND SAFETY PROGRAM (DR-L1048)

Financial Terms and Conditions				
Borrower: Dominican Republic			Amortization period:	25 years
Executing agency: Ministry of Agriculture, through its Project Execution Office (PEO)			Grace period:	5 years
			Disbursement period:	5 years
Source	Amount (US\$)	%	Interest rate:	LIBOR-based
IDB (Ordinary Capital)	10,000,000	90.9	Inspection and supervision fee:	*
Local	1,000,000	9.1	Credit fee:	*
Total	11,000,000	100.0	Currency:	U.S. dollars from the Single Currency Facility of the Bank's Ordinary Capital
Project at a Glance				
Project objective/description: The program will help boost productivity in the agricultural sector and improve access for the country's agricultural products to domestic and international markets, by strengthening the government's capacity to provide integrated animal and plant health and agrifood safety services. The program has four components: (i) strengthening agrifood safety services; (ii) strengthening animal health services; (iii) strengthening plant health services; and (iv) institutional management.				
Special contractual clauses: Entry into force of the final version of the Program Operating Manual will be a condition precedent to the first disbursement under the program (paragraph 3.1)				
Exceptions to Bank policies: None				
Project qualifies as: SEQ [X] PTI [X] Sector [X] Geographic [] Headcount []				
Procurement: All procurement under the program will be done in accordance with Bank policies and procedures, as defined in documents GN-2349-9 and GN-2350-9 (paragraph 3.3).				

* 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 provisions 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, and rationale

- 1.1 **The agricultural sector and its exports.** The countryside and the agricultural sector are of strategic importance for the social and economic development of the Dominican Republic. A third of the country's people live in rural areas, more than half (56%) of them below the poverty line. Agriculture generates around 8% of gross domestic product (GDP) and accounts for 15% of national employment. Agricultural activity is based primarily on small producers: more than 80% of the country's farmers and livestock producers work properties of 100 *tareas* (6.3 ha) or less, occupying slightly over a quarter of the national land area.
- 1.2 Agricultural exports represent 30% of the country's total exports by value. The last decade has seen greater diversification of exports: traditional products (primarily sugarcane, coffee, cacao and tobacco) have declined or held steady while agroindustrial and nontraditional agricultural exports (fruits and vegetables) have been growing steadily, increasing their share of the value of the sector's total exports from 57.1% to 72.8%. The primary export market for the sector remains the United States (61.2%), followed by Europe (19.7%) and the Caribbean (12.9%). While the export-oriented agricultural sector is still small compared with that of Central American countries, it has demonstrated flexibility and the capacity to adapt to international demand.¹ The progressive opening of markets as a result of trade treaties to which the Dominican Republic is party—e.g. CAFTA-DR (Dominican Republic-Central America-United States Free Trade Agreement and the Economic Partnership Agreement between the countries of CARIFORUM and the European Union—are likely to have a significant, positive impact on the agriculture sector (Economic Commission for Latin America and the Caribbean, 2009). At the same time, domestic consumption, driven in part by tourism, is boosting agricultural development and increasing demand for safe, high-quality products. According to surveys conducted between 2007 and 2009,² around 80% of agricultural products consumed by the hotel industry were of domestic origin, with a value of some US\$318 million/year (exceeding the total value of nontraditional agricultural exports).
- 1.3 If export-led growth in the agriculture sector—which averaged 4% over the period 2000-2009—is to be sustained, access to existing international markets will have to be maintained and new markets will have to be opened. At the same time, the expansion of tourism and the growing awareness of domestic consumers will both exert greater demand for safer products. In this context, the enforcement of Sanitary and Phytosanitary Measures (SPS) is seen as a key instrument for securing trade in

¹ Restricciones, oportunidades y recomendaciones de política para el crecimiento del sector agropecuario en la República Dominicana [Restrictions, opportunities and policy recommendations for expanding the agricultural sector in the Dominican Republic], E. Zagarra, 2009.

² Survey of Agricultural and Agroindustrial Product Consumption by Hotels in the National Hotels and Restaurants Association and the Dominican Agribusiness Board.

animal and plant products and, hence, sustaining the sector on its long-term growth path.

- 1.4 The Dominican Republic has many comparative and competitive advantages in sanitary and phytosanitary matters that can mean commercial opportunities for its agricultural products. On livestock front, the country is free of foot-and-mouth disease, which means that it can export beef to all countries of the Americas and the Caribbean. With an additional effort it could eradicate classical swine fever (CSF), which would facilitate the export of pork and prepared meats to the Americas and Europe. In order for animal products to enter those markets, however, the country will have to demonstrate to its trading partners that its production, health and safety systems are capable of guaranteeing a level of protection equivalent to those of importing countries. In particular, the country must demonstrate: (i) the reliability of government inspection and control systems (inspection and quarantine of animals upon entering the country, inspection and supervision of facilities and activities for the slaughtering of animals and the processing of meat and animal byproducts, and the recording of veterinary drugs and animal feed); (ii) effectiveness and reliability of the analytical methods used in laboratories; and (iii) enforcement of good livestock practices and good manufacturing practices.
- 1.5 With respect to plant products, the country is free of the Mediterranean fruit fly (*Ceratitis capitata*), which enables it to export a broad range of chilies and cucurbits (gourds) to the United States without quarantine restrictions. Nevertheless, a variety of pests (lepidopterans, aphids, and white flies) reduce crop yields and lead to intensive use of pesticides³ on the part of small producers. This generates a high level of pesticide residues in products, which in turn constitutes one of the main barriers to entry of fresh produce (fruits and vegetables) to the markets of the United States and Europe, as well as a factor of contamination for local consumption. Of Dominican products rejected by the United States from 2007 to 2010, 82% were refused entry because they contained pesticides that were in themselves not authorized or were present in amounts exceeding authorized limits; in the European Union, this accounted for 91% of rejections from 2003 to 2010.⁴ The sanitary agencies of the country's trading partners have stressed the need to improve: (i) the effectiveness of systems for registering and inspecting pesticides and their distributors; (ii) the analytical capacity of laboratories for detecting maximum limits of chemical residues, and their accreditation in accordance with international standards; and (iii) observance of good agricultural and manufacturing practices throughout the supply chain, as fundamental measures for maintaining open markets.
- 1.6 The presence of pests and diseases not only affects trade but can also compromise public health and reduce crop and livestock productivity (which is among the lowest in the region, according to Zegarra, 2009). This is the case, for example,

³ Pesticide Evaluation Report and Safe Use Action Plan, USAID, October 2009.

⁴ INTradeBID. Available at <http://www.iadb.org/topics/trade/int/tools/sps/Default.aspx>

with bovine brucellosis and tuberculosis, which can be transmitted to humans through milk products and can cause losses of between 15% and 25% in milk and beef output from infected herds. With respect to crops, Asian plant pests present in the country are reported to reduce yields by up to 25% if uncontrolled. Although there are no detailed studies measuring these impacts, activities under the program in support of good agricultural practices will produce valuable information on some crops, which will be taken as the basis for more in-depth studies in the future.

- 1.7 **Institutionalizing the approach to health and safety.** Responsibility for preventing and controlling animal and plant pests and diseases and the quality of foodstuffs and inputs for their production lies with the Ministry of Agriculture. These functions are assigned to the Animal Health Division (DSA), which is under the Livestock Directorate and the Departments of Plant Health (DSP) and Agrifood Safety (DIA), within the Vice Ministry of Agricultural Extension and Training Services. The Department of Food and Beverage Risk Control within the Ministry of Public Health supervises food and beverage processing facilities. In 2003 the National Committee for the Enforcement of Sanitary and Phytosanitary Measures (CNMSF) was created, bringing together public and private agencies responsible for food health and safety. This mechanism is facilitating administration of the SPS Agreement and the work of defining the country's positions in international forums. Nevertheless, the agencies responsible for implementing health and safety actions still face important challenges in terms of improving service delivery.
- 1.8 The sound management of plant and animal health institutions is a key consideration. The World Organisation for Animal Health (OIE) has declared that these institutions are global public goods and that their good governance is crucial, recognizing that failure by a single country can place not only that country and region, but potentially the whole world in jeopardy. To deal with present and future challenges and opportunities, health and safety institutions need human and financial resources on a scale that will allow them to enforce an appropriate legal framework in the area of health and safety; give them the technical capacity to act independently and objectively, basing all their decisions on scientific principles; back their actions with solid public-private partnerships; and be able to comply with standards and to implement measures required for access to local, regional and international markets. Based on these characteristics, OIE and the Inter-American Institute for Cooperation on Agriculture (IICA) have developed tools (both known in English as "PVS"⁵) to analyze the performance of plant and animal health and food safety services. The Ministry of Agriculture requested an evaluation of its veterinary services in 2009 by the OIE, using the Performance of Veterinary Services tool, and in 2011 IICA performed an assessment of plant health and food

⁵ The two tools are similar in that their objective is to determine the effectiveness of sanitary services, identify shortcomings in relation to international standards, establish priorities and undertake strategic initiatives with respect to 40 critical competencies grouped under the four aspects shown in Table I-1. Each competence is assessed at a level from 1 to 5 (5 being the highest). These values may also be expressed as a percentage (0-100).

safety services using the Performance, Vision, and Strategy tool. The main recommendations from those evaluations are presented in the following table, and will be addressed by the present program:

Table I-1 Critical competencies, levels and recommendations

Critical competency	Level (0-100)	Main recommendations addressed by the program
Human, physical and financial resources	FS: 46 AH: 42 PH: 50	<u>Continuing education</u> : to establish continuing training programs and prepare procedural manuals for assessing planned activities. <u>Physical resources</u> : to provide equipment and implement a communications plan and information systems.
Technical authority and competency	FS: 24 AH: 48 PH: 56	<u>Quarantine</u> : to improve facilities at quarantine stations, including the incinerator, and to equip quarantine services with proper communication and IT facilities. <u>Laboratories</u> : to upgrade the laboratories, enhance their levels of biosecurity and their accreditation to ISO standards, improve inter-laboratory coordination and sanitary control programs. <u>Risk analysis</u> : to strengthen the risk analysis units, with adequate capacity and resources. <u>Veterinary medicines and biologicals</u> : to expand the area of control over animal feed and veterinary drugs. <u>Detection of residues</u> : to establish a program for chemical and biological residues. <u>Disease control and eradication programs</u> : to foster coordination between the public and private sectors.
Interaction with stakeholders	FS: 41 AH: 50 PH: 66	<u>Consultation with stakeholders</u> : to establish a framework for consultation with legal backing. <u>Producer participation in joint programs</u> : to establish a legal framework for integrating producers into sanitary programs.
Access to markets	FS: 40 AH: 47 PH: 65	<u>International harmonization</u> : to update and harmonize standards and audit their enforcement. <u>Traceability</u> : to establish a system for identifying compliant animals and farms, including movements of animals. <u>Zoning</u> : to conduct studies for implementing disease-free zones.

FS = Food safety
AH = Animal health
PH = Plant health

- 1.9 **Bank experience in the sector.** The US\$5.3 million program to provide Support for the Transition to Competitive Agriculture (PATCA, loan 1397/OC-DR), completed in 2010 and executed by the Secretariat of State for Agriculture (now the Ministry of Agriculture) launched the modernization of agrifood health and safety services in the country. The final evaluation of the program listed among its main achievements the creation of the Agrifood Safety Department (DIA), the preparation of a food surveillance and hygiene control plan, the upgrading and equipping of the Central Veterinary Laboratory (LAVECEN) to conduct analyses

of residues and pesticide formulas, and the creation and strengthening of pest and disease risk units. That [evaluation](#) showed that the operation had helped to reduce the blockage of plant-source exports because of the presence of pesticides, with the number of containers rejected in the United States falling from more than 400 in 2007 to 29 in 2009.

- 1.10 **Country strategy.** The proposed program is consistent with the priorities established in the Bank's strategy with the country for the period 2010-2013 (document GN-2581), under the strategic objective of improving agricultural productivity. The program will help achieve the expected outcomes of that strategy, specifically by reducing the rejection of exports of fresh produce due to agricultural health issues, the indicators for which will be the percentage rejected because of pesticide residues (containers rejected as a percentage of total containers exported).
- 1.11 **Consistency with the Ninth General Increase in the Resources of the Bank.** The program fits with the 2012-2015 lending targets of: (i) supporting the development of small and vulnerable countries; (ii) reducing poverty and enhancing equity, through investments to boost the productivity of small agricultural producers⁶ by controlling pests and diseases that affect their output and incomes; (iii) supporting sustainable environmental and climate change initiatives, through strengthening the management of persistent organic pollutants (paragraphs 1.17 and 1.19); and (iv) fostering regional integration, as modern animal and plant health and food safety systems will facilitate agricultural trade and integration with trading partners and will promote regional cooperation through their characteristic as regional public goods (paragraph 1.8).
- 1.12 **Design of the program.** The proposed program represents a continuation of the strategy for modernizing the country's plant and animal health and agrifood safety services that was initiated with loan 1397/OC-DR. It will help reduce health risks in the country and improve opportunities for agricultural exports by winning greater international recognition for its animal and plant health system in the context of enforcement of the SPS Agreement. The four components of the program are aligned with the recommendations from the OIE and IICA diagnostic studies of veterinary, phytosanitary and agrifood safety services (paragraph 1.8), with a view to improving the performance indicators produced from application of their respective PVS tools.
- 1.13 The program's design is based on lessons learned during execution and evaluation of loan 1397/OC-DR and from similar Bank operations in other countries, and it also takes into account the outcomes of studies evaluating the impact of some of

⁶ The program will provide indirect benefits to all the country's farmers (approximately 250,000) of whom more than 80% are small-scale producers, through the delivery of more effective health and safety services. It will be of direct benefit to 6,500 cattle producers, 45,000 hog producers, and 2,500 fruit and vegetable growers.

those operations.⁷ Those studies offer empirical evidence of the effectiveness of interventions of this kind in improving various development indicators, including those relating to institutional impacts and to productivity. The following aspects are noteworthy in this regard: (i) the program will focus on making continuous improvements in services in line with the recommendations of the international agencies of reference; (ii) it will strengthen capacities in the technical areas of inspection and quarantine, registration of agricultural inputs, and laboratories; (iii) it will contribute to better coordination of services through integrated strategic and operational planning, a shared information system, and the review of standards and procedures with common bases for all services; and (iv) it will foster better interaction with producers through the preparation of programs for disease control for implementation jointly with the productive sector concerned, and activities that will involve participants throughout the supply chain and the public in general.

- 1.14 The program will generate synergies⁸ with activities that the Bank has been supporting in the area of trade through the Project for Strengthening Foreign Trade Management (loan 1511/OC-DR). The program's activities in support of the sector's capacity to comply with foreign markets' sanitary requirements will complement the actions planned under loan 1511/OC-DR, the objective of which is to increase and diversify the country's exports. Loan 1511/OC-DR, for US\$5 million, will wrap up in 2011.
- 1.15 In recent years the Dominican government has received support from international agencies for analyzing the institutional aspects of health and safety. This has included the preparation of preliminary draft legislation for creating autonomous agencies to administer health and safety. The proposed program, by strengthening the technical areas that are an indispensable element for objective decision-making and supporting efforts to integrate the institutional management of services delivered by the Ministry of Agriculture, will provide the tools that will constitute the necessary basis for whatever institutional structure the country decides to adopt as consistent with the principles of efficiency and quality that a modern agricultural health system must incorporate.

B. Objective, components, and costs

- 1.16 **Objectives.** The program will help boost productivity in the agricultural sector and improve access for the country's agricultural products to domestic and international

⁷ OVE evaluations: (i) Evaluation of the Plant and Animal Health Development Program (PRODESA) in Peru; (ii) Evaluation of the Plant and Animal Health Component of the Agricultural Services Modernization Program in Ecuador (loan 892/OC-EC); (iii) Ex Post Evaluation of Plant and Animal Health and Food Safety Projects; (iv) overall results of the impact evaluation of PRODESA relating to mangle in camelids, biological control and fruit flies (GRADE, 2008), and (v) analysis of the institutional impacts of PRODESA in Peru (GRADE, 2008).

⁸ The results of the components dealing with the administration of trade agreements (component 2) and export promotion (component 3) of loan 1511/OC-DR, which include training events and dissemination and studies, have been used in the design of the present program. Coordination among the institutions involved in both programs will be maintained in the context of the CNMSF.

markets, by strengthening the government's capacity to provide integrated animal and plant health and agrifood safety services. The program has four components:

- 1.17 **Component 1. Strengthening agrifood safety services.** This component seeks to reduce the presence of residues and contaminants in food of agricultural origin, as measured by the percentage of foodstuffs marketed with values in excess of the permitted limits. It includes: (i) preparation of a joint strategy of Good Agricultural Practices (GAP) and Integrated Crop Management (ICM) and preparation and implementation of a pilot program for 2,500 farmers and 200 livestock producers in Good Livestock Practices (GLP); (ii) preparation and implementation of a strategy for training, dissemination and awareness raising in GAP, GLP and Good Manufacturing Practices (GMP) for all stakeholders, from producers to consumers; (iii) design, implementation and public availability of computerized registries of agencies for certifying producers and packers of nontraditional plant products with respect to GAP, GLP and GMP as well as Hazard Analysis and Critical Control Points; (iv) design and implementation of a program for surveillance of residues of chemical and biological contaminants for fruits, vegetables and meat in the domestic market; and (v) ISO 9000 certification of the quality control division of LAVECEN and validation of four methods of food analysis by the national authority, with ISO 17025 accreditation of testing.
- 1.18 **Component 2. Strengthening animal health services.** This component seeks to improve the animal health situation in the country as measured by the number of diseases of which the country is free and the number that have been eradicated. It includes: (i) preparation of an animal quarantine strategy integrating the quarantine station, posts at seaport, airport and land border crossings, remodeling and equipping of the Animal Quarantine Station and design and implementation of an information system integrating quarantine data and risk analysis; (ii) preparation of a risk analysis for OIE recognition of bovine spongiform encephalopathy status; (iii) design, implementation and public availability of computerized registries of animal feed, medications and veterinary biologicals, as well as veterinary establishments producing and distributing them; (iv) validation by reference laboratories of four methods of disease diagnosis in LAVECEN; (v) preparation of the official national strategy for bovine traceability and implementation of a pilot program in three provinces; (vi) preparation of the official national programs for control of brucellosis and tuberculosis, agreed with livestock producers, and their implementation in three provinces to declare a zone free of these diseases; and (vii) update of the official national classical swine fever program, agreed with the hog producers' associations and its implementation, including active surveillance in five frontier provinces with a view to eradicating the disease from the national territory.
- 1.19 **Component 3. Strengthening plant health services.** This component seeks to improve the phytosanitary situation in the country as measured by the number of

A2 pests⁹ present. It will finance: (i) training in Integrated Crop Management, combined with GAP; (ii) design, implementation and public availability of computerized registries of pesticides and pesticide suppliers, including an audit of the trade to guarantee compliance with legislation; (iii) update of requirements and procedures for phytosanitary inspection of imports and exports as well as training and equipment for inspectors; and (iv) expansion of the analytic capacity of the post-entry plant quarantine and diagnostic laboratory at Las Americas International Airport, with incorporation of analysis in virology and bacteriology and ISO 17025 accreditation of four analytical techniques.

- 1.20 **Component 4. Institutional management.** This component will promote progress in integrating the management of health and safety services as measured by the number of critical processes implemented with standardized criteria and in a coordinated manner by more than one service, and the application of fees calculated on a cost-recovery basis. It includes: (i) design of an Integrated Strategic Plan for animal and plant health and agrifood safety for the Ministry of Agriculture for the next five years, prepared with participation by public and private stakeholders, definition and implementation of the operational structure that will integrate the Ministry of Agriculture's health and safety activities, and preparation and monitoring of integrated annual work plans; (ii) design and implementation of an information system interconnected among all the health and safety services offered by the Ministry of Agriculture, and which will facilitate the exchange of information with other institutions, especially the ministries of public health and environment; and (iii) harmonization of public availability of standards and procedural manuals, including revision and update of the systems for charging for services on the basis of operating costs.
- 1.21 **Program cost and financing.** The total cost of the program is estimated at US\$11 million, of which the Bank will provide US\$10 million from the Single Currency Facility of its Ordinary Capital. Table I-2 presents the breakdown of costs and their source of financing.

⁹ A2 pests are quarantine pests that have localized distribution and are subject to official control under the International Plant Protection Convention.

Table I-2. Program cost and financing (in US\$ millions)

Investment component	IDP	Local contribution	Total	%
I. Program administration	0.71	0.61	1.32	12.0
II. Direct costs	8.99	0.39	9.38	85.3
2.1 Food safety	3.09	0.10	3.19	29.0
2.2 Animal health	2.73	0.12	2.85	26.9
2.3 Plant health	2.34	0.12	2.46	22.4
2.4 Institutional management	0.83	0.05	0.88	8.0
III. Monitoring, evaluation, and audit	0.30	0	0.30	2.7
Total	10.0	1.0	11.0	
Percentage	90.9	9.1	100	

C. Results matrix with key indicators

- 1.22 The results matrix was agreed with the Ministry of Agriculture, and presents in detail all the indicators of impact, outcomes, and outputs associated with program objectives and components. The program will help to boost agricultural productivity and market access for products in the sector, in line with the country strategy. The indicators used for measurement purposes will be crop and livestock yields and the percentage of containers of agricultural exports shipped to the European Union and the United States rejected due to pesticide residues, before and after the program. The performance gains in health and safety services will be measured by indices resulting from application of the PVS tools. The number of producers who will benefit directly is estimated at 54,000, a figure which will count towards the target set in the GCI-9 Results Framework for farmers given access to better agricultural services and investments. The number of women beneficiaries will be counted during execution. Given the nature of health and safety services as public goods, all the country's farmers and livestock producers will benefit from the program.

II. FINANCIAL STRUCTURE AND PRINCIPAL RISKS

A. Financing instruments

- 2.1 The project is structured as a specific investment loan, to be executed in five years according to the following disbursement schedule:

Table II-1 Disbursement schedule (in %)

Source	Year 1	Year 2	Year 3	Year 4	Year 5
IDB (Ordinary Capital)	15%	34%	23%	19%	9%

B. Economic feasibility and sustainability

- 2.2 An economic analysis of the program's costs and benefits was conducted in order to measure the return on the proposed investments. On the basis of the incremental economic effect at market prices, and considering an impact horizon of 10 years, a net present value (NPV) of US\$11.4 million was obtained, with an internal rate of return (IRR) of 38%. These results are due to improvements in the productive agricultural sector; they do not take into account the probable benefits flowing from reduced costs associated with diseases transmitted by foodstuffs, as there are no data for establishing such an attribution in a reliable manner. On the grounds cited, the benefit/cost ratio amounts to US\$2.36 for each dollar invested. These results were subjected to a sensitivity analysis, which found that even under a pessimistic scenario (with costs 20% higher than budgeted and benefits 25% lower than estimated) the IRR would be 24% with an NPV of US\$6.6 million and a benefit/cost ratio of 1.51. At the same time, the values were corrected to economic prices, eliminating taxes and State subsidies for strategic items in the national diet (rice, beans and milk), again producing similar indicators (NPV of US\$10.9 million, IRR of 41%), confirming the economic justification of the investments planned under the program.
- 2.3 **Sustainability.** Program costs take into account the annual operating and maintenance costs of program-financed investments. These amounts represent less than 0.5% of the annual operating budget of the Ministry of Agriculture, and no constraint in terms of future budgetary allocations to cover these costs is foreseen. The program, in turn, will support a review of health and safety service charges and estimation of their operating costs, which should lead to improved revenues from the delivery of health and safety services.

C. Social and environmental safeguard risks

- 2.4 The principal social and environmental impacts of the program will be positive, as the objective of the program is to improve the country's capacity to protect plant and animal health and the safety of foodstuffs of agricultural origin produced in the country. A positive environmental and social impact is expected from more rational use of pesticides on a group of priority crops through implementation of GAP, which includes integrated pest and crop management that will result in less environmental pollution and less exposure to pesticides for farm workers.
- 2.5 The potentially adverse environmental impacts will be occasional and of limited scope, and will be related to the remodeling of infrastructure and the operation of laboratories and quarantine stations. There are not expected to be any adverse impacts on fragile habitats or endangered species. Each remodeling project will comply with environmental standards and will be accompanied by environmental mitigation and management measures which will be incorporated in the bidding documents for the works and will be included in the Environmental and Social Management Plan (ESMP). When it comes to the operation of laboratories and quarantine stations, the impacts may arise from a marginally increased, but still

small, use of toxic and biological substances. Small quantities of hazardous and biological wastes will also be produced, final disposal of which will follow national and international standards. The program will support improvements in the environmental management and the hygiene and safety of laboratories, quarantine stations, and quarantine inspection services.

- 2.6 Social impacts will be positive, as the program will help increase the safety of foodstuffs through the dissemination of GMP and the training of producers and processors in GAP and GLP throughout the agrifood chain, from production to consumption. The program will encourage participation by all stakeholders in the supply chain in prevention and control of diseases and pests that affect animal and plant health. It will contribute in particular to the rational use of pesticides through the dissemination of GAP and strengthening of Ministry of Agriculture units responsible for registration and inspection of pesticides. It includes public communication and dissemination of program activities. Following the guidelines in the Bank's Environment and Safeguards Compliance Policy (OP-703 and OP-765), using the safeguards filter, the project team classified this as a category "B" operation. In line with experience in similar projects, an environmental and social analysis was conducted and an Environmental and Social Management Plan (ESMP) was prepared for the program. All the information was incorporated into the Environmental and Social Management Report for the program. The ESMP is included in the Program Operating Manual.

D. Fiduciary risks and other risks

- 2.7 Risks were evaluated using the "Risk Management in Sovereign-Guaranteed Projects" methodology, which included a stakeholder workshop and an agreement on mitigation measures. The final evaluation produced a medium risk rating ([Risk matrix](#)). As part of program preparation, an institutional analysis was conducted of the Ministry of Agriculture, as the executing agency for the program, as well as of the Project Execution Office (PEO), using the components and guidelines of the Institutional Capacity Assessment System. It included: (i) planning and organizational capacity (activities planning system and administrative organization system); (ii) execution capacity (personnel administration system, goods and services administration system, and financial administration system); and (iii) control capacity (internal control system and external control system).
- 2.8 As regards the PEO, which will be responsible for program administration, the analysis found, among other things: (i) an operating structure consistent with Bank requirements for technical and administrative execution; (ii) integrated systems of financial, accounting and budgetary management, with procedures, processes, standards and reports consistent with Bank guidelines; (iii) internal and external controls consistent with Bank standards and compliant with national legislation; and (iv) procurement systems operating under the Bank's own purchasing and contracting procedures. It is this last point that led to the "medium" risk rating, which will be mitigated by hiring a full-time procurement specialist during program execution. As that specialist will be hired with program funds, and given the

structure and experience of personnel with execution of the PATCA, it is expected that the PEO will execute the program in an effective and transparent manner.

- 2.9 **Audits.** Pursuant to the Financial Management Policy for IDB-financed Projects (document OP-273-1), the Bank requires the executing agency to submit audited financial statements (AFS) for the program annually within a contractually determined period. Those statements are to be prepared by an external audit firm acceptable to the Bank. The Ministry of Agriculture will be responsible for: (i) preparing and supplying the financial statements for the project, and the necessary supplementary information, to the external auditors, in accordance with Bank rules; (ii) reviewing and approving the AFS; and (iii) submitting the AFS to the Bank within the contractually stipulated period. In addition, the external auditors will be required to prepare a preliminary six-month audit report, which the Ministry of Agriculture will submit to the Bank.

III. IMPLEMENTATION AND MANAGEMENT PLAN

A. Program execution and administration

- 3.1 The borrower under the program will be the Dominican Republic, and the executing agency will be the Ministry of Agriculture. For these purposes, the borrower will transfer to the Ministry of Agriculture, through the national budget, the loan proceeds and local counterpart contribution for execution of program activities. The Ministry of Agriculture will administer, supervise, and evaluate the program through the PEO, with participation of the Ministry of Agriculture technical units responsible for health and safety, and the advice of the Program Advisory Committee. Details of the responsibilities and relationships between the program players are described in the Program Operating Manual. **Entry into force of the final version of the manual will be a condition precedent to the first disbursement under the program.**
- 3.2 The PEO was constituted by Ministerial Resolution 14-2010 for the execution of projects with external financing, initially from the IDB and the International Fund for Agricultural Development (IFAD). Among its functions are: (i) to oversee compliance with the contractual conditions of the program; (ii) to request disbursements from the Bank; (iii) to plan, prepare and organize the annual work plans and to coordinate, implement and monitor program activities; and (iv) to prepare the required reports. The PEO has four operational areas: the Directorate, Financial Administration, IT Services, and Technical Coordination. The animal health, plant health and food safety branches (DSA, DSV and DIA) of the Ministry of Agriculture will be actively involved in planning, monitoring and evaluating the program, as well as in implementing and supervising the technical and environmental aspects of program activities, including inspection of works and monitoring of their operation and maintenance, within their areas of responsibility. Reflecting the importance of involving the various public and private stakeholders in health and safety issues, an advisory council for the program, chaired by the

Minister of Agriculture, will provide advice and will facilitate dissemination and coordination among all stakeholders in program execution.

- 3.3 **Procurement.** The procurement of goods and services and the selecting and contracting of consulting services will be carried out by the PEO in accordance with the Bank's "Policies for the procurement of works and goods financed by the IDB" (document GN-2349-9) and "Policies for selection and contracting of consultants financed by the IDB" (document GN-2350-9). The Ministry of Agriculture has worked out a procurement plan with the Bank covering the program execution period. The borrower will update the procurement plan annually as required, or when there are substantial changes. Any revision to the plan must be agreed with the Bank. The Bank will supervise program procurement and contracting on an ex ante basis during the first 12 months of execution. At the request of the government, and after a further evaluation of the Ministry of Agriculture's capacities and performance, subsequent procurement processes may be reviewed ex post.
- 3.4 **Retroactive recognition of eligible expenditures.** The Bank may recognize up to US\$300,000 in expenditures eligible for financing by the Bank under the program, provided they were incurred after the date of Bank approval of the project profile (21 January 2011), and provided their objective was to improve the design of the program and/or to advance its maturity prior to approval (e.g. consulting services to define technical and operational characteristics of program interventions). These procedures are consistent with Bank policy governing retroactive expenditures (OP-504).

B. Monitoring and evaluation plan

- 3.5 The program has a [Monitoring and Evaluation Plan](#) to ensure achievement of outcomes and fulfillment of the targets proposed in the Results Matrix. The Ministry of Agriculture, through the PEO, will generate and maintain the information required for monitoring the output and outcome indicators. The plan includes a schedule of activities and the responsible parties, sources of financing and information, means of verification for the indicators, and a budget for execution.
- 3.6 The PEO will prepare progress reports on the program and send them to the Bank within 60 days after the end of each six-month period during program execution. Those reports will focus on the achievement of output indicators and progress on the outcomes in the Results Matrix, and will identify any problems encountered and propose corrective measures. The reports for the second half-year will also include the annual work plan for the following calendar year, with a forecast of disbursements, an updated procurement plan, and an updated risk matrix. During execution two independent evaluations will be conducted, one 24 months into program execution, and a final evaluation. The PEO will present the corresponding reports to the Bank within 90 days after 24 months has elapsed from the first

disbursement, and within 90 days after 90% of loan funds has been disbursed, respectively.

- 3.7 The program's impact will be subjected to a rigorous evaluation using various methods, depending on the component. For GAP activities an experimental methodology will be used to identify direct and indirect impacts through a random selection of beneficiaries. The impact and outcome indicators will be analyzed using the instrumental variables methodology. For evaluating disease control activities under the animal health component, a quasi-experimental "difference in difference" methodology will be used, while the institutional component will be evaluated using reflexive (before and after) comparisons. The information required for the impact evaluation will be generated through an ad hoc survey of producers (beneficiaries and nonbeneficiaries) administered before the program begins and again at the end of the program in order to generate panel data. The conclusions from the impact evaluation will provide empirical evidence of the effectiveness of interventions of this kind in the region.

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, to support climate chance initiatives, renewable energy and environmental sustainability and to support regional cooperation and integration.		
Regional Development Goals	The intervention contributes to competitive regional and global international integration and to protecting the environment, responding to climate change, promoting renewable energy, and enhancing food security.		
Bank Output Contribution (as defined in Results Framework of IDB-9)	The intervention contributes to Bank output: 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-2581	The intervention contributes to improve productivity of the agricultural sector.	
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
	10.0		10
3. Evidence-based Assessment & Solution	10.0	25%	10
4. Ex ante Economic Analysis	10.0	25%	10
5. Monitoring and Evaluation	10.0	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	This program aims at reducing food toxicity levels by promoting environmentally friendly techniques for pesticide utilization through good practices in agriculture.	
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	yes	DR-T1055.	
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 of the program aims at providing rigorous empirical evidence to confirm the effectiveness of farmers training on agricultural good practices using a randomized design.	

The program will contribute to the increase of productivity in the agriculture sector and to improve the access of agricultural product both in domestic and international markets. Moreover, the program will contribute to the reduction of sanitary risks in the country thus improving opportunities for exports through a higher recognition of the country's phytozoosanitary system.

The intervention is aligned with all dimensions of the lending program (lending for small and vulnerable countries, lending for poverty reduction and equity enhancement, to support climate change initiatives, lending for renewable energy and environmental sustainability and lending to support regional cooperation and integration). Also, it is aligned with the country strategy.

The program's logic is consistent with the diagnostics and identified objectives. 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 applying different methodologies for each component. As per the component related to transmission of agricultural best practices, the impact evaluation will be based on a randomized methodology that will allow identifying direct and indirect impacts through a randomized selection of the group of beneficiaries. The analysis on the impact and outcome indicators will be made using the methodology of instrumental variables. Moreover, the evaluation of the component for animal health will be based on a quasi-experimental methodology (difference in differences), while the institutional component will be evaluated through a reflexive methodology. The necessary information for the impact evaluation will be generated through an ad hoc survey for producers (beneficiaries and non beneficiaries) that will be managed before the beginning of the intervention and after the implementation in order to generate a data panel. The results of the impact evaluation will provide empirical evidence to demonstrate the effectiveness of this type of intervention in the region. The project has a risk matrix that identifies potential risks and mitigation measures, as well as indicator to monitoring the implementation of the mitigation measures.

RESULTS MATRIX

<i>Program objectives</i>	The program will help boost productivity in the agricultural sector and improve access for the country's agricultural products to domestic and international markets, by strengthening the government's capacity to provide integrated animal and plant health and agrifood safety services.		
Goal	Baseline	Target	Observations
<p>Goal: Increase in agricultural productivity</p> <p>Indicator: Agricultural yields per hectare</p> <p>Production of milk and meat per animal</p>	<p>Mangoes: 9.47 ton/ha Avocados: 19.32 ton/ha Bananas: 25.08 ton/ha Rice: 3.03 ton/ha Potatoes: 21.97 ton/ha Garlic: 5.76 ton/ha Eggplant: 6.36 ton/ha</p> <p>Beef: 1980 kg/Animal Pork: 687 kg/Animal Fresh milk: 1.46 ton/Animal</p>	<p>Mangoes: 10.41 ton/ha Avocados: 21.25 ton/ha Bananas: 27.58 ton/ha Rice: 3.33 ton/ha Potatoes: 24.16 ton/ha Garlic: 6.33 ton/ha Eggplant: 7 ton/ha</p> <p>Beef: 2178 kg/Animal Pork: 755 kg/Animal Fresh milk 1.6 ton/Animal</p>	<p>Source: The baseline is taken from FAO-STATS for the year 2009. The increase represents 10%.</p>
<p>Goal: Improvement in access for agricultural products to international markets</p> <p>Indicator: Percentage of containers of agricultural products exported to the European Union and United States that are rejected due to pesticide residues, before and after the program.</p> <p>Number of containers of agricultural products exported to the European Union and United States that are rejected for phytosanitary problems, before and after the program.</p>	<p>EU: 8% year 2010 USA: 8% years 2007-2010</p> <p>125 (year 2010)</p>	<p><1%</p> <p>13 (equivalent to 10% of base year)</p>	<p>Source: Data from PEO.</p>

Component I. Strengthening agrifood safety services	Base line (2010)	Year 1	Year 2	Year 3	Year 4	Year 5	Target	Observations
<p>Outcome: Reduction in the presence of residues and contaminants in foods of agricultural and fisheries origin</p> <p>Indicators:</p> <ul style="list-style-type: none"> ▪ Difference in the percentage of foods marketed with levels of chemical or biological contaminants above those permitted (beneficiaries versus control group) ▪ Difference in percentage cost reduction through application of GAP (beneficiaries versus control group) <p>Outcome: Improvement in the performance of agrifood safety services</p> <ul style="list-style-type: none"> • Performance index according to the PVS tool for food safety applied by IICA 	<p>0%</p> <p>0%</p> <p>38</p>					<p>-20%</p> <p>15%</p> <p>60</p>	<p>-20%</p> <p>15%</p> <p>60</p>	<p>Observations: The process of random selection ensures that initial differences between the beneficiary group and the control group will be zero.</p>
<p>Intermediate outcomes: Trained producers are adopting good practices</p> <ul style="list-style-type: none"> ▪ Number of trained farmers certified in GAP ▪ Number of trained livestock producers certified in GLP <p>Nonbeneficiary producers are adopting good practices</p> <ul style="list-style-type: none"> ▪ Number of farmers not trained but who are certified in GAP ▪ Number of livestock producers not trained but who are certified in GLP 	<p>0</p> <p>0</p> <p>0</p> <p>0</p>					<p>1,250</p> <p>100</p> <p>125</p> <p>10</p>	<p>1,250</p> <p>100</p> <p>125</p> <p>10</p>	<p>Observations: The target is to have 50% of producers trained.</p> <p>-The number of female and male producers will be counted during project execution.</p> <p>-The target for nonbeneficiary producers adopting good practices is based on an estimate of 10% through the indirect effects of observation and informal transfer of information.</p>

Component I. Strengthening agrifood safety services	Base line (2010)	Year 1	Year 2	Year 3	Year 4	Year 5	Target	Observations
Output 1.1: Functioning program of certification in GAP (in combination with ICM), GLP and GMP. Indicators: <ul style="list-style-type: none"> ▪ Certifying entities in GAP, GMP, GLP and HACCP registered by DIA ▪ Packers of nontraditional products with recognition that they comply with GMP ▪ Farmers trained by the program in GAP in combination with ICM (number of women/number of men) ▪ Livestock producers trained in GLP (number of women/number of men) 	0				3	3	6	Observations: The GAP program will include ICM (Integrated Crop Management) as one of its main components. This program will be run jointly with the Plant Health Department (DSV). Beneficiary farmers will be selected at random for bananas, rice, avocados, mangoes, Asian vegetables, and other crops.
	10	20	20	20	20	20	110	
	0		700	600	600	600	2,500	
	0		50	50	50	50	200	
Output 1.2: Registration system for producers and packers implemented and available to the public Indicators: <ul style="list-style-type: none"> ▪ Number of packers of nontraditional products officially registered with the DIA ▪ Registry of agricultural and fishery production units that are marketing their goods through registered packers 	10	20	20	20	30	30	130	
	0			1			1	
Output 1.3: Chemical and biological residue surveillance system for the production of fruits, vegetables, animal and fish products, established and operating.								Observations: -Surveillance programs include one for fruits, one for meat, and one for fish products

<p>Indicators:</p> <ul style="list-style-type: none"> ▪ Residue and contaminant surveillance programs prepared and approved by resolution following Codex standards ▪ Baseline contaminant level reports for the three selected products in surveillance programs. ▪ Contaminant level monitoring reports for the three selected products in surveillance programs. ▪ Food analysis methods accredited under ISO 17025 in LAVECEN ▪ LAVECEN quality control division certified to ISO 9000 	0	3					3	<p>- ISO 17025-validated methods include: 2 for chemicals and 2 for microbiology</p>
<p>Output 1.4: Consumers receiving information on certification programs in GAP, GLP and GMP.</p> <p>Indicators:</p> <ul style="list-style-type: none"> ▪ Number of consumers receiving information on certification programs in GAP, GLP and GMP. 	0		250,000	500,000	1,000,000	1,000,000	1,000,000	<p>Observations:</p> <p>-The information strategy includes mass-media publicity about the importance of consuming safe food, and promotion of certified foods.</p>
<p>Output 1.5: Information system created for the food safety subsystem.</p> <p>Indicators:</p> <ul style="list-style-type: none"> ▪ Website with food safety information functioning and interconnected with the central system, DSA and DSV with the following features: 	0			1			1	<p>Observations:</p> <p>-The food safety information system will be connected to other subsystems of DSV and DSA.</p> <p>-The website must have the following features:</p> <ol style="list-style-type: none"> Registries GAP, GLP, GMP programs Certifications

Component II. Strengthening animal health services	Base line (2010)	Year 1	Year 2	Year 3	Year 4	Year 5	Target	Observations
Outcome: Improved animal health conditions in the country Indicator: <ul style="list-style-type: none"> Number of diseases of which the country remains free according to the OIE. Number of diseases eradicated (CSF) Number of provinces declared brucellosis and tuberculosis-free zones BSE status classified as "controlled risk" by OIE Percentage difference in reduced production losses between beneficiaries and control group 	50 0 0 3 0	50	50	50	50	50 1 3	50 1 3 2 30%	Observations: -The disease is deemed eradicated when the country is declared CSF-free -The provinces to be declared free zones by OIE include Puerto Plata, Espaillat and María Trinidad Sanchez. -Legislation includes the general law on animal feed 259 and Decree 625. -BSE risk status: Category 2 is "controlled risk", and Category 3 is "undetermined risk".
Outcome: Improved performance of animal health services <ul style="list-style-type: none"> Performance index according to the veterinary services performance rating tool applied by OIE 	49%					55%	55%	Observations: -On a scale of 1 to 5, the OIE gave the DR a rating of 2.46, equivalent to 49.2%.
Output 2.1: Animal health surveillance and emergency response system established and operating Indicators: <ul style="list-style-type: none"> Official programs for control and eradication of bovine brucellosis, TB and CSF agreed with producers and officially approved. National bovine traceability program designed and approved officially. Number of provinces with a pilot bovine traceability program implemented. Number of official technicians and assistants trained in traceability, surveillance, emergency response and disease control systems. 	0 0 0 0		3 1				3 1 3 1200	Means of Verification: -Official programs verified by official standard and signed agreements -Bovine traceability program designed at the national level, in light of OIE recommendations and regional agreements, with official approval and implemented as a pilot project in the provinces of Puerto Plata, Espaillat and Maria Trinidad Sanchez.

Component II. Strengthening animal health services	Base line (2010)	Year 1	Year 2	Year 3	Year 4	Year 5	Target	Observations
Output 2.2: Increased diagnostic capacity for the Central Veterinary Laboratory Indicators: <ul style="list-style-type: none"> ▪ Number of persons trained in methods for diagnosing BSE, Brucellosis (competitive ELISA, polarized fluorescence and isolation) and Tuberculosis (bacterium typification), as per OIE standards ▪ Diagnostic methods for BSE, CSF, brucellosis and TB validated by a reference laboratory 	0		10	10	10		10	Methods of verification: - Validation of the methods will be verified by a validation report issued by the reference laboratory
	0		2	2			4	
Output 2.3: Quarantine protection system improved with the capacity to prevent entry of animal diseases. Indicators: <ul style="list-style-type: none"> • An adequate and expanded animal quarantine station meeting biosafety and environmental standards. • Number of airport, seaport and frontier post technicians trained in quarantine procedures. • Number of persons in the risk analysis unit trained and performing quantitative risk analysis. 	0			1			1	Observations: -Training will include 79 persons from airports, seaports and border posts as well as 15 persons from central offices.
	0	94	94	94	94	94	94	
	0	5	5	5			5	
Output 2.4: Official system for registering veterinary facilities implemented and available to the public Indicators: <ul style="list-style-type: none"> ▪ Publication of new regulations for the audit of facilities ▪ Census of veterinary facilities conducted ▪ Number of veterinary facilities registered with DSA ▪ Number of veterinary facilities audited ▪ Official registry system publicly available at the website 	0		1				1	Means of verification: -The regulations must follow the guidelines stipulated by CAMEVET (Americas Committee of Veterinary Medicines of the OIE)
	0			1			1	Observations: *The value of the baseline is cumulative over approximately 7 years.
	241*	50	50	50	50	50	491	There are estimated to be about 650 facilities in the country.
	0	80	80	80	80	80	400	
	0				1		1	

Component II. Strengthening animal health services	Base line (2010)	Year 1	Year 2	Year 3	Year 4	Year 5	Target	Observations
Output 2.5: Official registry system for animal feed, drugs and veterinary biologicals implemented and publicly available. Indicators: <ul style="list-style-type: none"> Registration and audit standards updated and officially published. Standard for registration of biologicals approved and officially published Official registration system publicly available at the website. Number of technicians trained in registration and audit. 	0		2				2	Observations: -The legal basis includes Regulation 521-06 and Decree 2162
	0	1					1	
	0			1			1	
	0	120	120	120	120	120	120	
Output 2.6: Creation of an information system for the Animal Health subsystem Indicators: <ul style="list-style-type: none"> Website with information on animal health functioning and interconnected with the central system, DIA and DSV. 	0				1		1	Observations: -The DSA information system will have to be connected with the other safety and DSV subsystems. - The website must have the following features: <ol style="list-style-type: none"> Registries Morbidity data Epidemiology bulletin Interconnection of the quarantine station with border posts.

Component III. Strengthening the plant health services	Base line (2010)	Year 1	Year 2	Year 3	Year 4	Year 5	Target	Observations
<p>Outcome: Improvement in the country's phytosanitary situation</p> <p>Indicators:</p> <ul style="list-style-type: none"> ▪ The number of A2 pests remains steady ▪ Percentage difference in the change in the toxicity index (beneficiaries versus control group) ▪ Percentage difference in reduced production losses between beneficiaries and control group <p>Outcome: Improvement in the performance of the plant health services.</p> <p>Indicator:</p> <ul style="list-style-type: none"> ▪ Performance index according to the PVS tool for plant health applied by IICA. 	<p>153</p> <p>0</p> <p>0%</p> <p>59%</p>					<p>153</p> <p>-5%</p> <p>30%</p> <p>70%</p>	<p>153</p> <p>-5%</p> <p>30%</p> <p>70%</p>	<p>Observations:</p> <p>A1: Exotic quarantine pests</p> <p>A2: Quarantine pests that are locally present and are subject to official control.</p> <p>Toxicity index estimated from surveys on pesticide use (beneficiaries and control group)</p>
<p>Output 3.1: Official registration system of pesticide suppliers implemented and publicly available</p> <p>Indicators:</p> <ul style="list-style-type: none"> ▪ Census of pesticide suppliers conducted ▪ Number of pesticide suppliers audited. ▪ Official registration system publicly available on the website. 	<p>0</p> <p>225*</p> <p>0</p>	100	100	100	100	100	<p>1</p> <p>725</p> <p>1</p>	<p>Observations:</p> <p>-The number of audits includes suppliers' facilities that must be re-audited to verify compliance.</p> <p>-There are estimated to be 650 suppliers.</p> <p>*This baseline is from a joint project with the FAO, which increased the number of audits in 2010 substantially. The baseline for a typical year suggests an average of 30 suppliers audited.</p>

Component III. Strengthening the plant health services	Base line (2010)	Year 1	Year 2	Year 3	Year 4	Year 5	Target	Observations
Output 3.2: Official registration system for pesticides implemented and publicly available. Indicators: <ul style="list-style-type: none"> Number of pesticides marketed in the country that are banned by domestic law and international conventions Official registration system for pesticides publicly available on the website 	1* 0		1			0	0 1	Methods of verification: *The baseline will be updated in the first year.
Output 3.3: Strengthened system for phytosanitary inspection of imports and exports, risk analysis and phytosanitary surveillance Indicators: <ul style="list-style-type: none"> Number of export inspectors trained in quarantine procedures Number of import inspectors trained in quarantine procedures Updates to the list of pests officially published and publicly available. 	0 0 1	30 35 1	30 35 1				60 70 5	Observations: - Export inspection includes pre-inspection as well
Output 3.4: Greater diagnostic capacity in the DSV laboratory. Indicators: <ul style="list-style-type: none"> Number of new sections operating in the DSV laboratory. Number of persons trained in virology and bacteriology analysis DSV laboratory techniques accredited to ISO 17025 	0 2 0		4	2	2 4	2 4	2 4 4	Observations: - The new sections include virology and bacteriology. - The baseline includes two persons trained in virology, who will receive refresher training in year 2
Output 3.5: Creation of an information system for the Plant Health subsystem Indicators: <ul style="list-style-type: none"> Website with information on plant health functioning and interconnected with the central system, DIA and DSA with the following features: <ol style="list-style-type: none"> Registries Lists of pests Pest alert bulletins 	0				1		1	Observations: - The DSV information system will have to be connected with the other safety and DSA subsystems.

Component IV. Institutional management	Base line (year 2010)	Year 1	Year 2	Year 3	Year 4	Year 5	Target	Observations
Outcome: Health and safety services are integrated and standardized. Indicators: <ul style="list-style-type: none"> Number of critical processes in the animal health, plant health and food safety services operating with standardized criteria Number of critical processes in the animal health, plant health and food safety services involving at least two members of the system. Application of cost-recovery fees for health and safety services. 	0					4	4	Observations: -Standardized Services: registration, inspection, sampling, risk assessment, work plan. -Integrated Services: inspection, registration, risk analysis, quarantine and sampling.
Output 4.1: Strategic Plan for Plant and Animal Health and Agrifood Safety prepared in a participatory manner, valid and publicly available on the website. Indicator: <ul style="list-style-type: none"> Number of strategic plans Operating structure integrating the health and safety services of the Ministry of Agriculture approved and implemented 	0	1	1	1	1	1	1	Observations: -Validity is for five years. -The plan must be approved by the Minister of Agriculture. -The operating structure for integration of the services as approved by the competent national authority.
Output 4.2: Annual work plans prepared, approved and funded in accordance with the strategic plan Indicator: <ul style="list-style-type: none"> Number of work plans 	0	0	1	2	3	4	4	Observations: -The plan must be approved by the Minister of Agriculture.
Output 4.3: Integrated information system for the animal health, plant health and food safety services developed and functioning Indicators: <ul style="list-style-type: none"> Information system available on the website 	0	0	0	0	1	1	1	

Component IV. Institutional management	Base line (year 2010)	Year 1	Year 2	Year 3	Year 4	Year 5	Target	Observations
Output 4.4: Health and safety standards, regulations and resolutions that are consistent, without duplications, and harmonized with international rules. Indicators: <ul style="list-style-type: none"> Percentage of new standards, regulations and resolutions harmonized with international rules and without duplications. 	0	100%	100%	100%	100%	100%	100%	
Output 4.5: Definition and approval of cost-recovery fees for at least one service Indicators: <ul style="list-style-type: none"> Number of services with cost-recovery fees defined and approved. 	0	0	1	1	1	1	1	

FIDUCIARY AGREEMENTS AND REQUIREMENTS

Country: Dominican Republic

Project: DR-L048, Agrifood Health and Safety Program

Executing agency: Ministry of Agriculture, through its Project Execution Office

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I. EXECUTIVE SUMMARY

- 1.1 Preparation of the Agrifood Health and Safety Program, established by the Inter-American Development Bank (IDB) and the Ministry of Agriculture, required an institutional capacity assessment to identify and evaluate risks relating to its execution as well as to determine the feasibility of the expected outcomes. The executing agency for this project is the Ministry of Agriculture, represented by its Project Execution Office (PEO). The PEO has been designated as such by Ministerial Resolution 14-2010, after having served as the Project Execution Unit for other externally financed programs including PATCA I (completed) and PATCA II (now in execution).
- 1.2 To determine the institutional capacity of the Ministry of Agriculture as executing agency, the project team relied on a technical consultant who applied the components and guidelines of the Institutional Capacity Assessment System (ICAS) with respect to capacities for (1) programming and organization, (2) execution, and (3) control, through a process of interviews and interactions between the assessor and the pertinent units of the executing agency. The consultant's analysis also covered the PEO.
- 1.3 The consultant conducted the analysis taking a qualitative approach to each of the ICAS components, instead of using its traditional questionnaires. The idea was to obtain an overview of the institutional and fiduciary capacity of the Ministry of Agriculture and the PEO as executing agency for the program. It is important to note that in 2010 the Country Office fiduciary team performed a diagnostic analysis of internal control in the Ministry of Agriculture and the PEO, on the basis of which it prepared an institutional action plan for improving and/or strengthening internal controls and processes of both entities in the financial and accounting, human resources and technical areas. That plan has been in implementation since the beginning of 2011, and is being monitored by the Comptroller General's Office, which serves as the lead agency for internal control.
- 1.4 Among the most striking conclusions from the ICAS assessments and the internal control analysis were those pointing to deep-rooted weaknesses in the

administrative and control units of the Ministry of Agriculture and the lack of manuals, regulations and guidelines for organizing operational coordination and management. Other conclusions indicate however that the PEO has adequate management capacity to execute the program. In light of these results, the project team concluded that program execution is feasible under the technical and operational administration of the PEO. The project team also considers it important to incorporate component 4, institutional strengthening, which would contribute to building the capacity of the Ministry of Agriculture line units to plan and execute activities in areas supported by the program.

II. THE FIDUCIARY CONTEXT OF THE EXECUTING AGENCY

- 2.1 Matters relating to financial administration in the Project Execution Office are conducted by officials with adequate profile and experience in their respective area. Moreover, there is a general manual of procedures which clearly sets out guidelines for internal processes and controls. As well, the different units that comprise the PEO—technical, operational and administrative—are properly coordinated among themselves, and their functions are clearly delineated.
- 2.2 There is an accounting system in use, known as UEPEX/SIGEF, which represents a project management sub-module of the national SIGEF system centralized in the Ministry of Finance. The UEPEX/SIGEF system records each financial transaction conducted, generating a folio number and the inflow or outflow item, the client involved, etc., and producing a daily support record for the information. The PEO also has a backup financial and accounting system that will be running in parallel to provide greater details on activities and costs. There is a physical filing system as well, for maintaining comprehensive documentation.
- 2.3 The ICAS identified some minor areas for improvement in the PEO, and accordingly procedures will be developed to improve certain accounting processes and formalize risk administration and program cost control.

III. EVALUATION OF FIDUCIARY RISK AND MITIGATION ACTIONS

- 3.1 Based on the results of the evaluations (ICAS and internal control analysis) as well as progress with the institutional action plan, the fiduciary team has updated its assessment of the institutional capacity of the PEO ([DR-L1048 Análisis Capacidad Institucional del MA IDBDOCS No. 36227355](#)) to execute the program, determining the levels of risk and the mitigation actions consistent with the GRP matrix. As will be seen from the following table, the evaluation produced a medium fiduciary risk, due essentially to weaknesses in the procurement and archiving areas:

Components of the institutional capacity analysis of the Ministry of Agriculture	Levels of risk			Recommended mitigation actions
	High	Medium	Low	
Legal aspects			X	Take this action, even though the risk is low: ensure that the PEO is included in the Ministry of Agriculture organization chart pursuant to Ministerial Resolution 14-2010
Organization and administration and human resources			X	No action required
Programming, planning and monitoring			X	This action is suggested, although the risk is low: implement all the strengthening actions planned under component 4 of the program
Programming and execution of procurement		X		(i) Strengthen the PEO by adding a procurement specialist who will at the same time work to strengthen the procurement department of the Ministry of Agriculture (ii) implement and use the SEPA (Procurement Plan Execution System).
Financial administration and accounting			X	No action required
Internal and external controls			X	No action required
Archives		X		(i) Prepare a protocol for the handling, control and security of files for the program and incorporate it as part of the program operating manual; (ii) identify and equip a suitable area for the archives.

IV. AGREEMENTS AND REQUIREMENTS FOR EXECUTION OF PROCUREMENT AND FINANCIAL MANAGEMENT

- 4.1 Program resources will be executed by the Ministry of Agriculture through the Project Execution Office
- 4.2 The fiduciary agreements and requirements relating to procurement establish the provisions applicable to execution of all procurement planned under the program, including the tables of thresholds for each item (goods and nonconsulting services, civil works, consulting services with firms and individual consultants), supervision, and provisions for records and archives.
- 4.3 The principal procurement items are presented in the Procurement Plan (see Initial Procurement Plan, [DR-L1048 Plan de adquisiciones IDBDOCS No. 36227311](#)).

- 4.4 The agreements and requirements relating to financial management establish the provisions with respect to: (i) programming and budgeting; (ii) accounting and information systems; (iii) disbursements and cash flow; (iv) internal control and internal audit; (v) external control and reporting; (vi) financial supervision plan; and (vii) execution mechanism.
- 4.5 The complete report on the fiduciary agreements and requirements is found in the full Annex of [Acuerdos y Requisitos fiduciarios IDBDOCS No. 36227397](#).

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

PROPOSED RESOLUTION DE-___/11

Dominican Republic. Loan ____/OC-DR to the Dominican Republic
Animal and Plant Health and Food Safety

The Board of Executive Directors

RESOLVES:

That the President of the Bank, or such representative as he shall designate, is authorized, in the name and on behalf of the Bank, to enter into such contract or contracts as may be necessary with the Dominican Republic, as Borrower, for the purpose of granting it a financing to cooperate in the execution of a program to support animal and plant health and food safety. Such financing will be for the amount of up to US\$10,000,000, from the resources of the Single Currency Facility of the Bank's Ordinary Capital, and will be subject to the Financial Terms and Conditions and the Special Contractual Conditions of the Project Summary of the Loan Proposal.

(Adopted on _____, 2011)

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