

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

BRAZIL

**PROGRAM TO MODERNIZE AND STRENGTHEN AGRICULTURAL HEALTH AND
FOOD SAFETY SERVICES (PRODEFESA)**

(BR-L1496)

LOAN PROPOSAL

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CONTENTS

PROJECT SUMMARY

I.	DESCRIPTION AND RESULTS MONITORING	1
A.	Background, problems to be addressed, and rationale	1
B.	Objectives, components, and cost	8
C.	Key results indicators	11
II.	FINANCING STRUCTURE AND MAIN RISKS	11
A.	Financing instruments	11
B.	Environmental and social risks	12
C.	Fiduciary risks	13
D.	Other project risks and key issues	14
III.	IMPLEMENTATION AND MANAGEMENT PLAN	15
A.	Summary of implementation arrangements	15
B.	Summary of arrangements for monitoring results	18

ANNEXES	
Annex I	Summary Development Effectiveness Matrix (DEM)
Annex II	Results Matrix
Annex III	Fiduciary Agreements and Requirements

LINKS
REQUIRED <ol style="list-style-type: none">1. Multiyear execution plan and annual work plan (AWP)2. Monitoring and Evaluation Plan3. Procurement Plan Components 3 and 44. Theory of change
OPTIONAL <ol style="list-style-type: none">1. Technical references2. Project economic analysis3. Institutional analysis4. Climate narrative5. Disbursement and Means of Verification Matrix6. Program Operating Regulations7. Technical Document Component (TDC) 1: Lanagro8. TDC 1: Vigiagro9. TDC 1: Inspection Services10. TDC 1: Regulatory Good Practices11. TDC 2: FMD and CSF12. TDC 2: Carambola fruit fly13. TDC 3: Knowledge and Innovation14. TDC 4: Monitoring and Evaluation

ABBREVIATIONS

AFS	Audited financial statement
AWP	Annual work program
CGU	Controladoria-Geral da União [Office of the Comptroller General]
CNPq	Conselho Nacional de Desenvolvimento Científico e Tecnológico [National Council for Scientific and Technological Development]
CSF	Classical swine fever
FAO	Food and Agriculture Organization of the United Nations
FMD	Foot-and-mouth disease
ICAP	Institutional Capacity Assessment Platform
IICA	Inter-American Institute for Cooperation on Agriculture
LANAGRO	National Agricultural Laboratories
LBR	Loan based on results
MAPA	Ministry of Agriculture, Livestock and Supply
MCTIC	Ministry of Science, Technology, Innovation, and Communication
MDB	Multilateral development bank
OIE	World Organisation for Animal Health
OVE	Office of Evaluation and Oversight
PDA	Plan de Defesa Agropecuária [Agricultural Protection Plan]
PNEFA	Programa Nacional de Erradicação de Febre Aftosa [National FMD Eradication Program]
SDA	Secretaria de Defesa Agropecuária [Agricultural Protection Secretariat]

PROJECT SUMMARY

BRAZIL PROGRAM TO MODERNIZE AND STRENGTHEN AGRICULTURAL HEALTH AND FOOD SAFETY SERVICES (PRODEFESA) (BR-L1496)

Financial Terms and Conditions				
Borrower: Federative Republic of Brazil			Flexible Financing Facility^(a)	
			Amortization period:	25 years
Executing agency: Federative Republic of Brazil, through the Ministry of Agriculture, Livestock and Supply (MAPA)			Disbursement period:	5 years
			Grace period:	5.5 years ^(b)
			Interest rate:	LIBOR-based
Source	Amount (US\$)	%	Credit fee:	(c)
IDB (Ordinary Capital)^(e)	195,000,000	97.5	Inspection and supervision fee:	(c)
Local	5,000,000	2.5	Weighted average life (WAL):	15.25 years ^(d)
Total	200,000,000	100.0	Approval currency:	United States Dollars
Project at a Glance				
Project objectives/description: The overall objective of the operation is to help increase agricultural productivity and improve access to domestic and international markets by strengthening the country's agricultural health services.				
Special contractual conditions precedent to the first disbursement of the loan based on results (Components 1 and 2): (i) approval and entry into force of the program Operating Regulations , under the terms agreed with the Bank (paragraph 3.9); (ii) creation of the program coordinating unit (PCU) and appointment of its members (paragraph 3.4); and (iii) contracting of the consulting services responsible for external results verification, in accordance with the terms of reference agreed beforehand with the Bank (paragraph 3.6).				
Special contractual conditions precedent to the first disbursement of the technical cooperation loan (Component 3): (i) approval and entry into force of the program Operating Regulations , under the terms agreed with the Bank (paragraph 3.9); and (ii) creation of the PCU and appointment of its members (paragraph 3.4).				
Special contractual condition for execution of the technical cooperation loan (Component 3): signing and entry into force of the technical cooperation agreement between the MAPA and the National Council for Scientific and Technological Development (CNPq) to conduct research activities and award postgraduate grants (paragraph 3.12).				
Exceptions to Bank policies: None				
Strategic Alignment				
Challenges:^(f)	SI <input type="checkbox"/>	PI <input checked="" type="checkbox"/>	EI <input checked="" type="checkbox"/>	
Crosscutting themes:^(g)	GD <input type="checkbox"/>	CC <input checked="" type="checkbox"/>	IC <input checked="" type="checkbox"/>	

^(a) Under the terms of the Flexible Financing Facility (FN-655-1), the borrower has the option of requesting changes to the amortization schedule as well as currency and interest rate conversions. The Bank will take operational and risk management considerations into account when reviewing such requests.

^(b) Under the flexible repayment options of the Flexible Financing Facility, changes to the grace period are permitted provided that they do not entail any extension of the original weighted average life of the loan or the last payment date as documented in the loan contract.

^(c) 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 applicable policies.

^(d) The original weighted average life may be shorter, depending on the signature date of the loan contract.

^(e) The total Bank loan proceeds will be used to finance program implementation through the two investment loan instruments, namely: (i) results based (Components 1 and 2); and (ii) technical cooperation loan (Component 3), in accordance with this document. Component 4 will be funded by the local counterpart. Funding will be formalized through a single loan contract to be entered into between the borrower and the IDB, in accordance with the financial terms and conditions and the special contractual conditions envisaged in the project summary.

^(f) SI (Social Inclusion and Equality); PI (Productivity and Innovation); and EI (Economic Integration).

^(g) GD (Gender Equality and Diversity); CC (Climate Change and Environmental Sustainability); and IC (Institutional Capacity and Rule of Law).

I. DESCRIPTION AND RESULTS MONITORING

A. Background, problems to be addressed, and rationale

- 1.1 The Government of Brazil has asked for support to finance a program to strengthen the Agricultural Health Services of the Ministry of Agriculture, Livestock, and Supply (MAPA) combining a loan based on results (LBR) and a technical cooperation loan.
- 1.2 **Sector context.** Brazil's agricultural sector is extremely important to its economy, representing 22% of gross domestic product (Ribeiro et al., 2015),¹ 44% of exports, and 37% of employment. According to the 2006 Agricultural Census, agricultural activities take place on 5 million farms covering 850 million hectares. The sector has grown significantly in recent decades. From 1976 to 2011 the area under cultivation, output, and yield of cereals and oilseeds grew by 32%, 240%, and 257%, respectively (Pereira et al., 2012). Output also rose in the case of sugar (369%), chicken (from 1 million to 13 million tons), pork (from 1 million to 2.1 million tons), and beef (2.1 million to 9.1 million tons). This growth has continued in recent years, with an annual increase in value of output of 3.8% in 2001-2014 (USDA, 2018), and has been associated with significant improvements in productivity. Between 1986 and 2016, the area devoted to cereal production shrank by 10%, while output rose by 95% (FAOStat, 2018). Beef farming productivity reached 49 kg per hectare, compared with 40 kg in Uruguay, 34 kg in Argentina, and 28 kg in Paraguay. The Brazilian agricultural sector's total factor productivity growth is one of the highest in Latin America (Nin-Pratt, A. et al., 2015).
- 1.3 Trade in agricultural products has benefited from the sector's growth. Brazil went from importing 30% of food consumed in the 1960s to being the world's third largest exporter of agricultural produce. It is the top producer of soy, coffee, sugar, orange juice, chicken, and ethanol, and the second largest producer of beef, maize, soybean oil and soybean flour, third largest producer of cotton, and fourth largest of pork. Agricultural exports in 2017 came to a value of US\$96 billion. Meat exports between 2015 and 2017 were worth US\$5.9 billion a year (Brazilian Association of Meat Exporters (ABIEC), 2018).
- 1.4 **Agricultural health.** Protecting animal health is a public good and is one of the main functions of the public bodies concerned with agriculture (OVE, 2015). Their main functions are: epidemiological and plant health oversight; health barrier and quarantine controls; and control and eradication of diseases and pests.
- 1.5 Empirical evidence shows that agricultural health has significant effects on agricultural productivity and market access, and in the case of zoonoses, can affect consumers' health (IDB, 2016). Agricultural health system failures cause enormous economic losses through reduced productivity caused by pests and diseases, as well as restrictions on market access. For example, outbreaks of foot-and-mouth disease (FMD) in 2001 in the United Kingdom and Uruguay caused losses of over US\$10 billion (Bates, 2016) and US\$80 million (FAO, 2002), respectively; an outbreak of classical swine fever (CSF) in the Netherlands in 1997 caused losses of US\$2.3 billion (Terpstra and de Smit, 2000); the epidemic of highly pathogenic avian influenza (HPAI) in the United States caused losses of US\$500 million in 2013

¹ See [Technical References](#).

(USDA, 2016). The detection of the Mediterranean fruit fly in New Zealand led to a two-year stop on exports of kiwifruit to China (Kiwifruitvine, 2014). The United States has imposed restrictions on the import of agricultural produce from countries in which certain pests are present (such as a ban on citrus fruit and peppers from Guyana to avoid introducing the carambola fruit fly (Aphis 2015 and 2018)).

- 1.6 Faced with these risks, there are two main reasons for investments in agricultural health services: (i) maintaining and raising productivity, respectively, by avoiding losses caused by new diseases and pests, and reducing the impact of existing ones; and (ii) facilitating foreign trade by complying with health and safety standards that enable access to external markets, which often offer higher prices than domestic markets.
- 1.7 Although investments in agricultural health services do not entirely eliminate the risk of impacts on output from disease and pests, they are highly cost-effective. An evaluation by OVE (2015) of six agricultural health projects shows that disease control and eradication campaigns by agricultural health organizations were successful at reducing the impacts of disease and pests on output. Peru's fruit-fly eradication program increased fruit production by 65% (Salazar et al., 2016). In 1995, the USDA estimated the net benefit of controlling the carambola fruit fly in South America at US\$800 million.
- 1.8 International evidence also shows benefits for trade. In Uruguay, obtaining FMD-free status without vaccination in 1996 increased the value of meat exports to the United States by more than 50% and saved US\$8 million a year in vaccines (Knight-Jones and Rushton, 2013; Otte et al., 2004). On losing this status in 2001, exports fell by 40% from 2000 levels (Ilundain et al., 2004). The price of beef exports from FMD-free countries is 93% higher than those from countries affected by the disease (ICA and CID, 2008).
- 1.9 **Agricultural health in Brazil.** The agricultural health situation in Brazil has made significant progress over the last decade, opening up access to new international markets, particularly for meat and fruit. For example, the World Organisation for Animal Health (OIE) declared Brazil FMD-free (with and without vaccination) in 2018. However, the size of the country, its diversity of ecosystems, and the length of its land borders (17,000 kilometers) with ten countries, and the scale of its agricultural trade, result in major health risks and challenges. The emergence of outbreaks of diseases such as FMD or the spread of pests such as fruit flies to other regions could have immediate impacts on costs, exports, and jobs. For example, the appearance of FMD in the State of Mato Grosso do Sul in 2005 resulted in the death of 78,000 head of cattle, a 15% drop in meat prices, closure of access to markets in over 30 countries, and a 40% reduction in exports. Between 2012 and 2013 the appearance in Mato Grosso and Bahia of *Helicoverpa armigera*, a pest affecting cotton and soy, raised spending on pesticides by 10% and resulted in losses of US\$800 million in 2013 alone (Pomari-Fernandes et al., 2015).
- 1.10 **Agricultural health services in Brazil.** The country has a long history of agricultural health, with an old and fragmented legal framework, including 12 laws and over 150 regulations. The decrees enacting the agricultural health services date back to 1934. More recently, the Unified Agricultural Health System (SUASA) was created²

² Law 8,171 of 17 January 1991, regulated by Decree 5,741 of 30 March 2006.

as a mechanism for involving the Federal government (MAPA), State governments (Agriculture Secretariats) and Municipios (Agriculture Secretariats).

- 1.11 Within the MAPA, the Secretariat for Agricultural Protection (SDA) is responsible for agricultural health and food (and beverage) safety measures and for the quality of agricultural inputs. Its main responsibilities are: (i) agricultural oversight at airports and borders; (ii) issuing regulations on the control and eradication of pests and diseases; (iii) approval of diagnostic methods; (iv) drafting health regulations for the import and export of animals and plants, and their products and byproducts; (v) registration of plants and products; (vi) inspection of products of animal and plant origin and agricultural inputs; and (vii) auditing, supervision, evaluation, and coordination of state and municipio agricultural health activities.
- 1.12 In 2016 the government drafted the Agricultural Protection Plan (PDA) (MAPA, 2016) defining the priorities for agricultural health policies. It has a ten-year horizon and six strategic pillars: (i) modernization and cutting red-tape, (ii) regulatory framework; (iii) knowledge and strategic intelligence; (iv) technical programs and projects; (v) sustainability of agricultural protection; and (vi) monitoring and evaluation. This operation aims to support implementation of the PDA over the next five years, focusing on the challenges in five of the six strategic pillars.
- 1.13 **“Modernization and cutting red tape” and “strengthening and modernizing the regulatory framework” strategic pillars.** Their objective is to turn the Secretariat for Agricultural Protection (SDA) into an effective, efficient results-oriented organization by strengthening its main services. The program will support the following services:
 - a. **National Agricultural Laboratories (LANAGRO).** This comprises a network of six laboratories performing the diagnostic tests necessary to monitor compliance with health standards, verify product quality, and identify disease outbreaks. Assessments of the Lanagro show that they face various problems, operate in an uncoordinated way, lack standardization of processes and procedures for important tasks such as receiving samples or purchasing supplies, lack planning of demand for laboratory tests, and have little or no process automation. Thirty percent of diagnostic tests take longer than standard times and the sample rejection rate is high. For example, 17% of physical-chemical tests and products of animal origin and 11% of wastes and food contaminants are rejected ([optional link 7](#)).
 - b. **International health monitoring.** The International Agricultural Monitoring System (Vigiagro) is responsible for controlling and monitoring imports, exports, and international transit of persons and goods through ports, airports, and border crossings. It is of strategic importance for the country: in 2017, 1.5 million import and export cargo inspections were carried out. Inspections are characterized by a low level of computerization, automation, or process standardization, and the failure to apply risk analysis. This results in shortcomings in inspections (Furlan, 2013), and long wait times for cargo at ports and airports, generating costs for importers and exporters. Cargo release takes an average of 4.5 days, against a target of 3 days (European Union average) ([optional link 8](#)).

- c. **Inspection, registration, and authorization.** Health inspection and the issuance of authorizations for the import of live animals and animal products, inspection and authorization of beverage exports, and the registration of products of animal origin, are all performed manually or in a semiautomated manner and in the presence of the interested parties. This results in processes that are slow and costly for the Agricultural Protection Secretariat (SDA) and for users. For example, registration of products of animal origin takes an average of 120 days, and inspection and authorization of beverage exports 45 days ([optional link 9](#)).
 - d. **Regulatory good practices.** The SDA is responsible for drafting and publishing regulatory acts concerning the management of agricultural health and the regulation of agricultural inputs and services, as well as products of animal and plant origin. Many of the regulations are out of date, do not conform to current technologies, and do not set clear limits of action and competencies ([optional link 10](#)). As a first step towards improving the management of standards, in 2015 the Manual of Regulatory Good Practices was approved, with a view to harmonizing regulatory activities.
- 1.14 **“Implementation and strengthening of priority technical programs and projects” strategic pillar.** This includes 18 projects and programs, prioritizing six: (i) fruit fly control; (ii) border monitoring and protection; (iii) FMD eradication and prevention; (iv) eradication and control of brucellosis and tuberculosis; (v) eradication of classical swine fever (CSF); and (vi) modernization of laboratories. This operation will support three of these programs (FMD, CSF and carambola fruit fly) considering that: (i) FMD and CSF are the most critical livestock diseases for exports, as their mere presence prevents access to overseas markets, and their spread to other areas could have serious impacts on producers’ costs; (ii) there are synergies in the implementation of FMD and CSF control, as they are carried out by the same veterinary services; (iii) the carambola fruit fly may significantly reduce fruit exports if it spreads to fruit producing areas; and (iv) tuberculosis and brucellosis do not affect exports and are not considered endemic in Brazil, such that their eradication is not envisaged in the medium term.
- a. **Foot-and-mouth disease (FMD).** In May 2018, the OIE declared Brazil FMD-free with vaccination (the state of Santa Catarina is free without vaccination). Brazil currently has a Strategic Plan under the National FMD Eradication Program (PNEFA), covering the period 2017-2026, which envisages the entire country being free of the disease without vaccination as of 2023 ([optional link 11](#)). This change would allow the country to access new export markets and command better prices (Alves and Martins, 2014). Brazil has not had access to the highest paying meat markets for several decades (Japan, South Korea, Canada, and the United States) as they do not import from countries with FMD (Miranda, 2001). FMD is one of the most frequent causes of non-tariff barriers to exports of beef and pork (Junqueira et al., 2007). It has a direct negative impact on production and results in high control and eradication costs (US\$220 million a year). Over the past ten years, FMD outbreaks caused losses of animals and falling prices (paragraph 1.9). Vaccination also results in lower productivity: 70% of livestock develops abscesses with an average of loss of 1.3 kg of meat in the affected area (Moura and Junqueira, 1999).

- b. **Classical swine fever (CSF).** In 2016, the OIE declared approximately half of the country by area, 84% of livestock, and almost the entire industry to be free of CSF. The CSF program aims to obtain a declaration of CSF-free status for the entire country ([optional link 11](#)). The presence of the disease is limited to the states in the north and north-east regions, where output is low and subsistence-oriented. Nevertheless, it affects the reliability of disease-free areas, and consequently their market access, as well as representing a risk of spread to states from which it has been eradicated (Freitas et al., 2007). It also affects productivity through a reduction in the number of piglets born and higher mortality rates (Zuge, 2018; ADAPEC, 2018). During an outbreak in Rio Grande do Sul in 1987 a mortality rate of 20% of live births was recorded, and mortality was also higher at other stages of production (Barcellos, 1992).
 - c. **Carambola fruit fly.** The Carambola fruit fly (*Bactrocera carambolae*) was reported in Suriname in 1975 (Sauers-Muller, 1991), subsequently spreading to Guyana, French Guiana, and Brazil. It is currently present in three states in the north of Brazil (Amapá, Roraima, and Pará). The Carambola fruit fly can attack 75 species of plant, including mango, avocado, papaya, citrus fruit, guava, and carambola (star fruit). In Brazil it has been detected in a smaller number of species (Lemos et al., 2014) and it is the only fruit fly not currently affecting export production zones. The risk of spread by movements of people and goods is high, with potential losses estimated at \$150 million a year due to export restrictions on the affected areas ([optional link 12](#)). The country is implementing an oversight and control program, with 7,774 fruit fly detection traps across the country, concentrated in the three states affected (7,284). In recent years the fly capture index in these three states has been brought down from 0.18 in 2013 to 0.02 in 2017.³
- 1.15 **Knowledge strengthening and strategic support strategic pillar.** The Agricultural Protection Plan (PDA) and MAPA studies ([optional link 13](#)) show that the effectiveness of agricultural health services is affected by shortcomings in employee competencies, lack of intelligence tools to support decision-making, and inadequate research and knowledge generation. The PDA therefore proposes: (i) skills development; (ii) application of strategic intelligence; (iii) support for research and development; (iv) building and strengthening of the network of partner entities; (v) implementing an international exchange program; (vi) building a technology park; and (vii) harmonization and standardization of how risk analysis is used. The program will support six (items (i) to (vi)) of these seven lines of action.
- 1.16 **Monitoring and evaluation strategic pillar.** This addresses the lack of automation in the monitoring and evaluation of agricultural health services and managing for results. According to MAPA reports ([optional link 14](#)), the use of inappropriate tools and the failure to set targets undermines activities focused on results and processes that need improvement.
- 1.17 **Climate change.** There is a link between climate change and agricultural health, and interventions in this area are an important adaptation (Forman et al., 2008) and mitigation strategy (Stoot et al., 2010). Increases in temperature and changes in relative humidity cause changes in habitat that influence the emergence and spread

³ The flies per trap per day (FTD) index measures the density of captured flies and is revised twice monthly.

of plant and animal pathogens, requiring control strategies under changing environmental conditions (INIA, 2018). The main concern is the spread of pests and diseases to new areas (Cifuentes and Meza, 2008), with possible effects on access to international markets and increased inspection and treatment costs. The greenhouse-gas (GHG) emissions reduction achievable through reduced and more efficient use of pesticides stands out, given that those used to tackle the carambola fruit fly are particularly carbon intensive (Lal, 2004). Moreover, evidence shows that improved animal health raises productivity and reduces livestock's carbon footprint (Kenyon et al., 2013; Stott et al., 2010). The expansion of agricultural activities into forest areas has been the main source of GHG emissions in Brazil (FAO, 2016; Gouvello, 2010; Rivero et al., 2009). Increased productivity associated with lower rates of diseases such as FMD and CSF therefore helps reduce GHG emissions and ease the pressure on forest areas (MAPA, 2010; Embrapa, 2018, Arias et al., 2017).

- 1.18 In short, the operation is aligned with the MAPA's strategic priorities, as formulated in its PDA. It will contribute via its five strategic pillars, which seek to modernize the SDA, cut red tape, strengthen the regulatory framework, generate knowledge and strategic intelligence, and implement priority technical projects, ensuring agricultural health services are sustainable by means of strong monitoring and evaluation systems. The aim of focusing on these priorities is to strengthen agricultural health to increase access to international markets and raise agricultural productivity (paragraph 1.12).
- 1.19 **Theory of change.** The program's [theory of change](#) is based on the same challenges identified by the MAPA, including restrictions on access to external markets and the potential loss of productivity caused by the existence of high economic impact diseases and pests (which also give rise to high control and eradication costs) and the low efficiency of the services monitoring and controlling the health of imports and exports. Institutional shortcomings in these services, such as low professional specialization and high turnover of technical staff, scant investment in research, and failure to use risk analysis in its operations, makes the MAPA unable to perform its agricultural health responsibilities effectively.
- 1.20 Against this backdrop, Components 1 and 2 support the expansion of existing animal and plant health programs and initiatives to improve the efficiency of the main agricultural health services. For Component 1, the automation of agricultural health service processes (laboratories, Vigiaagro, inspection, records and authorizations, good practices) will reduce processing times and increase service efficiency. For Component 2, priority disease and pest (carambola fruit fly, FMD, and CSF) control and eradication measures will enable current health status to be maintained and expanded. Component 3 will support institutional changes in the management of agricultural health, strengthening human resource capacities, and funding research into agricultural health. By means of studies and research, training in priority competencies, and studies to evaluate a technology park as a means of scientific integration between various institutions, it is anticipated that the availability and dissemination of relevant information and competencies for more efficient agricultural health services will be enhanced. Lastly, Component 4 supports the continuous monitoring of activities and managing for results. Over the long term, these improvements aim to raise the quality, reliability, and efficiency of international trade in Brazilian agricultural produce.

- 1.21 **The Bank's experience.** Between 2002 and 2014 the IDB approved 17 investment loans to strengthen agricultural health and food safety systems in the region for US\$359 million, approximately 10% of the total sector portfolio (OVE, 2015). Drawing on these operations, those recently approved (Peru 4457/OC-PE, Uruguay 3800/OC-UR, Bolivia 3797/BL-BO, Guyana 3798/BL-GY, and Mexico 3864/OC-ME, totaling US\$292 million), and the conclusions and recommendations of OVE (2015), the main lessons learned and how they have been incorporated into the design of the proposed operation are included in Table 1.

Table 1. Incorporation of lessons learned

Lesson learned	Reflected in program design
1. The decisions of the health services should be independent and based on purely scientific grounds, due to the nature of the threats they have to respond to and the need for credibility, locally and internationally.	The program aims to enhance the scientific basis of the SDA to improve its management and decision-making capacity.
2. Health control institutions require ongoing programs to update and train their officials.	Measures are envisaged to improve the technical competencies of SDA staff.
3. The private sector's participation is essential to bolster the success of health programs.	The private sector will be involved in the design of automation processes, disease control, and research and development. No private goods will be financed.
4. Use of results indicators more readily attributable to projects.	The results matrix incorporates this lesson, particularly for the indicators linked to disbursements.
5. It is important to focus efforts to avoid diluting resources.	The program: (i) focuses on results and (ii) supports specific activities within a broad government program (the PDA).

- 1.22 **Strategic alignment.** The operation is consistent with the Update to the Institutional Strategy (UIS) 2010-2020 (document AB-3008) and will contribute to the Corporate Results Framework 2016-2019 (CRF) (document GN-2727-6) through the development challenges of: (i) productivity and innovation, contributing to the indicator of government agencies benefited by projects that strengthen technological and managerial tools to improve public service delivery; and (ii) economic integration, through the indicator of instruments contributing to regional and extra-regional trade. It is also aligned with the following crosscutting themes: (i) climate change and environmental sustainability through the development, transfer, and adoption of innovative technologies and approaches to implement adaptation measures; and (ii) institutional capacity and the rule of law through the strengthening of public agricultural health services. Approximately 17.44% of the operation's resources are invested in climate change adaptation activities, according to the [multilateral development banks' joint methodology for tracking climate finance](#). These resources contribute to the IDB Group's target of increasing the financing of climate-change-related projects to 30% of all operational approvals by the end of 2020.
- 1.23 The operation is consistent with the IDB Country Strategy with Brazil (2016-2018) (document GN-2850), in the dialogue on policies and sustainable development of

agriculture and contributes to the implementation approach to reducing regional socioeconomic inequalities, given that the poorest regions (Northeast and North) are those hardest hit by the diseases and pests this program will address. The operation is included in the Update of Annex III of the 2018 Operational Program Report for Brazil (document GN-2915-2). It is also consistent with: the Agriculture and Natural Resources Management Sector Framework Document (document GN-2709-5), which gives priority to increasing the region's agricultural productivity and strengthening the provision of public goods; the Food Security Sector Framework Document (document GN-2825-8), which aims to promote food security by increasing production and productivity; the Integration and Trade Sector Framework Document (document GN-2715-6), which gives priority to integration and foreign trade through improvements to security and dispatch times, and reducing the cost of foreign trade; and with the Integrated Strategy for Climate Change Adaptation and Mitigation, and Sustainable and Renewable Energy (document GN-2609-1) and the Climate Change Sector Framework Document (document GN-2835-3) by promoting increased agricultural productivity by adopting climate change adaptation practices.

B. Objectives, components, and cost

- 1.24 The overall objective of the operation is to help increase agricultural productivity and improve access to domestic and international markets by strengthening the country's agricultural health services. To this end the operation plans to contribute to the implementation of the Government of Brazil's PDA through the components detailed below. The first and second of these components will be financed by the LBR, the third by the technical cooperation loan, and the fourth by the local counterpart. The main beneficiaries are the approximately 14 million agricultural producers and other participants in the production chains supported, together with the country's 210 million consumers.
- 1.25 **Component 1. Improving the efficiency of agricultural health services (IDB: US\$23 million).** The outcome of this component will be improvements in the performance of the SDA's services, as detailed in its subcomponents:
- a. **National Agricultural Laboratories (LANAGRO).** The outcome will be a reduction in: (i) laboratory test times; and (ii) rejection of samples on receipt at the LANAGRO laboratories. Automation of the following key processes will be financed: (i) receipt of samples, laboratory analyses, and delivery of results; (ii) procurement and contracts; (iii) laboratory accreditation; (iv) demand management; and (v) inventory control. The initial focus will be on processes relating to antiparasitic and salmonella tests. In addition, demand for laboratory tests will be organized and prioritized, and the technical/administrative management will be modernized using harmonized quality management systems.
 - b. **International Agricultural Oversight System (Vigiagro).** The outcome will be to shorten average export and import cargo release times at ports. The implementation of a harmonized management system for the international transit of agricultural products (termed the "SIGVIG") will be financed. In particular, work will focus on exports of soybeans and frozen and chilled meat, and imports of fruits (apples) and agricultural inputs (mineral fertilizer and pesticides).

- c. **Improvements to inspection, registration, and authorization services.** This will aim to reduce the average time taken by product inspection, registration, and authorization services by financing the design and automation of services that are currently performed manually or in a semiautomated manner in person. It includes systems for: (i) beverage exports; (ii) imports of animal genetic material and live animals; and (iii) registration of products of animal origin.
- d. **Implementation of regulatory good practices.** The outcome will be a reduction in the average time taken by the SDA to draft and publish regulations and ordinances. The cost of developing and implementing a system for the real-time monitoring of the entire process of drafting, analysis, publication, and implementation of regulatory instruments will be financed.

1.26 **Component 2. Control and eradication of pests and diseases (IDB: US\$137 million).** The objective is to improve the control of high economic impact diseases and pests subject to quarantine, focusing on controlling FMD, CSF, and the carambola fruit fly. A description of the subcomponents and their outcomes is provided below.

- a. **Carambola fruit fly.** The outcome will be to keep the 24 states in which this pest is not currently present free of the carambola fruit fly.⁴ It will finance the costs associated with continuing implementation of the SDA program to control and eradicate the carambola fruit fly and expanding it to strengthen control stations on the border and inside the state of Amapá (the state most affected by the fly). It includes monitoring of traps throughout the country and measures to control and eradicate the fly in areas where it is detected. This subcomponent also includes training technical staff of the institutions involved, and health education campaigns for producers.
- b. **Foot-and-mouth disease (FMD).** The outcome will be to maintain the 27 states of the country free of FMD, with or without vaccination, funding the implementation of the PNEFA, which has a scaled strategy, dividing the country into five groups of states in which achieving FMD-free status without vaccination will be pursued by group. The PNEFA includes: regulation, capacity building at federal and state levels, audits of state veterinary services, and development of action plans for states. These actions are defined by an Action Plan, which is monitored semiannually by the MAPA.
- c. **Classical swine fever (CSF).** The outcome will be an increase in the number of states recognized by the MAPA as CSF-free from 16 at present to 23 in 2023. State-level actions will be financed (incorporated in the action plans indicated in the preceding paragraph), including: (i) activities reports on the state action plans; (ii) approved Quali-SV audit reports on state veterinary services in areas that are both CSF-free and not CSF-free; (iii) approved epidemiological study proposal; (iv) reports on epidemiological studies conducted in states with areas that are not CSF-free; (v) declaration of new

⁴ Eradication in the states of Amapá, Roraima, and Pará is not feasible within the program execution period, particularly as it would require actions in neighboring countries (Guyana and Suriname).

CSF-free areas; (vi) stepping up controls on pig movements; (vii) training of official state veterinary services; and (viii) health education for rural producers.

1.27 **Component 3. Knowledge and innovation for the agricultural health of the future (IDB: US\$35 million).** The objective of this component is to support the implementation of the PDA's Knowledge and Intelligence pillar (paragraph 1.15). The component's strategic and innovation actions will support and complement the activities of Components 1 and 2, including development of technical assistance, capabilities, knowledge and innovation in the agricultural health system, and definition of strategies for agricultural health services to address the future challenges, including the impacts of climate change. Accordingly, the component includes the following subcomponents:

- a. **Modernization of federal agricultural protection.** This will support the process of modernizing the SDA by financing studies to support the following strategic actions: (i) implement a new model of institutional management, with a redefinition of procedure manuals, adjustment or redesign of computerized systems, and training and consulting; (ii) strengthen coordinated joint action by federal, state, and municipal agencies and between these agencies and the sector; and (iii) update and adapt legal and regulatory instruments, matching procedures and teams.
- b. **Competency building.** This will finance: (i) short courses developed with Brazilian and foreign universities; (ii) the "Excellentia" program, with grants for practitioners to undertake specific work at universities, research centers or agricultural health institutions in Brazil or abroad; and (iii) a strictly postgraduate grant program for studies on critical issues for agricultural health.
- c. **Knowledge and intelligence.** This has the aim of aggregating information and knowledge on an ongoing basis by financing the implementation of an integrated plant-health monitoring and information system (Strategic Agricultural Defense Intelligence System (IEDA)) that will manage strategic information to support decision-making, centralizing all the data existing in other automated systems.
- d. **Agricultural health research.** The objective of this subcomponent is to close research gaps related to agricultural health, supporting the development of at least 10 research projects selected on a competitive basis in line with the thematic priorities defined by the SDA. It also includes the financing of grants for strategic agricultural health projects.
- e. **Technology park.** As part of its modernization strategy, the SDA is seeking to promote a model of technology research and development that facilitates an exchange of experience between different sectors (public, private, and academic) and scientific integration to promote innovation in agricultural health. This subcomponent will finance studies to evaluate the viability of promoting the creation of a technology park on the Lanagro campus in Minas Gerais.

1.28 **Component 4. Monitoring, evaluation, and learning (Local: US\$5 million).** This component will generate a monitoring and evaluation system for the program and will build the MAPA's capacity to monitor and evaluate its agricultural health services, contributing to managing for results.

C. Key results indicators

- 1.29 The program's impact will be measured using the following indicators: (i) increase in the number of health agreements with importer countries; and (ii) increased value of meat at the farm.
- 1.30 The outcome indicators to be used for disbursements are: Component 1: (i) processing speed of Lanagro laboratories (in days); (ii) decrease in average import and export cargo release times in ports (in days); (iii) promptness of inspection, registration, and authorization services, which will include: average processing time for beverage exports (in days); and (iv) average time to draft and publish regulatory instructions and ordinances (in days). Component 2: (i) number of states kept without occurrence of Carambola fruit fly; (ii) number of states recognized as being FMD-free with or without vaccination; and (iii) number of states recognized as being CSF-free. The indicators and amounts associated with each are specified in the disbursement matrix ([optional link 5](#)). Additional indicators not associated with disbursements in the Results Matrix (see Annex II) are: (i) average sample rejection by Lanagro; (ii) recognition of states as FMD-free without vaccination; (iii) average processing time for imports of animal genetic material and live animals (in days); (iv) average time to register products of animal origin (in days); (v) improved agricultural protection competencies (level of training in priority competencies), (vi) legal establishment of a Technology Park; (vii) the number of accesses to the intelligence system; and (viii) number of technical studies with results of research projects published or available online.
- 1.31 **Economic analysis.** An [ex ante economic analysis](#) was performed to evaluate the economic viability of the program. The benefits stem from more efficient agricultural health service processes and pest and disease control and are estimated to be: (i) avoided losses in exports of beef and pork products by preserving the country's status as free of high impact diseases such as FMD and CSF; (ii) avoided losses in fruit exports by preventing the expansion of the Carambola fruit fly; and (iii) more efficient agricultural health services. The analysis considered a horizon of 20 years and a discount rate of 12%. The program is considered economically viable with an economic internal rate of return (EIRR) of 32.37% and net present value of US\$223 million. Based on the worst-case scenarios for the subcomponents analyzed, the sensitivity analysis yielded an EIRR of 21%.

II. FINANCING STRUCTURE AND MAIN RISKS

A. Financing instruments

- 2.1 **Rationale for the use of the financing instruments.** This operation will be financed by two investment loan instruments: an LBR and reimbursable technical cooperation funding. The operation meets the requirements for an LBR (document GN-2869-1) as Components 1 and 2: (i) support state programs delivering results through the financing of their expenditure framework (paragraph 1.26); (ii) support changes to government practices incorporating good practices (paragraph 1.25); (iii) promote improved performance of existing government programs by emphasizing their achievement of results (paragraph 1.25); and (iv) promote the use of the executing agency's fiduciary systems (paragraphs 2.7 and 3.10). Moreover, the institutional capacity assessment showed that the MAPA

has appropriate legal powers, governance, and institutional environment, and the necessary institutional, management, technical, and fiduciary (procurement and financial) capacity to ensure the delivery of the results and execute and monitor an LBR (see Annex III). Integrity risk is medium/low, and program actions reduce it by adopting transparent procedures and automating health permit issuance and other agricultural health services.

- 2.2 Component 3 fulfills the requirements for the use of the reimbursable technical cooperation instrument (document GN-2470-2), as it will be focused on supporting institutional changes in the management of agricultural health in Brazil, building the MAPA's institutional capacities and financing research studies into agricultural health. These technical assistance activities are essential to achieving the envisaged outcomes of the LBR in the framework of Components 1 and 2. The LBR instrument is not suited to these investments as they are not related to the simultaneous completion of an outcome but require a substantial flow of finance from the early stages of execution. The proposed financing structure enables the comprehensive financing of the interventions, permitting the achievement of the program objectives.
- 2.3 **Cost.** The total cost of the operation is US\$200 million, of which \$195 million will be financed from the Bank's Ordinary Capital and US\$5 million by the local counterpart. The planned disbursement period is five years. Table 2 itemizes the cost per component.

Table 2. Program costs and financing (US\$ million)

Investment component	IDB	Local	Total	%
C1. Improving the efficiency of agricultural health services	23.00	0.00	23.00	11.50
C2. Control and eradication of pests and diseases	137.00	0.00	137.00	68.50
C3. Knowledge and innovation for the agricultural health of the future	35.00	0.00	35.00	17.50
C4. Monitoring, evaluation, and learning	0.00	5.00	5.00	2.50
Total	195.00	5.00	200.00	100.00

- 2.4 Table 3 presents the disbursement schedule for the Bank financing.

Table 3. Disbursement schedule (as %)

Component	Year 1	Year 2	Year 3	Year 4	Year 5	Total
C1. Improving the efficiency of agricultural health services	3.0	2.8	2.1	2.0	1.9	11.8
C2. Control and eradication of pests and diseases	13.5	14.1	14.2	14.2	14.2	70.3
C3. Knowledge and innovation for the agricultural health of the future	1.2	4.6	4.9	4.0	3.3	17.9
Total	17.7	21.5	21.2	20.2	19.4	100.0

B. Environmental and social risks

- 2.5 Pursuant to Directive B.13 of the Environment and Safeguards Compliance Policy (Operational Policy OP-703) this operation does not require classification, as it is

a loan based on results and its impacts cannot be subject to “ex ante” evaluation. However, no negative environmental or social impacts are envisaged from the implementation of Components 1 and 2, or Component 3, and no physical infrastructure or physical changes to the environment are involved. Lanagro laboratories have an environmental and social management system based on best practices and standards, accredited under ISO standard 17025, which establishes guidelines for documented operating procedures (SOPs) for the management of laboratory and environmental waste. Moreover, depending on its level of biosecurity (BSL3AG), each laboratory has more specific manuals, covering the management of materials, wastes, and rules for hygiene, safety, and employees’ working conditions. The pest and disease eradication and control programs will apply internationally recognized good practices, including the use of integrated control techniques.

- 2.6 In addition, the independent consulting services contracted to verify the results will review the ISO-17025 accreditation, make visits to laboratories to verify that the biosecurity manuals are being applied, and that good practices are being followed in the disease and pest control programs.

C. Fiduciary risks

- 2.7 The results of the ICAP and Program Risk Management (PRM) analysis demonstrated that the executing agency has a low level of fiduciary risk for the execution of the results-driven components (Annex III). The evaluations indicate that the MAPA’s fiduciary systems are backed by a legal framework providing the foundations for sound management of administrative, financial, control, and procurement procedures, in accordance with the principles of transparency, economy, and efficiency.
- 2.8 The medium-level risks identified are: (i) limited experience of the executing agency with IDB policies; and (ii) possible delay in purchase of the software needed for activities in Components 1 and 3. To mitigate the first of these risks, the Inter-American Institute for Cooperation on Agriculture (IICA) will be contracted directly as a specialized executing agency to manage part of the consulting services under Component 3. The IICA offers technical advantages on account of its experience and effective capacity to select and hire consultants familiar with Bank policies and with topics linked to the agrifood sector. This has been demonstrated in the execution of a number of MAPA initiatives and in loans with external resources, including those of the IDB (paragraph 3.11). To mitigate the second risk, the results-based disbursement mechanism will create an incentive to speed up processes, and the IDB will support preparation of the terms of reference.

D. Other project risks and key issues

Table 4. Other identified risks

Taxonomy	Risk	Level	Mitigation
1. Public management and governance	Changes in authorities and technical areas in the MAPA and changes in staff could result in delays in execution of actions, outcomes, and disbursements.	Medium High	Inclusion in the loan contract of the condition precedent to the first disbursement (creation of the program coordinating unit (PCU) and appointment of its members). Dialogue with authorities on key aspects of the program. Training of new authorities and technical staff.
2. Macroeconomic and fiscal sustainability	Continuity of the fiscal situation of the Federal Government and the states, and limitations on the use of the allocated budget may reduce the resources available for agricultural health services, delay execution, achievement of outcomes, and disbursements.	Medium High	Audit of expenses linked to outcomes and return of amounts not applied to outcomes constitute an incentive to avoid budgetary limitations. Dialogue with authorities on key aspects of the program and functioning of the LBR.
3. Macroeconomic and fiscal sustainability	The Brazilian economy is recovering slowly and strong growth is not expected. A drop in economic activity would reduce tax revenues and the budget allocated to agricultural health services.	Medium Low	Audit of expenses linked to outcomes and return of amounts not applied to outcomes constitute an incentive to avoid budgetary limitations. Dialogue with authorities on key aspects of the program and functioning of the LBR.
4. Development	Failures in border checks or an increase in the epidemiological risk from neighboring countries could result in the reintroduction of FMD, delaying achievement of the outcomes.	Medium Low	Component 1 includes measures to strengthen health checks at the borders. Subcomponent 2.2 includes measures to strengthen controls and barriers.
5. Reputation, monitoring, and accountability	Private sector pressures may affect health monitoring and the credibility of health services and the program, resulting in temporary closure of export markets, and delays in achieving outcomes, and in disbursements.	Medium Low	The program includes measures to automate and standardize processes and move formalities online, reducing face-to-face interactions and the scope for discretionary decisions. Studies will support institutional changes in agricultural health services to reduce these problems.

- 2.9 **Sustainability.** The Government of Brazil has been financing its pest and disease control programs for many years. Even in times of deep recession and public spending constraints, these programs have not been affected. Moreover, one of the aims of the institutional reforms being undertaken by the MAPA and of various program activities is to increase efficiency and reduce costs. In addition, the salary costs of technical staff, who are important for the sustainability of all the components, given that they are knowledge intensive, are fixed costs that cannot be subject to budget cuts.

III. IMPLEMENTATION AND MANAGEMENT PLAN

A. Summary of implementation arrangements

- 3.1 The borrower for the operation will be the Federative Republic of Brazil. The program executing agency will be the MAPA through its Agricultural Protection Secretariat (SDA). A PCU will be created within the SDA's structure, which will be the MAPA's point of contact for the IDB. It will also be responsible for coordinating with all the MAPA areas executing program activities, giving them guidance on the program's operational, administrative, and financial standards and procedures, preparing the reports envisaged under the contract, and proposing measures for improving execution and achievement of the outcomes, etc. The actions in Components 1 and 2 will be the responsibility of six SDA divisions or general coordination units, while the CGOP will be responsible for Components 3 and 4. The [program Operating Regulations](#) set out the details of the roles of the PCU and the various SDA areas.
- 3.2 For execution of Component 3, the PCU will be supported by the services of the IICA, as a specialized agency, for the contracting of consulting services, and it will have the technical cooperation of the CNPq for the funding of strategic research projects and postgraduate grants (paragraph 3.12). The eligibility criteria for the research projects and grants will be set out in the program's Operating Regulations. The remainder of the component, which includes improving the SDA's information systems, will be executed directly by the MAPA.
- 3.3 The SDA's Executive Management Committee, comprising its departmental heads, will act as the program's Steering Committee, providing strategic guidance, facilitating coordination between the PCU and the various MAPA units, approving the annual work plan (AWP), monitoring progress of execution and achievement of program targets, and proposing measures to streamline execution.
- 3.4 The PCU will have a core team comprising a coordinator and an executive manager, together with the technical and administrative staff necessary for execution coordination tasks. It will be supported by other MAPA units on administrative, financial, accounting, procurement, and auditing matters. **Setting up the PCU and appointing its members will be a special contractual condition precedent to the first disbursement of the proceeds of the loan based on results (Components 1 and 2) and to the first disbursement of the technical cooperation loan (Component 3).** This condition is considered essential for guaranteeing to the Bank that the executing agency will be ready with an appropriate team to start execution.

- 3.5 **External results verification.** The loan based on results envisages verification independent of the IDB and the MAPA/SDA to evaluate fulfillment of the outcomes as a requirement for processing disbursements.
- 3.6 The MAPA will contract individual consulting services for this purpose. [Optional link 5](#) presents the protocol for verification of each disbursement indicator. The consultant's report should: (i) provide an opinion on the accuracy, reliability, validity, and consistency of the information on the outcomes; (ii) determine the value of the outcome indicators; (iii) make recommendations to enhance program execution and address deviations from achievement of results in advance. **Under the terms of reference agreed in advance with the Bank, the contracting of consulting services for external results verification will be a special condition precedent to the first disbursement of loan proceeds for Components 1 and 2,** as is envisaged in the policy on loans based on results (document GN-2869-1).
- 3.7 **Disbursement mechanism.** For Components 1 and 2, the MAPA will prepare a progress report on program execution and achievement of the results indicators used for annual disbursements (paragraph 1.30), and this report will be sent for external results verification. The independent external evaluator will verify that the results have been achieved in accordance with the objectives mentioned (paragraph 3.6) and by the deadlines set in the terms of reference. Once achievement of the disbursement results has been verified, the MAPA will send the disbursement request to the IDB, which will make the corresponding disbursement when the results of the external verification show that the value of the indicator in question is equal to or greater than the established target. If below the target, the disbursement will be proportional to the extent to which the target has been met. Unused balances may be rescheduled for subsequent disbursements.
- 3.8 For Component 3, disbursements will take the form of advances of funds based on semiannual financing plans. For the disbursement of advances subsequent to the first, the IDB will require justification of at least 80% of the cumulative balance pending justification.
- 3.9 **Program Operating Regulations.** The program [Operating Regulations](#) will describe the execution arrangements for the operation, including: (i) the program's organizational structure; (ii) technical and operational arrangements for program execution; (iii) arrangements for scheduling, monitoring, and evaluation of results; (iv) operating procedures; and (v) a detailed description of the results indicators, particularly those relating to disbursements and verification protocols. **The approval and entry into force of the program Operating Regulations, under the terms agreed with the Bank, will be a special contractual condition precedent to the first disbursement of the loan based on results (Components 1 and 2) and the first disbursement of the technical cooperation loan (Component 3).** The Bank's experience in the region has shown that approval of the program Operating Regulations before the first disbursement contributes to the internal organization of the executing agency for program execution.
- 3.10 **Procurement of works, goods and nonconsulting services, and consulting services.** The execution of Components 1 and 2 envisages the use of executing agency systems for procurement, in accordance with requirements for loans based on results (document GN-2869-1). For Component 3, procurement financed with

IDB funds will comply with the “Policies for the Procurement of Works and Goods Financed by the IDB” (document GN-2349-9) and “Policies for the Selection and Contracting of Consultants Financed by the IDB” (document GN-2350-9). The [Procurement Plan](#) contains details of procurement during program execution in relation to Component 3 and the procedures applied by the IDB for its review. The independent verification entity will be selected in accordance with the Policies for the Selection and Contracting of Consultants Financed by the IDB (document GN-2350-9).

- 3.11 **Direct contracting.** The IICA will be contracted directly as a specialized agency to manage procurement and contracting of approximately US\$20 million under Component 3. The main functions of the IICA will be: (i) supporting consultant selection; and (ii) contract management. This contracting is justified under paragraph 3.10(d) of the Policies for the Selection and Contracting of Consultants (document GN-2350-9), which provides for direct contracting “when only one firm is qualified or has experience of exceptional worth for the assignment” (see Annex III, paragraph 5.4).
- 3.12 **Funding of grants and research projects.** Component 3 envisages the funding of strategic research projects and postgraduate grants (US\$6 million). These activities will be carried out through the CNPq, an agency with its own legal status that is linked to the Ministry of Science, Technology, Innovation, and Communication (MCTIC). The CNPq’s main duties are to promote scientific and technology research and promote the training of Brazilian researchers (see Annex III). The MAPA and the CNPq will sign a cooperation agreement to establish the institutions’ roles and responsibilities. The eligibility and selection criteria for research projects and grants will be set out in the program’s Operating Regulations. To formalize the roles of both parties and minimize risks in financial and technical management, the signing and entry into force of the technical cooperation agreement between the MAPA and the CNPq for the execution of research activities and the award of postgraduate grants will be a special contractual condition for execution of the financing under Component 3.
- 3.13 **Retroactive financing and recognition of expenditures.** The Bank may retroactively finance, as a charge against the loan proceeds, eligible expenses incurred by the borrower prior to the loan approval date, for the procurement of consulting services and studies directly related to Component 3 up to the amount of US\$7 million (20%), provided that requirements substantially analogous to those set forth in the loan contract have been fulfilled. Similarly, under Component 4, the Bank may recognize expenses against the local contribution up to US\$500,000 (10%) for consultants and the purchase of software. These expenses must have been incurred no earlier than 6 June 2018 (project profile approval date), and under no circumstances may expenses incurred more than 18 months before the date of loan approval by the Bank’s Board of Executive Directors be included.
- 3.14 **Audited financial statements (AFSs).** During program execution, AFSs will be submitted annually no later than 120 days after the end of each fiscal period, or the date of the last disbursement in the case of final AFSs. The program’s external audit will be carried out by the Office of the Comptroller General (CGU), as the body responsible for the external oversight of federal government projects executed with

external financing. For Components 1 and 2, the final AFSs will include an analysis of possible differences between the actual program costs and the sums disbursed.

B. Summary of arrangements for monitoring results

- 3.15 **Monitoring and Evaluation Plan.** The Results Matrix indicators will be used for monitoring, with the following instruments: AWP, multiyear execution plan, procurement plan, semiannual progress reports, and supervision visits. The MAPA will prepare and send monitoring reports to the Bank no later than 60 days after the end of each six-month period. These reports will focus on the fulfillment of results and output indicators, identify issues encountered, and describe corrective measures adopted. Additionally, for Component 3 the MAPA will submit, to the Bank's satisfaction, the AWP for the following year, no later than the fourth quarter of each year.
- 3.16 The executing agency will submit the following evaluations to the Bank, in accordance with the scope agreed with the Bank: (i) midterm evaluation, once 50% of the loan proceeds are disbursed and justified or after 30 months of execution, whichever occurs first; and (ii) final evaluation, no later than 90 days after the date of the last disbursement.
- 3.17 The [Monitoring and Evaluation Plan](#) includes the description of the impact evaluation methodology, together with the indicators to be evaluated, the parties responsible for gathering the information, the schedule, and budget. The plan proposes a quasiexperimental evaluation utilizing the gradual expansion of PNEFA activities funded by the program, in order to measure increases in the value of annual agricultural output at farm level. The methodology that will be used for this purpose is a combination of statistical pairing and differences in differences.

Development Effectiveness Matrix		
Summary		BR-L1496
I. Corporate and Country Priorities		
1. IDB Development Objectives		Yes
Development Challenges & Cross-cutting Themes	-Productivity and Innovation -Economic Integration -Climate Change and Environmental Sustainability -Institutional Capacity and the Rule of Law	
Country Development Results Indicators	-Public agencies' processing times of international trade of goods and services * -Beneficiaries of improved management and sustainable use of natural capital (#)* -Regional, sub-regional and extra-regional integration agreements and cooperation initiatives supported (#)* -Government agencies benefited by projects that strengthen technological and managerial tools to improve public service delivery (#)*	
2. Country Development Objectives		Yes
Country Strategy Results Matrix	GN-2850	Dialogue areas on agricultural policies and contribution to the implementation focus on the reduction of regional socioeconomic inequalities.
	GN-2915-2	The operation is included in the Annex III Update on the 2018 Operations Program in Brazil
Relevance of this project to country development challenges (If not aligned to country strategy or country program)		
II. Development Outcomes - Evaluability		Evaluable
3. Evidence-based Assessment & Solution		8.2
3.1 Program Diagnosis		2.4
3.2 Proposed Interventions or Solutions		4.0
3.3 Results Matrix Quality		1.8
4. Ex ante Economic Analysis		10.0
4.1 Program has an ERR/NPV, or key outcomes identified for CEA		3.0
4.2 Identified and Quantified Benefits and Costs		3.0
4.3 Reasonable Assumptions		1.0
4.4 Sensitivity Analysis		2.0
4.5 Consistency with results matrix		1.0
5. Monitoring and Evaluation		9.3
5.1 Monitoring Mechanisms		2.5
5.2 Evaluation Plan		6.8
III. Risks & Mitigation Monitoring Matrix		
Overall risks rate = magnitude of risks*likelihood		Medium
Identified risks have been rated for magnitude and likelihood		Yes
Mitigation measures have been identified for major risks		Yes
Mitigation measures have indicators for tracking their implementation		Yes
Environmental & social risk classification		B.13
IV. IDB's Role - Additionality		
The project relies on the use of country systems		
Fiduciary (VPC/FMP Criteria)	Yes	Financial Management: Budget, Treasury, Accounting and Reporting, External Control, Internal Audit. Procurement: Information System, Price Comparison, Contracting Individual Consultant, National Public Bidding.
	Yes	Strategic Planning National System, Monitoring and Evaluation National System, Statistics National System, Environmental Assessment National System.
The IDB's involvement promotes additional improvements of the intended beneficiaries and/or public sector entity in the following dimensions:		
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		

Note: (*) Indicates contribution to the corresponding CRF's Country Development Results Indicator.

The general objective of the operation is to contribute to the increase of agricultural productivity and access to national and international markets through the strengthening of the Agricultural Health Services (SSA) of the country. The program is structured financially through the use of the Results Based Loan (RBL) instrument to finance Component I and II and the Technical Cooperation instrument to finance Component III. The diagnosis of the current situation of the health services as well as the control and eradication of pests and diseases is solid and based on evidence. The proposed interventions are aimed at improving the efficiency in the provision of SSA and maintaining or expanding the achievements of control and eradication of pests and priority diseases. A clear and well-supported Theory of Change anchors the disbursements of the component I and II under the RBL instrument. The indicators of the results matrix that condition the disbursements of the RBL are of results, meet SMART criteria, and with targets and means and protocols for verification.

The economic analysis is based on quantifying the benefits derived from the greater efficiency in the processes of SSA and the control of pests and diseases. They are estimated as: (i) avoided losses in exports of bovine and porcine products due to maintaining the status of the country free of high impact diseases such as foot and mouth disease and swine fever; (ii) avoided losses in fruit exports due to preventing the expansion of the carambola fly; and (iii) greater efficiency in the SSA.

The Monitoring Plan meets the requirements for a RBL. The evaluation plan proposes a quasi-experimental evaluation that takes advantage of the gradual expansion of National Program for the Eradication of Foot and Mouth Disease (PNEFA) activities financed by the program, in order to measure increases in the value of annual livestock production at the farm level. The methodology that will be used for this purpose is a combination of matching and differences in differences.

RESULTS MATRIX

Project objective:	Help increase agricultural productivity and improve access to domestic and international markets by strengthening the country's agricultural health services.
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EXPECTED IMPACT

Indicators	Unit of measure	Baseline		Project end		Means of verification	Remarks
		Value	Year	Value	Year		
I.1 Health agreements with importer countries begun or expanded as a result of achieving FMD-free status without vaccination	Number of agreements	0	2018	4	2023	SRI/MAPA reports	New agreements between Rondônia, Acre, and Pará and other countries
I.2 Increased value of meat at the farm	US\$/kg/year	2.53	2017	2.72	2023	Impact assessment	Evaluation methodology envisages comparison with control group. See Evaluation Plan .

EXPECTED OUTCOMES

Expected outcomes	Unit of measure	Baseline		2019	2020	2021	2022	2023	Project end	Means of verification	Indicator linked to disbursements	Remarks
		Value	Year									
R1.1 Processing speed of Lanagro laboratories	% of tests performed within standard time (15 days)	70	2017	73	75	80	85	90	90	LIMS report systems	YES	Tests selected: (i) Antiparasitic 1: (ii) Salmonella (PRP)
R1.2 Performance of Lanagro laboratories	% rejection of samples upon receipt by laboratories	4.0	2017	4.0	4.0	3.5	3.0	3.0	3.0		NO	
R1.3 Shortening average import and export cargo release times in ports	Average cargo release time (days)	4.3	2017	4.3	4.1	3.9	3.6	3.4	3.4	VIGIAGRO-SIGVIG report	YES	Measured for: (i) exports: frozen and chilled meat; soy (ii) imports: apples, mineral fertilizers; pesticides

Expected outcomes	Unit of measure	Baseline		2019	2020	2021	2022	2023	Project end	Means of verification	Indicator linked to disbursements	Remarks
		Value	Year									
R1.4 Promptness of inspection, registration, and authorization services	Average processing time for beverage exports (days)	45	2017	30	25	20	15	15	15	Reports generated by DIPOV and SIGSIF systems	YES	
	Average processing time for imports of animal genetic material and live animals (days)	5	2017	5	5	5	2	1	1		NO	
	Average processing time for registration of products of animal origin (days)	90	2017	90	80	70	60	40	40		NO	
R1.5 Performance in drafting and publication of regulatory instruments	Average time to draft and publish regulatory instructions and ordinances (days)	360	2017	360	320	290	270	260	260	SISMAN statistics	YES	
R2.1 States without occurrence of carambola fruit fly	Number of states	24	2018	24	24	24	24	24	24	SDA reports	YES	
R2.2 States recognized as FMD-free without vaccination	Number of states	1	2018	1	1	3	6	14	14	Declaration of recognition by the Brazilian Government	NO	
R2.3 States recognized as FMD-free with or without vaccination	Number of states	27	2018	27	27	27	27	27	27		YES	
R2.4 Number of states recognized as being CSF-free	Number of states	16	2017	16	16	16	18	23	23		YES	

Expected outcomes	Unit of measure	Baseline		2019	2020	2021	2022	2023	Project end	Means of verification	Indicator linked to disbursements	Remarks
		Value	Year									
R3.1 Improved agricultural protection competencies	Level of training in priority competencies	10	2017	10	20	30	40	50	50	ENAGRO training panel	NO	See content construction in Annex I of the Monitoring Plan
R3.2 Technology Park legally established	Legal instrument of establishment approved	0	2017	0	0	0	0	1	1	Publication in Official Gazette	NO	
R3.3 Number of accesses to intelligence system	Number of accesses	0	2018	0	0	0	0	500	500	Intelligence system (CGIE/SDA)	NO	
R3.4 Technical studies with results of research projects published or available online	Number of papers and technical reports	0	2018	0	1	2	4	3	10	Publication of reports (CGOP/SDA)	NO	

DISBURSEMENT INDICATORS MATRIX

Indicators	Unit of measure	Year 1		Year 2		Year 3		Year 4		Year 5	
		Target	Amount (US\$)	Target	Amount (US\$)	Target	Amount (US\$)	Target	Amount (US\$)	Target	Amount (US\$)
R1.1 Processing speed of Lanagro laboratories	% of tests performed within standard time (15 days)	73	4,200,000	75	3,300,000	80	2,300,000	85	2,150,000	90	2,050,000
R1.3 Shortening average import and export cargo release times at ports	Average cargo release time (days)	4.4	1,200,000	4.1	1,600,000	4.0	1,400,000	3.7	1,400,000	3.4	1,400,000
R1.4 Promptness of inspection, registration, and authorization services	Average processing time for beverage exports (days)	30	381,000	25	267,400	20	287,400	15	277,400	15	286,800
R1.5 Performance in drafting and publication of regulatory instruments	Average time to draft and publish regulatory instruments and ordinances (days)	360	100,000	320	225,500	290	132,500	270	26,000	260	16,000
R2.1 States kept without occurrence of carambola fruit fly	Number of states	24	4,255,000	24	5,105,000	24	5,195,000	24	5,210,000	24	5,235,000
R2.3 Recognition of states as FMD-free with or without vaccination	Number of states	27	17,200,000	27	17,450,000	27	17,450,000	27	17,450,000	27	17,450,000
R2.4 Recognition of states as CSF-free	Number of states	16	4,850,000	16	5,020,000	16	5,055,000	18	5,055,000	23	5,020,000
TOTAL			32,186,000		32,967,900		31,819,900		31,568,400		31,457,800

OUTPUTS

Outputs	Unit of measure	Baseline		2019	2020	2021	2022	2023	Target	Means of verification	Remarks
		Value	Year								
Component 1. Improving the efficiency of agricultural health services											
P1.1 Key laboratory processes modeled, automated, and operational	Number of processes modeled and automated	0	2018	1	1	1	1	1	5	CGAL/SDA reports	
	Number of operational processes	0	2018	1	1	1	1	1	5		
P1.2 Computerized international goods transit management system implemented and operational	Number of production chains	0	2018	0	7	10	10	0	27	VIGIAGRO reports	
P1.3 Export, import, and registration processes implemented and operational	Number of automated processes	0	2018	1	2	0	0	0	3	CGOP/SDA reports	
	Number of operational processes	0	2018	1	1	1	0	0	3		
P1.4 Regulatory instrument monitoring system (SISMAN) implemented	System implemented	0	2018	0	1	0	0	0	1	SISMAN	
P1.5 SDA regulatory agenda approved	Agenda approved	0	2018	0	1	0	0	0	1	Official record of approval by the MAPA	Approval of regulatory agenda for 2019 and 2020 by the Minister for Agriculture (MAPA)

Outputs	Unit of measure	Baseline		2019	2020	2021	2022	2023	Target	Means of verification	Remarks
		Value	Year								
Component 2. Control and eradication of pests and diseases											
P2.1 Carambola fruit fly control and monitoring measures implemented	Surveillance traps installed countrywide	7,774	2017	7,774	7,774	7,774	7,774	7,774	7,774	Reports prepared by DSV	
P2.2 New quarantine inspection posts implemented in Amapá	Number of posts	0	2018	0	1	1	1	0	3	Reports prepared by DSV	
P2.3 Audits of state veterinary services by the MAPA	Number of audits	0	2017	9	9	9	9	9	45	Reports prepared by DSA	Audits envision measures for FMD and CSF.
P2.4 Activities of state agricultural health action plans underway or completed	Number of states	0	2017	27	27	27	27	27	27	Reports prepared by DSA	Action plans envision activities for FMD and CSF.
Component 3. Knowledge and innovation for the agricultural health of the future											
P3.1 Studies on modernization of agricultural protection drafted	Number of studies	0	2018	0	1	2	4	3	10	GAB/SDA reports	
P3.2 Competency management system developed	Learning routes manual prepared	0	2018	0	1	0	0	0	1	CGOP/SDA reports	
	Software and equipment installed	0	2018	0	0	1	0	0	1		

Outputs	Unit of measure	Baseline		2019	2020	2021	2022	2023	Target	Means of verification	Remarks
		Value	Year								
P3.3 SDA competency development programs implemented	Number of staff completing the <i>Excellentia</i> program	0	2018	3	10	20	10	7	50	CGOP/SDA reports	
	Number of short courses	0	2018	10	20	20	30	20	100		
	Number of people trained on the postgraduate program	0	2018	0	0	2	3	2	7		
P3.4 Studies to develop the model of strategic intelligence in agricultural protection (IEDA) prepared	Number of Studies	0	2018	1	1	2	0	0	4	CGIE/SDA reports	
P3.5 IEDA automated system implemented	System implemented	0	2018	0	0	0	0	1	1	CGIE/SDA reports	Software, IT hardware, information systems
P3.6 Research projects carried out	Number of projects	0	2018	0	0	0	4	6	10	CGOP/SDA report	
P3.7 Agricultural health grants developed	Number of people	0	2018	0	0	3	5	5	13	CGOP/SDA report	
P3.8 Technology park proposal developed	Studies	0	2018	0	2	2	2	1	7	CGOP/SDA report	
	Legal instrument of establishment submitted	0	2018	0	0	0	0	1	1	Legal instrument submitted (CGOP/SDA)	

Component 4. Monitoring, evaluation, and learning											
P4.1 PRODEFESA model of monitoring, evaluation, and lessons learned established and operational	Model established and operational	0	2018	1	0	0	0	0	1	CGOP/SDA supporting documents	
P4.2 SDA management model established and operational	Model established and operational	0	2018	0	0	0	0	1	1		

FIDUCIARY AGREEMENTS AND REQUIREMENTS

Country:	Brazil
Project:	BR-L1496 - Program to Modernize and Strengthen Agricultural Health and Food Safety Services (PRODEFESA)
Executing agencies:	Federative Republic of Brazil, through the Ministry of Agriculture, Livestock, and Supply (MAPA)
Fiduciary team:	Edwin Tachlian-Degras and Carlos Carpizo (FMP/CBR)

I. EXECUTIVE SUMMARY

- 1.1 The institutional evaluation for the program's fiduciary management was carried out based on: (i) the country's current fiduciary context; (ii) the results of the evaluation of the main fiduciary risks - PRM; (iii) assessment of institutional capacity (ICAP); and (iv) meetings between the IDB and MAPA teams. The fiduciary agreements for the financial and procurement management during execution were drawn up based on this analysis.
- 1.2 The operation is an IDB loan of US\$195 million, including two investment loan instruments: (i) US\$160 million in a loan based on results to finance Components 1 and 2; and (ii) US\$35 million in a technical cooperation loan to finance Component 3. Component 4 will be financed exclusively from the local contribution.
- 1.3 Components 1 and 2 will use country systems for financial management and the executing agency's procurement systems for procurement. In Component 3, the Bank's policies will be applied for the procurement of goods and works, and for the selection and contracting of consulting services (documents GN-2349-9 and GN-2350-9), and country systems will be used for their financial management.

II. THE EXECUTING AGENCY'S FIDUCIARY CONTEXT

- 2.1 The country has fiduciary systems which have developed significantly in recent years in all areas of federal, state, and municipal public administration, and which allow good management of administrative, financial, and procurement processes, generally complying with the principles of transparency, economy, and efficiency.
- 2.2 The MAPA will be responsible for program implementation, through its Agricultural Protection Secretariat (SDA). A PCU will therefore be set up within the SDA's structure. The SDA's Executive Management Committee (CEG), comprising all the department heads, will act as the program's steering committee.

III. FIDUCIARY RISK EVALUATION AND MITIGATION ACTIONS

- 3.1 The results of the analyses performed (ICAP and PRM) demonstrated that the executing agency has a low level of fiduciary risk for the execution of the results-based components. The evaluations indicate that the MAPA's fiduciary systems are backed by a legal framework providing the foundation for sound management of administrative, financial, control, and procurement procedures, in compliance with the principles of transparency, economy, and efficiency.
- 3.2 For the loan based on results modality, the executing agency should have sufficient cashflow to cover program expenses. This will necessitate adequate financial planning to ensure timely and sufficient annual budgetary allocation from the Government of Brazil over the disbursement period for Components 1 and 2.
- 3.3 The medium-level risks identified are: (i) limited experience of the executing agency with IDB policies; and (ii) possible delay in purchase of the software needed for activities in Components 1 and 3. To mitigate the first of these risks, the IICA will be contracted directly as a specialized executing agency to manage part of the consulting services under Component 3 (paragraph 5.4). For the second of these risks, the disbursement mechanism linked to results will create an incentive to speed up processes, and the IDB will support preparation of the terms of reference.

IV. CONSIDERATIONS FOR THE SPECIAL PROVISIONS OF THE LOAN CONTRACT

- 4.1 **Exchange rate for the rendering of accounts (Components 3 and 4).** The exchange rate agreed with the executing agency for accounting for loan advances will be the internalization rate. For purposes of determining the equivalence of the reimbursement of expenses charged to the loan and the equivalence of expenses incurred in local currency charged to the local contribution, the agreed exchange rate will be the exchange rate set by the Central Bank of Brazil on the day prior to the date of submission to the IDB of the disbursement request.
- 4.2 **Audited financial statements (AFSs).** During program execution, AFSs will be submitted annually no later than 120 days after the end of each fiscal period or the date of the last disbursement, in the case of final AFSs. The external audit will be carried out by the CGU, as the body responsible for the external oversight of Federal Government projects executed with external financing. For Components 1 and 2, the final AFSs will include an analysis of possible differences between the real program costs and the sums disbursed.
- 4.3 **Disbursements and cash flow.** For Components 1 and 2, disbursements will be made based on the disbursement matrix, following independent verification of the individual results achieved. For Component 3, disbursements will take the form of funds advances based on semiannual financing plans. For advances subsequent to the first, the IDB will require justification of at least 80% of the cumulative balance pending justification.

V. AGREEMENTS AND REQUIREMENTS FOR PROCUREMENT EXECUTION

- 5.1 Execution of Components 1 and 2 will use the executing agency's procurement systems as the IDB's evaluation confirmed them to be compatible with its procurement practices and principles. They will be used for the procurement of goods, consulting (firms and individuals) and nonconsulting services. The executing agency will incorporate mechanisms to prevent prohibited practices and will verify that suppliers are not on the list of firms and individuals subject to sanctions, as set out in the program Operating Regulations.
- 5.2 Procurement for Component 3 will comply with Bank procurement policies (documents GN-2349-9 and GN-2350-9), taking the following into account:
- a. **Procurement of works, goods, and nonconsulting services:**¹ Procurement subject to international competitive bidding (ICB) will be executed using the Bank's standard bidding documents (SBD). The sector specialist/project team leader will be responsible for the IDB review/approval of the technical specifications.
 - b. **Selection and contracting of consultants:** Consulting services, regardless of amount, will be contracted using the Bank's standard request for proposals document. The project's sector specialist will be responsible for the IDB review/approval of the terms of reference for contracting consulting services.
 - c. **Selection of individual consultants:** Contracting will be based on comparing at least three candidates' qualifications for the work. The sector specialist is responsible for review/approval of the terms of reference for the IDB.
 - d. **Use of country systems:** For the procurement of common goods or services, the Bank will accept the use of electronic reverse auction systems up to the amount set for the use of shopping for common goods (for reference, US\$5 million) in the ComprasNet system of the Federal Government procurement portal, or any system or subsystem subsequently approved. The operation's procurement plan and its updates will state that procurement will be executed using approved country systems.
 - e. **Thresholds:** The thresholds for procurement in Component 3 determining the use of international competitive bidding and the inclusion of international consultants on the shortlist will be made available to the executing agency online at www.iadb.org/procurement. The selection method will be determined on the basis of the complexity and characteristics of the procurement, which will be reflected in the procurement plan approved by the Bank.
- 5.3 In Component 3, the selection and contracting of consultants to verify the results in the results-based components will follow the Bank's procurement policies and procedures. Results verification will be subject to the Bank's satisfaction, in accordance with the policy on loans based on results (document GN-2869-1).

¹ Policies for the Procurement of Goods and Works Financed by the Inter-American Development Bank (document GN-2349-9) paragraph 1.1. Nonconsulting services will be treated in the same way as goods.

A. Direct contracting

- 5.4 The IICA will be contracted directly as a specialized agency to manage the consulting services in Component 3, at a cost of 5% of the resources effectively spent on this procurement. The main functions of the IICA will be: (i) supporting consultant selection; and (ii) contract management. This contracting is justified under paragraph 3.10(d) of the Policies for the Selection and Contracting of Consultants Financed by the IDB (document GN-2350-9), which states that direct contracting is justified “when only one firm is qualified or has experience of exceptional worth for the assignment.” The IICA has technical advantages, including its extensive management experience and its effective capacity for the selection and contracting of consultants on topics linked to the agrifood sector and with Bank procurement policies, as demonstrated by its support for the execution of several MAPA initiatives and loans with external resources, including Bank finance (1595/OC-BR).² In accordance with Bank policies, the IICA will follow all the IDB procurement and financial management procedures included in the contract signed between the MAPA and IICA. The approval of direct contracting of the IICA is therefore requested of the Board of Executive Directors.

B. Funding of grants and research projects

- 5.5 Component 3 includes the funding of strategic research projects and grants. These activities will be carried out through the CNPq, the MCTIC agency whose main tasks are to promote scientific and technology research and support the training of Brazilian researchers. The executing agency and the CNPq will sign a cooperation agreement to establish the responsibilities and roles of the institutions involved in Component 3. The CNPq will not be paid by the MAPA for this technical cooperation and support. The private beneficiaries of this funding will apply procurement procedures in line with private sector practices. In view of the low value of the procurement, the private sector beneficiaries will use procedures normally used for public procurement in accordance with paragraph 3.3 of document GN-2349-9. The eligibility and selection criteria, and provisions on prohibited practices will be set out in the program Operating Regulations.

C. Retroactive financing and recognition of expenditures

- 5.6 The Bank may retroactively finance, as a charge against the loan proceeds, eligible expenses incurred by the borrower prior to the loan approval date, for the procurement of consulting services and studies directly related to Component 3 up to the sum of US\$7 million (20%), provided that requirements substantially analogous to those set forth in the loan contract have been met. Similarly, under Component 4, the Bank may recognize expenses against the local contribution of up to US\$500,000 (10%) for consulting services and the purchase of software. These expenses will have been incurred no earlier than 6 June 2018 (project profile approval date). Under no circumstances may expenses incurred more than 18 months before the date of loan approval by the Bank’s Board of Executive Directors be included.

² The Bank conducted an institutional assessment of the IICA in 2015, concluding that it presents an adequate level of development in terms of procurement and financial management.

D. Procurement supervision in Component 3

- 5.7 According to the level of fiduciary risk identified for the program, the supervision method will be ex post, and reviews will be carried out as established in the [Procurement Plan](#). Ex post reviews will be conducted annually in accordance with the project's supervision plan.
- 5.8 When the country system is used for procurement, the country system will also be used for supervision.

E. Records and files

- 5.9 Through the PCU, the MAPA will be responsible for maintaining the supporting documentation and files on procurement processes and all supporting documents for payments made using program proceeds. Records are to be kept using the established procedures.

VI. FINANCIAL MANAGEMENT

- 6.1 **Programming and budget.** The SDA will prepare the annual program and budget in coordination with the MAPA General Budget Execution and Finance Coordination Unit. The annual proposed budget allocated to the program will be incorporated in the general Union budget and be reflected in the Federal Government's Integrated Financial Management System (SIAFI).
- 6.2 **Accounting and financial information systems.** The SDA will use the SIAFI for program budget execution, financial execution, and accounting records. The SIAFI allows the financial reports required by the IDB for disbursement requests and rendering of accounts for Components 3 and 4.
- 6.3 **Disbursements and cash flow.** The National Treasury Master Account will be used to receive IDB disbursements and make payments for program activities. This account is managed by the Ministry of Finance through the National Treasury Secretariat.
- 6.4 **For Components 1 and 2,** disbursements will be made based on the program's disbursement matrix, following independent verification of the individual results achieved. Disbursements for these components will be transferred directly to the National Treasury.
- 6.5 **For Component 3,** disbursements will take the form of advances of funds based on semiannual financial plans. For the disbursement of advances subsequent to the first, the Bank will require justification of at least 80% of the cumulative balance pending justification. The funds will be disbursed to the program through the Master Treasury Account, in which a specific subaccount will be opened in order to manage these resources.
- 6.6 **Internal control.** The Ministry of Transparency and the CGU through the Federal Secretariat for Internal Control (SFC) will be responsible for heading and implementing the Federal Government's internal control system.
- 6.7 The MAPA has a special internal control advisory unit responsible for advising and supporting the Ministry's management units on compliance with the internal control guidelines and directives established by the CGU. The MAPA's internal audit reports issued by the CGU will be available on its institutional website.

- 6.8 **External control.** External auditing of the program will be carried out by the CGU, which is mandated to monitor Federal Government projects financed with external borrowing. The CGU has sufficient capacity to carry out quality, timely external audit work.
- 6.9 The annual external audits will be performed based on the terms of reference agreed in advance with the Bank, in line with International Standards on Auditing. The terms of reference will establish the specific audit procedures for components with results-based disbursements.
- 6.10 For the accounting records of the actual costs of components disbursed based on results (Components 1 and 2) and for annual preparation of the AFSs, the exchange rate agreed to convert expenses incurred in local currency into U.S. dollars during a given fiscal year will be the annual average of the Central Bank of Brazil's daily purchase exchange rate.
- 6.11 The contracts signed by the MAPA with the IICA and the CNPq will require the activities for which these agencies are responsible to be audited by the CGU as part of the program's annual external audit.

VII. SUPERVISION PLAN

- 7.1 The supervision plan may be modified during program execution according to the risk conditions observed or as a result of additional control requirements decided by the Bank.

Table 1. Supervision plan

Supervision activity	Nature and scope	Frequency	Party responsible	
			Bank	Executing agency
Procurement	Review of works and consulting procurement processes	As stated in the Procurement Plan	Sector and procurement specialist	UGP/MV
	Review of processes for ICB and direct contracting	Throughout the execution period	Sector and procurement specialist	UGP/MV
	Supervision visit	Annual	Sector specialist and fiduciary team	
Financial	Annual audit	Annual	Fiduciary team	CGU
	Review of disbursement requests	Periodic	Fiduciary team	
	Supervision visit	Annual	Sector specialist and fiduciary team	

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

PROPOSED RESOLUTION DE-___/18

Brazil. Loan ___/OC-BR to the Federative Republic of Brazil. Program to Modernize and Strengthen Agricultural Health and Food Safety Services (PRODEFESA)

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 Federative Republic of Brazil, as Borrower, for the purpose of granting it a financing aimed at cooperating in the execution of the Program to Modernize and Strengthen Agricultural Health and Food Safety Services (PRODEFESA). Such financing will be in the amount of up to US\$195,000,000 from the resources 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 ____ 2018)