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PERU

AGRICULTURAL HEALTH AND AGRIFOOD SAFETY DEVELOPMENT PROGRAM PHASE II

(PE-L1229)

SECOND INDIVIDUAL OPERATION UNDER THE CONDITIONAL CREDIT LINE FOR INVESTMENT PROJECTS (CCLIP) FOR THE LONG-TERM INVESTMENT PROGRAM OF THE NATIONAL AGRICULTURAL HEALTH SERVICE

(PE-X1002)

LOAN PROPOSAL

This document was prepared by the project team consisting of Eirivelthon Lima (RND/CBO) and Lina Salazar (CSD/RND), Project Team Co-leaders; Juan de Dios Mattos (RND/CPE); Gonzalo Muñoz (CSD/RND); Yolanda Valle (CSD/RND); Betina Hennig (LEG/SGO); Gabriele Maria del Monte; (FMP/CPE); Andres Suarez Sandoval (FMP/CPE); Alberto Villalba (VPS/ESG); and Elsa Chang (VPS/ESG).

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REQUIRED

1. Multiyear Execution Plan and Annual Work Plan
2. Monitoring and Evaluation Plan
3. Environmental and Social Management Report
4. Procurement Plan

OPTIONAL

1. Bibliographic references
2. Project economic analysis
3. Program Operations Manual
4. Spinosad Technical Evaluation Report
5. Institutional analysis
6. Feasibility study for fruit fly eradication
7. Feasibility study for swine disease eradication
8. Feasibility study for improving the safety of primary food production and processing
9. Planning instrument
10. Itemized program costs, by output

ABBREVIATIONS

AD	Aujeszky's disease
ADD	Acute diarrheal diseases
AGAP	Asociación de Gremios Productores Agrarios del Perú [Association of Agricultural Producers' Guilds of Peru]
AWP	Annual work plan
CCLIP	Conditional credit line for investment projects
CENAGRO	Censo Nacional Agropecuario [National Agricultural Census]
CSF	Classical swine fever
ESMP	Environmental and Social Management Plan
ESMR	Environmental and Social Management Report
FMD	Foot-and-mouth disease
ha	Hectares
INEI	Instituto Nacional de Estadística e Informática [National Statistics Institute]
IRR	Internal rate of return
LIBOR	London interbank offered rate
NPV	Net present value
PED	Porcine epidemic diarrhea
PMU	Program Management Unit
POM	Program Operations Manual
PRRS	Porcine reproductive and respiratory syndrome
SENASA	Servicio Nacional de Sanidad Agraria [National Agricultural Health Service]

PROJECT SUMMARY

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(PE-X1002)

<table>
<tr><th colspan="6">Financial terms and conditions</th></tr>
<tr><td colspan="3" rowspan="2">Borrower: Republic of Peru</td><td colspan="2">Flexible Financing Facility[a]</td></tr>
<tr><td>Amortization period:</td><td>12.7 years</td></tr>
<tr><td colspan="3" rowspan="2">Executing agency: Servicio Nacional de Sanidad Agraria [National Agricultural Health Service] (SENASA)</td><td>Disbursement period:</td><td>5 years</td></tr>
<tr><td>Grace period:</td><td>9.2 years[b]</td></tr>
<tr><td>Source</td><td>Amount (US$)</td><td>%</td><td>Interest rate:</td><td>LIBOR-based</td></tr>
<tr><td>IDB (Ordinary Capital):</td><td>100,000,000</td><td>51.9</td><td>Credit fee:</td><td>[c]</td></tr>
<tr><td rowspan="2">Local:</td><td rowspan="2">92,747,957</td><td rowspan="2">48.1</td><td>Inspection and supervision fee:</td><td>[c]</td></tr>
<tr><td>Weighted average life (WAL):</td><td>11.32 years</td></tr>
<tr><td>Total:</td><td>192,747,957</td><td>100</td><td>Currency of approval:</td><td>United States dollars</td></tr>
<tr><th colspan="6">Project at a Glance</th></tr>
<tr><td colspan="6">Project objective/description: The objective of the CCLIP for the Long-term Investment Program of the National Agricultural Health Service is to make agricultural products more competitive as a way of increasing farmers' incomes and enhancing quality of life for consumers, through the implementation of individual programs for that purpose. This program is the second individual operation under the CCLIP and aims to help boost agricultural output and exports, and to enhance agrifood safety, by improving the country's sanitary and phytosanitary levels.</td></tr>
<tr><td colspan="6">Special contractual conditions precedent to the first disbursement: The executing agency, through the Program Management Unit (PMU), will present evidence that: (i) the Program Operations Manual, to include the Environmental and Social Management Plan (ESMP), has been approved by SENASA and is in force, in accordance with terms previously agreed with the Bank; (ii) a working group, called the Program Management Support Committee, has been created and its members appointed; (iii) three working groups, called Technical Management Committees, have been created and their members appointed, one for each component; and (iv) evidence that the PMU has been formed with key personnel working full-time on the program, including its chief, the programming and monitoring coordinator, the financial and administrative coordinator, and the procurement coordinator, together with the environmental and social specialists SENASA designated from its staff; in all cases, they are to meet the profiles and requirements agreed to with the Bank; and (v) assignment of technical responsibility for each program component to the Directors General for Plant Health, Animal Health, and Food Safety, respectively, as appropriate (see paragraph 3.7). See Annex III with respect to special fiduciary contractual conditions precedent to the first disbursement. See Annex B of the Environmental and Social Management Report (ESMR) with respect to special contractual conditions of an environmental and social nature precedent to the first disbursement (REL#3).

Special contractual conditions of execution: Before fruit fly abatement activities under Component I, and any activity relating to subsequent stages, begin in each intervention region, the executing agency will present evidence that the quarantine stations and quarantine treatment zones have been established and are operational, according to the certificates of acceptance for each quarantine station and quarantine treatment zone (paragraph 3.8). See Annex B of the ESMR for the special environmental contractual conditions for execution (REL#3).</td></tr>
<tr><td colspan="6">Exceptions to Bank policy: None.</td></tr>
</table>

Strategic Alignment						
Challenges:[(d)]	SI	☐	PI	☑	EI	☑
Crosscutting themes:[(e)]	GD	☐	CC	☑	IC	☐

(a) Under the Flexible Financing Facility (document FN-655-1), the borrower has the option of requesting changes to the amortization schedule, and currency and interest rate conversions. When considering such requests, the Bank will take into account operational and risk management considerations.

(b) Under the flexible repayment option of the Flexible Financing Facility, changes in the grace period are possible provided the original weighted average life (WAL) of the loan and the last date of payment, documented in the loan contract, are not exceeded.

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

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

I. DESCRIPTION AND RESULTS MONITORING[1]

A. Background, problem to be addressed, and rationale

1.1 **Economic context and agriculture sector policies**. Over the last 20 years, the Peruvian economy has had one of the highest growth rates in Latin America. Gross domestic product (GDP) grew at an average annual rate of 6%. The key to this robust economic performance has been sound macroeconomic management, institutional and structural reforms, and open trade practices. These basic pillars of economic policy have been pursued by successive governments since the reforms began in the 1990s. The solid growth in employment and incomes has reduced the poverty rate. Moderate poverty fell from 45.5% in 2005 to 19.3% in 2015, while extreme poverty dropped from 27.6% to 9% over the same period (INEI, 2016). Poverty in Peru is mainly associated with rural areas, where 60% of the country's poor reside. Moreover, 67% of the earned income of the rural poor comes from farming activities, and only 33% from nonfarm activities (Robles, 2012; Zegarra, 2013). In this respect, the agricultural sector has played an important role in the country's economic success, both reaping the benefits of the stability and reforms, and contributing directly to economic development. From 2005 to 2015, the agricultural sector grew at an average rate of 5.5% annually, contributed 8% to GDP, generated 25% of total employment in the country, and accounted for 9% of exports (INEI, 2016; AGAP, 2016).

1.2 While the aforementioned reforms have reinforced the growth of Peru's agricultural output and exports, it must also be recognized that policies geared to the agricultural sector itself have played an important role. The Ministry of Agriculture and Irrigation (MINAGRI) has invested in: (i) regularizing property rights for farmers—with titles cleared for 60% of rural properties; (ii) developing irrigation infrastructure—the area under irrigation grew by 2.2% per year from 1994 to 2015, expanding the area under irrigation from 1.7 million hectares (ha) to 2.8 million ha; and (iii) supporting the adoption of technologies through various programs that together serve 25% of the country's small-scale producers. The Peruvian government has also given priority to developing health and safety policies, notably through: (i) creation of the National Agricultural Health Service (SENASA) in 1992 (Decree Law 25,902); (ii) approval of the Agricultural Health Act in 2008 (Decree Law 1059) and the Food Safety Act (Decree Law 1062); and (iii) approval of a strategic plan for developing agricultural health and safety services (2008-2022). The Ministry of Transportation and Communications and the subnational governments have also made progress in expanding the network of national, departmental and local roads, cutting travel times between the countryside and cities by 62% (Webb, 2013).

1.3 **Sanitary and phytosanitary challenges in the agricultural sector**. An examination of the long-term development plan for SENASA's agricultural health services and of trends in the agricultural sector shows that global demand for safe food is rising (Gollin and Probst, 2015; AGAP, 2016). Agricultural exports involve intensive use of health and safety services. Producers' demand for these services will continue to rise as the range of exportable products diversifies and the

[1] The references cited in this document are available at OEL#1.

agricultural frontier is pushed back in northern Peru. The expansion of the areas under cultivation, together with the greater crop and livestock breeding density, raises the health and safety risks. If the current annual rates of growth in the sector are to be sustained over the long term, Peru will have to make periodic investments to consolidate an efficient, effective, responsive agricultural health system that is readily accessible to farmers. To this end, challenges must be addressed in the following areas:

1.4 **Fruit fly eradication**. The most important area of the country for fruit and vegetable production is the coastal strip that runs the length of the country from the Chilean border in the south to Ecuador in the north. This coastal region has a million hectares suitable for cultivation, although the area actually farmed is around 500,000 ha, by 361,000 farmers. The area devoted to fruits and vegetables totals 150,000 ha, with output supplying both domestic and international markets (CENAGRO, 2012). The main constraint to the development of a competitive fruit and vegetable sector is the pest known as the fruit fly, which SENASA is already combatting and controlling from Tacna to La Libertad. Nevertheless, in northern Peru, where the farming frontier is being extended through irrigation projects, SENASA interventions have not yet been implemented. The presence of the fruit fly in northern Peru has the following consequences:

a. It restricts access to international markets. Many importing countries prohibit or impose special requirements for agricultural products from areas that are infested by fruit flies. The technical requirements include quarantine measures demanded by various countries that are fruit-fly free, to ensure that this pest does not enter their territory. The treatments required include methyl bromide fumigation and refrigeration treatment, at an estimated cost of US$55 to US$143 per ton of fruit (SENASA, 2017a). Given the high cost of treatment, quarantine measures can become technical barriers to agricultural exports. Fruit fly eradication programs are needed to facilitate international trade.

b. It reduces productivity and increases costs. The fruit fly causes damage that hinders the productivity of crops. It is estimated that such damage reduces the productivity of host crops by 30% to 70% (SENASA, 2009). To avoid these losses, farmers must incur phytosanitary costs due to the use of pesticides. Average annual pesticide use is estimated at US$142 per hectare in Peru (INEI, 2012b). In the program's area of intervention, losses amount to an estimated 87 million soles annually (SENASA, 2009).

c. It worsens environmental contamination. Environmental contamination from pesticide use is another type of damage from the presence of the fruit fly. An estimated 30% to 70% of the land area in the project is treated with some type of pesticide (CENAGRO, 2012). The harmful effects from improper use of pesticides pose risks to the health of farmers and persons in surrounding areas (Asfaw et al., SENASA, 2017a). Pesticide use creates an environmental risk—when improperly applied they can contaminate water sources, the air, and the soil. Chemical pesticides are not needed in pest-free and post-eradication areas. Thus, during the abatement and eradication stages, the use of 198 tons of chemical pesticides was avoided in the

intervention area from 2006 to 2008. This diminishes the risk of contamination for people and the environment (OVE, 2009).

1.5 **Swine diseases**. The swine population in Peru numbers 3.2 million, distributed among 598,363 producers, of whom 95% have fewer than 10 animals. There are around 50,000 breeding sows that produce 2.6 million pigs per year, and annual meat production of 180,500 tons (INEI, 2012b). Yearly consumption of pork is 4.2 kg per person, and the country imports 5% of its domestic consumption. Swine producers are divided among small-scale "backyard" breeders (60%), semi-modern, mid-tech farms (20%) and modern, high-tech breeding operations (20%). Home units account for 40% of the country's pork output, while production on modern and semi-modern farms represents 60%. The Department of Lima accounts for the bulk of pork production and has the largest share in supplying the main consumption centers, such as industrial processing plants and sausage factories.

1.6 The main problem in the sanitary management of swine is on small-scale family farms, where animals are not vaccinated (SENASA, 2017b). Diagnostics indicate that the main diseases limiting the development of domestic production and exporting are classical swine fever (CSF), Aujeszky's disease, porcine epidemic diarrhea (PED), porcine reproductive and respiratory syndrome (PRRS), and transmissible gastroenteritis (TGE). The leading disease is CSF—data from the epidemiological surveillance system show that outbreaks have been declining, from 137 in 2010 to 14 in 2015. This downward trend coincides with the high rates of vaccination that have been achieved. Nevertheless, in the Departments of Lima, Lambayeque, Cajamarca, and Piura there are still areas where the disease is endemic and that have outbreaks (SENASA, 2017b). The diagnostic assessments indicate that swine diseases:

a. Restrict access to international markets. CSF is a highly contagious disease that affects domestic swine of all ages. The World Organisation for Animal Health (OIE) requires it to be reported, and it hinders foreign trade because of its cross-border mobility and the consequent production losses it can generate (Edwards et al., 2000). In recent years, Peru has been an importer of pork, with volumes ranging from 655 tons in 2005 to 1,306 tons in 2014. Pork exports have been very limited: the only data available are for minor shipments to Ecuador. It is important to note that other countries in the region with a smaller swine population than Peru's have been able to export significant amounts of pork, after being declared CSF-free. For example, Chile's pork exports in 2014 amounted to 121,783 tons, up by 1.2% in volume and 10.2% in value over 2013.

b. Increase production costs and lower productivity. CSF can produce losses of up to 25% of animals or it can reduce their weight significantly. This disease also generates high costs in terms of control and eradication programs, such as vaccines and surveillance and control of livestock movements (SENASA, 2017b).

1.7 **Food safety**. Access to safe food in sufficient quantities is essential for guaranteeing food security and maintaining high health standards among the population (Unnevehr, 2014). Unhealthy foods that contain bacteria, viruses, parasites or harmful chemical substances can cause more than 200 different

diseases, ranging from diarrhea to cancer (Chang, 2014). To measure the level of contamination in food, SENASA has been monitoring food contamination since 2011. The results have shown that, with the exception of turkey meat, foods of animal origin betray high levels of contamination by microbiological agents. In foods of plant origin, the highest levels of contamination come from chemical residues in paprika, tomatoes, grapes, avocados, mangoes, mandarins and lemons. Contamination by microbiological agents is found in coffee and paprika (SENASA, 2017c). Diagnostic assessments indicate that lack of food safety:

a. Limits foreign trade. Various countries have established safety standards for food imports, to protect the health of their population by avoiding consumption of products contaminated with chemical, physical, and/or biological residues (Unnevehr, 2000). Between 2008 and 2014 Peru received notifications from the health authorities of importing countries concerning safety problems, such as the presence of contaminants in foods of plant origin. The United States Food and Drug Administration (FDA) reported that during this period it issued a total of 235 notifications rejecting peppers, paprika, lettuce and peas, among other products. The European Union reported 48 notifications rejecting paprika, peppers, grapes, mangoes, and dehydrated peppers, among other products (SENASA, 2017c).

b. Damages the health of consumers. One health indicator associated with the presence of unsafe food is the prevalence of acute diarrheal diseases (ADD) transmitted by contaminated foods. Every six months the Peruvian Ministry of Health (MINSA) reports some 14,000 cases of ADD, half of them in children, caused by ingesting contaminated foods (SENASA, 2017c). Experts from the World Health Organization (WHO) consider that between 70% and 80% of ADD cases are caused by foods. In Peru, primary processed foods that meet sanitary standards are not widely available on the market. It is estimated that 70% of foodstuffs of animal origin and 30% of those from plants are contaminated (SENASA, 2017c). As well, it is estimated that only 26% of farmers in the country apply good production practices (INEI, 2012a, 2013, and 2014).

1.8 **Empirical evidence on agricultural health and food safety**. The evidence shows that interventions designed to strengthen agricultural health and food safety services have the following impacts:

a. Plant health. In Chile, the economic benefits from controlling pests through biological factors were found to exceed 2 million pesos per hectare, far exceeding the cost of treatment, which was 2,000 to 4,000 pesos per hectare in the forest sector (Baldini, 2005). In the specific case of the fruit fly eradication program in Peru, an impact evaluation using the discontinuous regression methodology found that program beneficiaries boosted their knowledge of the pest and their use of prevention measures by 10%, and total fruit yields rose by 65% (Salazar et al., 2016). In fact, estimates on this fruit fly eradication component show an internal rate of return (IRR) of 22.4%.

b. Animal health. Diseases such as CSF have a significant overall economic impact on the agricultural sector (Edwards et al., 2000). In 1997, an outbreak of CSF in the Netherlands cost US$2.3 billion to eradicate, and 12 million hogs were slaughtered in the attempt to control the disease. In Honduras,

animal deaths attributable to CSF represented 13.5% of total mortality in one swine operation, and the death rate among the animals infected was between 40% and 70% (McCauley, 1997). The evidence shows that a strategy of preventing, controlling, and eradicating CSF based on biosafety measures and prophylactic vaccination is effective (Dong et al., 2012). In Haiti, the estimated benefits of a CSF vaccination program over 10 years ranged from US$16.4 million to US$32 million (Otte, 1997). In Chile, declaration of the country as CSF-free helped producers boost their exports from 50,000 tons in 2000 to 500,000 tons in 2016.

c. Food safety. The literature reveals that countries exporting agricultural products tend to reduce the quantities sold when there are difficulties in complying with the safety standards of importing countries (Ferro et al., 2015). The literature also shows that the safety standards used in trading partner countries can have adverse impacts on the agricultural sector of exporting countries. For example, the prohibition on imports of raspberries from Guatemala imposed by the United States led to significant losses in the agricultural sector (Henson and Mitullah, 2004; Calvin et al., 2002). A series of 10 case studies of vegetable exports found that compliance with food safety standards results in greater quantities of products exported, better prices for those products, and higher incomes for their producers (Unnevehr and Ronchi, 2014).

d. Environment. This operation will contribute to the sustainable use of natural capital and the environment by reducing the use of pesticides. Estimates show that some fraction of the pesticides applied to crops is dispersed into the environment through the air, polluting the soil and water (Eyhorn et al., 2015). Pesticides have been detected in all natural ecosystems and have been consistently identified in land and marine animals, thereby reducing biodiversity (Law, 2014; Beketov, MA et al., 2013). To control the contamination caused by the indiscriminate use of these agrochemicals requires good agricultural practices and biological control mechanisms. The evidence shows that biological control, combined with crop management, is effective in reducing the presence of pests and leads to lower use of pesticides (Sivinski et al., 1996; Fit, 2000). An analysis of integrated pest management in 24 countries finds that these interventions reduce the use of pesticides by 30% on average (Pretty and Bharaucha, 2015).

1.9 **Bank support for agricultural health and safety services**. The many free trade agreements signed over the last decade between countries in the region and their respective trading partners in the United States, Europe, and Asia brought with them the need to strengthen the public agencies responsible for agricultural health and food safety services, to gain access to the benefits of exporting agricultural products to those markets. Weak agricultural health and food safety agencies represented a trade barrier to countries in the region. The Bank was quick to recognize the opportunity and the importance of support for strengthening health and safety services in several countries in the region. From 2002 to 2014, the Bank approved 17 investment loans totaling US$358 million to strengthen agricultural health and food safety systems in the region. Most were specific projects for strengthening public agricultural health and food safety agencies (OVE, 2015).

1.10 In the case of Peru, the Bank approved two operations for public investment in agricultural health in 1998 and 2006 (loans 1025/OC-PE and 1647/OC-PE), the first for US$76 million (US$45.6 million of which was financed by the IDB) and the second for US$46.7 million (of which US$15.3 million was financed by the Bank). These operations yielded important results in terms of agricultural health at the national level, including the following: (i) 97% of the country was declared free of foot-and-mouth disease (FMD) without vaccination, and 3% free with vaccination; (ii) bovine brucellosis and bovine tuberculosis were eradicated in 13 departments; (iii) caprine brucellosis was eradicated in six provinces; (iv) the incidence of mange in camelids was reduced to less than 2% in 10 departments; (v) areas free of the Mediterranean fruit fly (*Ceratitis capitata*) were declared in the Departments of Tacna and Moquegua, totaling 19,084 ha, and the pest was abated on 40,252 additional hectares in the provinces of Arequipa, Ica, Lambayeque and Santa Rosa de Lima; (vi) the *Anastrepha grandis* fruit fly was eradicated in Ica, Arequipa, Moquegua, and Tacna; and (vii) areas free of the *Anastrepha fraterculus* fruit fly were declared in the valleys of Moquegua and Tacna.

1.11 The results of these operations led to the approval in 2008 of a Conditional Credit Line for Investment Projects (CCLIP) for the Long-term Investment Program of the National Agricultural Health Service (PE-X1002) for US$175 million, with an execution period of 15 years. The first operation under this CCLIP, the Agricultural Health and Agrifood Safety Development Program (loan 2045/OC-PE), was approved in 2008, for US$122 million, of which US$25 million was financed by the Bank and US$97 million through the local contribution. That operation resulted in: (i) declaration of an FMD-free area without vaccination in 98.6% of the national territory; (ii) a reduction in the presence of positive events of CSF from 65% in 2010 to 6% in 2014; (iii) reinforcement of stations at the border with Ecuador; (iv) fruit fly detection, monitoring and abatement on more than 800,000 ha along the coast and in the inter-Andean valleys; (v) establishment of nine quarantine stations at the port and airport of Callao, as well as in northern Peru; (vi) characterization and registration of 427 agricultural pesticides and 910 livestock inputs; and (vii) monitoring of 25 foods for the presence of chemical residues and microbiological contaminants.

1.12 **Lessons learned for the design of the second operation under the CCLIP**. The main lessons learned from execution of the first operation under the CCLIP were considered when preparing this program. Table 1 presents the lessons learned and the measures agreed with SENASA.

Table 1. Lessons learned and measures taken

Lessons learned	Measures taken
Implementation arrangement. The previous operations supported an execution arrangement centralized in the PMU. That approach can lead to management conflicts and administrative inefficiencies, as occurred in loan 2045/OC-PE.	For the present program, the following implementation arrangement has been agreed: (i) the PMU is responsible for overall administration of the program, including procurement processes; and (ii) SENASA's line directorates will assume technical responsibility for program components. In both cases, the teams will be reinforced to meet program targets.

Table 1. Lessons learned and measures taken

Lessons learned	Measures taken
Quarantine protection. A quarantine protection system is essential to achieve pest- or disease-free zones. The previous operations did not implement quarantine stations or quarantine treatment zones within the recommended timeframe, thereby weakening protection in the intervention areas.	It has been agreed that: (i) the program will give priority to building and equipping 16 quarantine stations and 11 quarantine zones in the first 18 months of execution; and (ii) before beginning the work to eradicate the fruit fly (Component I), the executing agency will present evidence that the quarantine stations and the quarantine zones have been implemented.
Vaccination against CSF. Highly effective vaccines are necessary to eradicate this disease. The local market availability of CSF vaccines that met the technical requirements was not checked before the start of execution of loan 2045/OC-PE. This resulted in higher costs and implementation delays because, at the start of program execution, SENASA had to import highly effective vaccines. Consequently, not all the planned vaccination campaigns could be carried out.	It was agreed that: (i) SENASA's Animal Health Directorate will determine the technical specifications and cost of the technically appropriate CSF vaccine, during the design phase; and (ii) SENASA will not allow the registration of vaccines that do not meet adequate technical specifications for eradicating CSF.

1.13 **Strategic alignment**. The program is consistent with the Update to the Institutional Strategy 2010-2020 (document AB-3008) and is aligned with the challenges of: (i) economic integration, by offering agricultural health and food safety services that will give Peruvian farmers access to international markets; and (ii) productivity and innovation, as the program will contribute to the criterion of providing affordable public services, eradicating diseases and pests, improving food safety, and expanding crop productivity, thereby making the agricultural sector more competitive. The program will also contribute to the crosscutting theme of climate change and environmental sustainability, by reducing the use of agricultural pesticides (paragraph 1.8).[2] Moreover, the program will contribute to the output indicator regarding beneficiaries of better management and sustainable use of natural capital, under the Corporate Results Framework 2016-2019 (document GN-2727-6), by supporting more sustainable agricultural development with less damage to the environment and biodiversity (paragraphs 1.8 and 1.21). The program is aligned with the Bank's Country Strategy with Peru 2017-2021 (document GN-2889), which gives priority to Bank support for strengthening the agricultural sector. Lastly, the program is consistent with the Agriculture and Natural Resource Management Sector Framework (document GN-2709-5), which identifies agricultural health and food safety as a key activity for improving the productivity and sustainable use of natural resources.

B. Objectives, components, and cost

1.14 **Objective**. The objective of the Conditional Credit Line for Investment Projects (CCLIP) for the Long-term Investment Program of the National Agricultural Health

[2] The alignment of the operation with the crosscutting area of climate change and environmental sustainability is justified by its environmental sustainability approach, as it reduces pesticide use.

Service is to make agricultural products more competitive as a way of increasing farmers' incomes and enhancing quality of life for consumers, through the implementation of individual programs for that purpose. This program is the second individual operation under the CCLIP and aims to help boost agricultural output and exports, and to enhance agrifood safety, by improving the country's sanitary and phytosanitary levels.

1.15 The purpose of the proposed program is for farmers and other actors in the agrifood chain to be pest-free (fruit fly) in their crops and disease-free (CSF) in their husbandry, using good production, hygiene, processing, and distribution practices in foods with a higher risk of contamination.

1.16 The program is broken down into the following components:

1.17 **Component I. Fruit fly eradication in the Departments of Piura, Tumbes, Lambayeque, La Libertad, Cajamarca, Amazonas, Apurímac, Cusco, and Puno (US$115.54 million).** This component would have the following outputs: (i) information on the behavior of the pest, for which it will finance the following lines of action: (a) detection of the percentage of infestation; and (b) determination of the rate of flies per trap per day; and (ii) control of the fruit fly pest, for which it will finance the following lines of action: (a) control of the fruit fly; (b) quarantine control; (c) communication and awareness campaign; and (d) production of sterile fly colonies.

1.18 **Component II. Eradication of swine diseases in Peru (US$17.60 million).** This component would have the following outputs: (i) epidemiological surveillance and control of CSF, for which it will finance the following lines of action: (a) increase coverage in CSF vaccination areas; and (b) monitor the behavior of CSF; (ii) surveillance, prevention, and control of porcine reproductive and respiratory syndrome (PRRS) and other emerging swine diseases such as Aujeszky's disease (AD), porcine epidemic diarrhea (PED), and transmissible gastroenteritis (TGE), for which it will finance the following lines of action: (a) promote implementation of facilities officially controlling PRRS; and (b) monitoring and controlling other emerging diseases (AD, PED, and TGE); (iii) internal quarantine, for which it will finance the following line of action: implement and upgrade internal control stations; and (iv) health education, for which it will finance the following lines of action: (a) design of training and communication plans; and (b) training and communication plan.

1.19 **Component III. Improving safety in the production and processing of primary foods and fodder (US$55.67 million).** This component would have the following outputs: (i) implementation of sanitary surveillance and control over primary foods and fodder, for which it will finance the following lines of action: (a) strengthening and implementation of the safety system; (b) registration of priority farming and breeding properties; (c) registration of pigs and cattle; (d) design and implementation of mitigation programs; (e) monitoring foodstuffs and fodder based on risk; (f) remodeling and/or equipping of laboratories; and (g) implementation of health surveillance stations; (ii) good production and hygiene practices in primary foods and fodder, for which it will finance the following lines of action: (a) use of biological control agents on farm land; (b) certification of "Green Seal" producers; (c) recognition of subnational government trainers; (d) training stakeholders in good practices; (e) graduation of farmers from training programs on good practices

delivered through field schools; and (f) implementation of the incentive plan in municipal slaughterhouses; and (iii) consumers made aware of agrifood safety, for which it will finance the following line of action: raising consumer awareness about agricultural foods and fodder.

1.20 **Other costs (US$3.93 million).** Financing will be provided for the administration, monitoring, evaluation, and environmental and social management of the program. Specifically, the following program activities will be supported: (i) operation and maintenance of the monitoring and evaluation system; (ii) operating expenses of the PMU; (iii) financial and environmental audits; (iv) preparation of studies (impact evaluation and periodic reports); and (iv) environmental and social monitoring.

C. Key results indicators

1.21 The program has a Results Matrix agreed on with the executing agency (Annex II), which presents the impact, outcome, and output indicators. The main expected program results are described in Table 2. Over the long term, the program's impacts will be reflected in: (i) greater value in exports of fruits and vegetables; (ii) an increase in agricultural output; and (iii) greater agrifood safety. The program will benefit 875,855 fruit and vegetable farmers (Component I); 598,440 swine producers (Component II); and 116,817 farmers and 5,400 establishments in the agrifood value chain (Component III).

Table 2. Key Indicators from the Results Matrix

Results	Timing of measurement	Proposed indicators
Reduced damage to agricultural output caused by pests.	Years 1 and 5	▪ Agricultural area declared fruit-fly free.
Reduced damage to livestock output caused by diseases.	Years 1 and 5	▪ Departments where CSF has been eradicated.
Increased number of actors in the agricultural chain that implement good practices.	Years 1 and 5	▪ Actors that adopt good practices.

D. Economic viability

1.22 A cost-benefit analysis was performed to assess the socioeconomic viability of the program. To this end, an analysis was performed for each component, together with one for the program as a whole. The benefits considered included increased fruit and vegetable output, reduced costs for phytosanitary and post-harvest treatment, increased swine production and access to the relevant international markets, greater fruit and vegetable exports, reduced costs for the treatment of food-borne diseases, and lower costs associated with the use of agrochemical inputs. The analysis also covered all the economic costs that will be incurred for implementing the program. All estimates are based on shadow prices, to exclude any distorting effects. The results show that the net present value (NPV) of the program is US$101.2 million, with an IRR of 22.5% (OEL#2). The program can therefore be considered profitable from an economic standpoint. The electronic link

to the economic feasibility study for the program presents the IRR and the NPV, broken down by component, as well as a sensitivity analysis.

II. Financing Structure and Main Risks

A. Financing instruments

2.1 This program is the second operation under CCLIP PE-X1002, which was approved in 2008. The total cost of the program is US$192.75 million, of which the Bank will finance US$100 million from its Ordinary Capital, and US$92.75 million will be financed from the local counterpart contribution. The cost per component is shown in Table 3.

Table 3. Program cost (US$ millions)

Item	Investment components	IDB	Local	Total	%
1	**Component I:** Fruit fly eradication in the Departments of Piurra, Tumbes, Lambayeque, La Libertad, Cajamarca, Amazonas, Apurímac, Cusco, and Puno	65.38	50.16	115.54	59.90
2	**Component II:** Eradication of swine diseases in Peru	9.27	8.33	17.60	9.20
3	**Component III:** Improving safety in the production and processing of primary foods and fodder	24.32	31.35	55.67	28.90
4	**Administration, auditing, and evaluation**	1.03	2.90	3.93	2.00
	Total	**100.00**	**92.75**	**192.75**	**100.00**

2.2 The disbursement period for the program will be five years. The Bank's financing will be disbursed in accordance with the schedule summarized in Table 4, and detailed in the program's Multiyear Execution Plan (MEP).

Table 4. Disbursement schedule (US$ thousands)

Source	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Total	%
	2nd half of 2018	2019	2020	2021	2022	1st half of 2023		
IDB	10.24	21.60	26.91	23.59	12.85	4.81	**100**	52
Local	10.98	19.49	20.27	20.19	15.12	6.69	**92.74**	48
Total	**21.22**	**41.09**	**47.18**	**43.78**	**27.97**	**11.5**	**192.74**	100
%	11.01	21.32	24.48	22.71	14.51	5.97	100	

2.3 **Program eligibility under the CCLIP**. The program meets the requirements stipulated for inclusion under CCLIP PE-X1002, in accordance with Bank policy (document GN-2246-9), in particular: (i) the proposed program falls under the components defined in the CCLIP; (ii) the program was included in the aide-mémoire updating 2017 programming; (iii) the program objectives are consistent with the Bank's country strategy; (iv) the agreement on the CCLIP for the Long-Term Investment Program of the National Agricultural Health Service

provided that the executing agency would be the same for all individual loans under that line, and accordingly the program will be executed by SENASA; (v) the results defined by SENASA in the previous operation (loan 2045/OC-PE) are satisfactory and are supported by the program's performance evaluation; (vi) the previous program disbursed 100% of its funds; and (vii) the borrower and the executing agency have fulfilled the conditions of the loan contract and the CCLIP agreement; and (viii) the borrower and the executing agency complied with the Bank's policies on disbursements and procurement of goods and services, including the presentation of financial statements during execution of the previous program.

B. Environmental and social risks

2.4 This has been classified as a category "B" operation, with moderate adverse environmental and social impacts and risks in some program activities, arising primarily from: (i) the generation of moderate quantities of organic and inorganic waste; (ii) the generation of small quantities of hazardous waste; (iii) the generation of dust and noise, and earth and machinery movement during construction of the 16 small quarantine stations, the 11 treatment stations, the 10 operating centers, and a new small-scale irradiation plant; (iv) possible risks of minor accidents in the laboratories, quarantine stations and treatment plants; (v) possible risk that beneficiaries will be excluded on the basis of gender or ethnicity; and (vi) potential generation of unrealistic expectations, fears, and mistrust among the public. It was also determined that the risk of natural disasters is moderate, taking into account the type of constructions and their geographic location. For this reason, mitigation measures include an update of SENASA's disaster contingency plan, and the observance of international standards for infrastructure construction. Specifically to address the risk of beneficiaries being excluded based on gender or ethnicity, SENASA will implement a strategy with a gender and diversity approach, placing emphasis on using culturally appropriate practices, courses, and dissemination materials. To address the risk of potentially generating unrealistic expectations, fears, or mistrust among the public, SENASA will implement a communication, dissemination, and public relations plan with the beneficiary communities at the outset of the program.

2.5 It was determined that the level of compliance with Bank policies is satisfactory, and that there are no environmental or social liabilities or unattended issues that might affect the future performance of this new initiative. The program has an Environmental and Social Analysis (ESA) and an Environmental and Social Management Plan (ESMP), the final report of which is available on the Bank's external website. It presents procedures, responsibilities, and criteria for identifying, evaluating, mitigating, and monitoring the environmental and social impacts of program-financed activities. The ESMP will be annexed to the Program Operations Manual (POM, OEL#3), and together they will establish environmental and social requirements to ensure that the project is executed in compliance with Bank safeguards and the conditions established in Annex B of the Environmental and Social Management Report (ESMR, REL#3). Lastly, four public consultation workshops will be held in the program's main areas of intervention, with broad participation by relevant stakeholders, including farmers and producers, workers (indigenous, Afro-descendent, and women), and producers' associations, among others (see section VII of the ESA and ESMP).

C. Fiduciary risks

2.6 In the fiduciary area, two medium risks were identified: (i) possible delays in program procurement, and (ii) delays in disbursements, payments to suppliers, and semiannual reports. To mitigate these two risks, it was agreed to: (a) incorporate a procurement specialist with experience in applying Bank policies; (b) include in the POM procedures for procurement and financial management that involve the use of IDB policies, as well as prepare and update program management instruments; (c) adjust SENASA information systems to link programming and budget, in accordance with the structure of the Results Matrix; and (d) provide training, assistance, and coaching to staff in SENASA's PMU in applying Bank policies and procedures, to facilitate program execution.

D. Other project risks

2.7 **Development risks**. Three high-level risks and two medium risks were identified: (i) the quarantine stations and quarantine treatment zones and the irradiation plant might not be operational within the planned timeframe: as a mitigation measure, the fruit fly eradication activities will be contingent upon establishment of the quarantine stations and quarantine treatment zones, and identification of the land for construction of that infrastructure will be a priority for year 1; (ii) the coverage and quality of pest and disease control efforts may fall short of plans, and this will be mitigated by implementing alternatives for contracting human resources, as well as for acquiring critical inputs for pest and disease control; (iii) information may prove inadequate for implementing sanitary measures, and accordingly supervision will be stepped up over the entire agrifood chain; (iv) limited implementation of good practices in agricultural production, for which communication campaigns are planned; and (v) delays due to lack of knowledge for obtaining environmental permits, for which an environmental specialist will be hired.

2.8 **Public management and governance risk**. Two risks of medium severity were identified: (i) the limited technical capacity for executing the program; to mitigate this, SENASA's line directors will be given technical responsibility for the program; and (ii) lack of coordination within the National Agricultural Health Service, for which a working group called the Program Support Management Committee will be constituted.

2.9 **Sustainability of program results**. Once areas have been declared pest- or disease-free, their new sanitary and phytosanitary status will have to be maintained. This entails having in place a surveillance system, stations, and contingency funds to forestall and respond to any re-infestation. These activities will be financed through: (i) the revenues generated by the service fees charged in the inspection and certification process throughout the agricultural value chain; and (ii) national funding for services that cannot be individualized. It is also important to note that the pest and disease eradication stage is intensive in its use of inputs and seasonal labor. By eradicating pests and diseases, the demand for inputs and seasonal labor will be significantly reduced.

III. IMPLEMENTATION AND MANAGEMENT PLAN

A. Summary of implementation arrangements

3.1 The program will be implemented by the National Agricultural Health Service (SENASA), through its "Execution Unit-Agricultural Health Development Program (PRODESA)", which for the purposes of this contract will be called the PMU. The PMU reports directly to the national head of SENASA and will be responsible for overall coordination of program implementation, programming and monitoring, administration and finance; procurement and contracting. Technical management will be handled by SENASA's Line Directorates. The institutional framework is detailed in the POM.

3.2 The program will have a Program Support Management Committee that will provide strategic guidance for the program, interagency coordination, high-level decision-making, and overall supervision of execution, as it is responsible for approving program status reports and, in the event the PMU managers change, to serve as a selection panel. The Program Support Management Committee is comprised of the Head of SENASA, who will chair it; the chief of the Multiyear Investment Programming Office in the Ministry of Agriculture and Irrigation; a representative of the Public Investment Bureau of the Ministry of Economy and Finance; the SENASA Director General of Planning and Institutional Development; the Head of the PMU, who will also serve as the Technical Secretary; and three representatives of the program beneficiaries: one appointed by the Association of Agricultural Producers' Guilds of Peru; one by the Peruvian Association of Pig Farmers; and one by the Consumers' Associations. The Bank will participate as an observer.

3.3 Three working groups called Program Management Technical Committees will also be established—one for each component—to ensure that the activities planned for the various organizational units involved are properly carried out in ways that will achieve the outcomes identified for their respective component, according to the targets established in the Results Matrix and Logical Frameworks. The membership, functions, and responsibilities of the Program Management Support Committee and the Program Management Technical Committees are detailed in the POM.

3.4 The key positions to be created for program execution are the following. Within the PMU: (i) a Head of the PMU; (ii) a programming and monitoring coordinator; (iii) a financial and administrative coordinator; and (iv) a procurement coordinator. SENASA will also appoint from its staff (i) a specialist responsible for social aspects, and (ii) a specialist responsible for environmental aspects, who will handle implementation and observance of the environmental and social management measures established in the ESMP. Within the line directorates, the key positions are: (i) the head of the Plant Health Directorate and its respective subdirectorates, which will be responsible for meeting the targets set for Component I; (ii) the head of the Animal Health Directorate and its respective subdirectorates, with responsibility for fulfilling the targets set for Component II; and (iii) the head of the Agricultural Inputs and Agrifood Safety Directorate and its respective subdirectorates, with responsibility for meeting the targets set for Component III.

The Executive Directorates are responsible for the program's operational activities, based on the technical guidelines set by each Line Directorate.

3.5 **Fiduciary agreements and requirements**. These establish the framework for financial management and planning as well as for supervision and implementation of procurement as required for program execution. Loan resources may be disbursed as advances, as reimbursement of expenses, and as direct payments to suppliers. In the case of advances, disbursements will be based on projected expenditures for up to 180 days. The minimum accountability percentage required for replenishment of advances will be 80%. The executing agency will present audited annual and final financial statements for the program, within the terms and time limits required by Bank policies. To this end, the executing unit undertakes to select and contract an independent audit firm acceptable to the Bank, for the duration of the project. The procurement plan (REL#4) will be managed through the online Procurement Plan Execution System (SEPA). Works and goods will be procured and consulting services contracted in accordance with the Policies for the Procurement of Goods and Works Financed by the Inter-American Development Bank (document GN-2349-9) and the Policies for the Selection and Contracting of Consultants Financed by the Inter-American Development (document GN-2350-9).

3.6 **Direct contracting**. Direct contracting is planned for up to US$23,153,184 to procure organic insecticides with Spinosad as their active ingredient, manufactured exclusively by Dow Agrosciences in the United States and sold in Peru by Bayer Agrosciences. The product was under patent until 2010. Although the patent has expired, no other firm is currently producing fruit-fly bait of higher quality than that pesticide (OEL#4). The procurement may be handled through one supply contract with partial deliveries, or through various partial purchases, depending on planned needs, with a view to reaping the efficiencies inherent in a procurement of this magnitude and securing it at the best price possible. This direct purchase is justified by the need to reach markets in Europe and Japan that do not accept fruit produced with chemical pesticides, and by the lack of any similar product on the market. The proposal for direct contracting is consistent with the provisions of document GN-2349-9, paragraph 3.6(c).

3.7 **Special contractual conditions precedent to the first disbursement. The executing agency, through the PMU, will present evidence that: (i) the POM, to include the ESMP, has been approved by SENASA and is in force, in accordance with terms previously agreed with the Bank,** spelling out the guidelines and procedures the executing agency is to follow in implementing this program; **(ii) the Program Management Support Committee has been created and its members appointed** in order to guarantee interagency coordination and private sector participation, as a means of enhancing program governance and transparency; **(iii) the three working groups known as Technical Management Committees have been created and their members designated—one for each component**—to ensure interagency coordination, specifically among SENASA's directorates and technical secretariat and the PMU; **(iv) evidence that the PMU has been formed with the key full-time personnel, including the unit chief, the programming and monitoring coordinator, the financial and administrative coordinator, and the procurement coordinator, together with the environmental and social specialists that SENASA designates from its staff; in all cases, they are to meet the profiles and requirements agreed to**

with the Bank to ensure program execution and enforce Bank policies in their respective areas; and **(v) assignment of technical responsibility for each program component to the Directors General for Plant Health, Animal Health, and Food Safety, respectively, as appropriate** to establish the Directors' responsibilities and commitments for technical execution of the program to facilitate implementation.

3.8 **Special contractual conditions of execution**. As a special contractual condition of execution, before the fruit fly abatement activities under Component I, and any activity relating to subsequent stages, begin in each intervention region, the executing agency will present evidence that the quarantine stations and quarantine treatment zones have been established and are operational, according to the certificates of acceptance for each quarantine station and quarantine treatment zone, so as to ensure that the efforts to eradicate fruit flies yield their results within the planned time frames and are sustainable.

B. Summary of arrangements for monitoring results

3.9 **Monitoring**. The program has a Monitoring and Evaluation Plan (REL#2). The executing agency will prepare a monitoring report and deliver it to the Bank, no later than 60 days after the end of each six-month period during program execution. These reports will focus on achievement of the output indicators and progress on outcomes, and will identify any problems encountered and the corrective measures taken. The executing agency will prepare the annual work plan (AWP) for the coming year and present it to the Bank's satisfaction, no later than the last quarter of each year during program execution.

3.10 **Evaluation.** The executing agency will perform independent evaluations financed from the loan, specifically (i) the midterm evaluation, to be submitted to the Bank no later than 90 days after 50% of the loan has been disbursed, or two years after the date of the first disbursement of the loan, whichever occurs first; and (ii) the final evaluation, no later than 90 days after the Bank has disbursed 90% of the loan. These reports will include: (i) an assessment of the quality of the data from the monitoring system, (ii) the extent of fulfillment of the outputs and outcomes, and progress against the expected impacts established in the Results Matrix, and (iii) the level of compliance with the ESMP, including an evaluation of progress on the social and environmental indicators.

3.11 **Impact evaluation**. The impact evaluation will focus on a rigorous assessment of Components I and III. Component I will be evaluated using a quasi-experimental methodology of discontinuous regression, exploring the geographic discontinuity of the intervention. For this purpose, baseline surveys will be conducted and a cohort of 615 farmers (308 beneficiaries and a control group of 307) will be monitored. This evaluation will measure the sustainability of the intervention, by gauging the long-term impacts of the previous phase of this program. As for Component III, it will be evaluated using an experimental methodology with randomization at the cluster (village) level but focused on individual (farmer) outcomes. This design explores the progressive implementation of the field schools established in the villages, where training in good practices will be provided. For this purpose, baseline surveys will be conducted and a cohort of 2,520 farmers will be monitored, distributed across 180 villages and divided into treatment and control groups.

Development Effectiveness Matrix		
Summary		
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	
Country Development Results Indicators	-Beneficiaries of improved management and sustainable use of natural capital (#)* -Farmers with improved access to agricultural services and investments (#)* -Beneficiaries of IDBG projects that contribute to at least one key dimension of food security (#)*	
2. Country Development Objectives	Yes	
Country Strategy Results Matrix	GN-2889	Strengthen environmental management.
Country Program Results Matrix		The intervention is not included in the 2017 Operational Program.
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	9.7	
3.1 Program Diagnosis	3.0	
3.2 Proposed Interventions or Solutions	4.0	
3.3 Results Matrix Quality	2.7	
4. Ex ante Economic Analysis	8.5	
4.1 The program has an ERR/NPV, a Cost-Effectiveness Analysis or a General Economic Analysis	4.0	
4.2 Identified and Quantified Benefits	0.0	
4.3 Identified and Quantified Costs	1.5	
4.4 Reasonable Assumptions	1.5	
4.5 Sensitivity Analysis	1.5	
5. Monitoring and Evaluation	10.0	
5.1 Monitoring Mechanisms	2.5	
5.2 Evaluation Plan	7.5	
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	
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. Procurement: Information System.
Non-Fiduciary	Yes	Strategic Planning National System, Monitoring and Evaluation National System.
The IDB's involvement promotes additional improvements of the intended beneficiaries and/or public sector entity in the following dimensions:		
Gender Equality	Yes	The program has an environmental and social management plan that includes activities to ensure participation by vulnerable producers, including indigenous people, Afro-descendants and women.
Labor		
Environment		
Additional (to project preparation) technical assistance was provided to the public sector entity prior to approval to increase the likelihood of success of the project		
The ex-post impact evaluation of the project will produce evidence to close knowledge gaps in the sector that were identified in the project document and/or in the evaluation plan	Yes	The impact evaluation will focus on the rigorously evaluating components I and III of the program. Component I will be evaluated using a quasi-experimental regression discontinuity methodology exploring the geographical discontinuity of the intervention. On the other hand, component III will be evaluated using an experimental methodology, with randomization at the cluster level (population centers) but focused on individual results (agricultural producer).

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

The program's logic follows the key importance of the agricultural sector for Peru's economy and the challenges that the sector still faces with regards to agricultural health and food safety. These challenges continue to have important consequences not only for the health of consumers, but also the successful openness to the trade of agricultural goods. In compliance with the requirements for participation in the CCLIP PE-X1002, the program PE-L1229 therefore has the objective of increasing the competitiveness of agricultural products as well as the income of farmers by improving sanitary and phytosanitary conditions through three main components: (i) eradication of the fruit fly pest, (ii) eradication of diseases among pig livestock, and (iii) improvement of food safety at the national level.

The documentation is well-structured. The diagnostic is based on empirical evidence of animal health and food safety and the related challenges that the agricultural sector still faces today. The proposed solution is then linked to the problems identified. The results matrix (RM) reflects the objectives of the program and establishes a clear vertical logic, including impact indicators that can capture the program's overall effect on the level of agricultural exports, agricultural production, and food safety. The RM includes SMART indicators at the impact, outcome and output level, with their respective baseline values and targets and the means to gather information.

The economic analysis presents a Cost-Benefit Analysis that considers the intervention's expected benefits across the program's three components (benefits of eradication the fruit fly pest and pig livestock diseases, as well as improvements in food safety) and compares them to the program's recurrent and non-recurrent costs. In general, the benefits are based on a good understanding of the theory of change, and the economic costs include all resource costs as well as costs from a social perspective. However, there exists a crucial inconsistency in the number of beneficiaries identified in the economic analysis, results matrix, and program description. Overall assumptions appear reasonable and appropriate; a sensitivity analysis contemplates key parameters and various break-even points.

The monitoring and evaluation plan presents all outputs and associated costs. The evaluation plan proposes two evaluation methodologies: For Component I (fruit fly eradication), the evaluation will serve as a continuation of the previous phase's assessment, relying on the same methodology (geographic regression discontinuity) and the previously identified farmers in treatment and control group. For Component III (improvement of food safety), the evaluation focuses on farmer field schools for good practices in the production of primary food products, relying on a randomized rollout of the schools across population centers. The plan provides sufficient detail on methodological and logistical considerations.

The risk matrix identifies nine risks; six are classified as Medium, and three as High. All of them seem reasonable and include appropriate mitigating actions and compliance indicators.

RESULTS MATRIX

Objective of the CCLIP:	To make agricultural products more competitive as a way of increasing farmers' incomes and enhancing quality of life for consumers.
Specific objectives of the program:	To boost agricultural output and exports, and to enhance food safety, by improving the country's sanitary and phytosanitary levels.

EXPECTED IMPACTS

Indicators	Unit of measure	Baseline		Targets		Means of verification	Observations
		Value	Year	Value	Year		
Impact 1: Increase agricultural exports							
Value of fruit and vegetable exports	US$ millions	1,006	2016	1,660	2022	SUNAT statistics.	Fruit and vegetable production in nine departments.
Impact 2: Increase agricultural production							
Fruit and vegetable production	% Kilos / farm	0 1,065	2015	65 1,920	2022	Impact evaluation study.	
Swine production	Ton	135,898.2	2016	153,945.91	2022	*Anuario de Producción Pecuaria e Industria Avícola* 2013– MINAGRI	National pork production. Growth 13.28%.
Impact 3: Improve food safety							
Samples of prioritized food and fodder that meet safety standards	%	76.2	2015	86	2022	Monitoring report on chemical residues and other contaminants in primary agricultural foodstuffs.	Based on the 25 foodstuffs. According to CODEX parameters
Reduction in notifications rejecting certified export shipments	Notification	22	2016	4	2022	Notifications from countries with food monitoring.	Includes shipping.
Reduced use of insecticides and pesticides	US$ / Household	14.3	2011	10.01	2022	Baseline report and impact evaluation.	Source baseline (BL): Baseline expenditure on insecticides (Salazar et. al, 2016). Target 30% reduction below BL (Pretty and Bharucha, 2015).

EXPECTED OUTCOMES

Expected outcomes	Unit of measure	Baseline		Targets		Means of verification	Observations
		Value	Year	Value	Year		
Pest damage that exceeds farmers' control capability and restricts access to markets	Rate	0.19	2016	0.15	2022	Official system reports from SENASA.	Indicator of agricultural health gap
Crop area with fruit fly eradication stage completed	Ha	0	2016	103,720	2021	SIIMF. Report	Crop area refers to nine departments participating in this phase. Eradication is measured by the indicator of flies per trap per day (FTD) = zero and % of fruit infested = zero. This corresponds to the crop area. Fruit fly: *Ceratitis capitata / Anastrepha fraterculus*.
Crop area declared fruit-fly free	Ha	0	2016	1,070,746	2022	Free area resolution.	Free area means at least 12 consecutive months without detection of pests: *Ceratitis capitata / Anastrepha fraterculus*. The free area declaration corresponds to the total agricultural area and not only that planted with fruits and vegetables.
Proceedings began for bilateral recognition of free areas	Activity	0	2016	1	2019	Recognition application to SAG and APHIS.	Corresponds to free area in the Departments of Tacna and Moquegua. Recognition of free area by Chile and the U.S.
Disease damage that exceeds farmers control capability and restricts access to markets.	Rate	0.20	2016	0.18	2022	Final evaluation / SIGSA report.	Indicator of agricultural health gap.
Departments with CSF eradicated	Depart-ment	0	2016	24	2022	Final evaluation.	598,440 producers. 15.5 million animals.

Expected outcomes	Unit of measure	Baseline		Targets		Means of verification	Observations
		Value	Year	Value	Year		
Actors implementing good practices in production, hygiene, processing, storage, and distribution of agricultural foodstuffs and fodder.	%	22.4	2016	40	2022	Impact evaluation report. SENASA report.	Actors include producers, processors, carriers, and merchants. 116,000 producers and 7,100 actors linked to 25 foods and four fodders. (BL: 22.4%; 26,167 producers familiar with good practices). Information based on activities of the Food Safety Subdirectorate and Target 20 of the MEF's Program of Incentives to Improve Municipal Management
Beneficiaries of better management and sustainable use of natural capital.	Number	0	2016	123,100	2022		

OUTPUTS

Outputs	Estimated cost US$	Unit of measure	Baseline	Year 1	Year 2	Year 3	Year 4	Year 5	Final target	Means of verification
Component I: Fruit fly eradication										
Pest control										
Output 1: Farmers benefiting from communication campaigns	3,780,000	Farmers	0		153,600	153,200	153,600	76,800	537,200	SIP (Integrated Planning System) report.
Output 2: Stations and treatment zones implemented	3,874,846	Facilities	0		14	17			31	Certificate of acceptance of the works (SIP).
Output 3: Irradiation plant built and equipped	9,709,319	Plants	0			1			1	Testing protocol for the irradiation plant.
Output 4: Irradiation services provided	1,600,000	Treatment services	0				72,000	78,000	150,000	SIP reports, irradiation service reports.
Milestone 1: Dosimetric specifications study completed	26,657	Reports	0			1			1	
Milestone 2: Irradiation plant operating	1,573,343	Plants	0				1	1	1	

Outputs	Estimated cost US$	Unit of measure	Baseline	Year 1	Year 2	Year 3	Year 4	Year 5	Final target	Means of verification
Output 5: Verification services conducted in quarantine stations	5,000,000	Services	0			134,700	269,400	269,400	673,500	SIP reports.
Output 6: Fumigation services conducted in treatment zones	3,000,000	Services	0			5,387	16,160	16,160	37,707	SIP reports.
Output 7: Crop areas covered by fruit fly abatement and eradication phases	56,480,376	Ha	0			103,720	103,720	103,720	103,720	SIIMF reports (Year 3 abatement FTD <0.1; Year 4 eradication FTD <0.01, Year 5 post-eradication FTD <0.001). Includes chemical, cultural, legal, and ethological control activities.
Development of technology for mass breeding and release of sterile *Anastrepha fraterculus*										
Output 8: Technology developed for breeding and release of sterile *Anastrepha fraterculus*	199,530	Technology	0	1		1			2	SIP reports. Year 1: Definition of morphotype and breeding. Year 3: Mass production and release.
Output 9: Improved infrastructure for producing sterile *Anastrepha fraterculus*	97,900	Centers	0		1				1	Certificate of acceptance.
Output 10: Sterile fruit flies produced and released	3,900,000	Millions of fruit flies	0				2,400	2,400	4,800	SIP reports. Includes species of *A. fraterculus* and *C. capitate*.
Information system on pest behavior										
Output 11: Trap review services completed	12,328,058	Services	0	129,390	961,603	1,071,603	1,071,603	1,071,603	4,305,802	SIIMF reports.
Output 12: Operations centers constructed	5,798,685	Works	0		4	2			6	Certificate of acceptance.

Outputs	Estimated cost US$	Unit of measure	Baseline	Year 1	Year 2	Year 3	Year 4	Year 5	Final target	Means of verification
Output 13: Samples evaluated in fruit fly operations centers	9,779,386	Samples evaluated	0	21,535	190,230	59,870	1,470	0	273,105	SIIMF reports. The samples are fly-hosting fruits that in the field are presumed to be contaminated and must be evaluated in operations centers.
Component II: Eradication of swine diseases in Peru										
Output 14: Pigs vaccinated	14,101,204	Animals[1]	0	3,305,628	3,359,062	3,418,974	2,411,978	2,452,982	14,948,624	SIP reports. Year 1-3: 90% of the herd vaccinated. Year 4-5: vaccination in departments where CSF is endemic.
Output 15: Pigs sampled for CSF	1,192,538	Animals	0	2,000	2,000	2,000	2,000	2,000	10,000	SIP reports.
Output 16: Establishment under official control for PRRS, implemented	597,330	Establish-ment	0	2	5	5	7	7	7	SIP reports. 7 establishments 5 in Lima and 2 in Arequipa (cumulative target). Establishments pig farms and “backyard” or family-run breeding operations.
Output 17: Mobile stations operating	1,468,094	Stations	0	8	8	8	8	8	8	SIP report. 5 new and 3 improved stations (cumulative target).
Output 18: Pig farmers trained in prevention (biosafety) and control of swine diseases	246,368	Persons	0	30,000	30,000	30,000	30,000	30,000	150,000	Reports of the technical systems (Services Module) and the Integrated Planning System (SIP).

[1] Considering that sows require up to two doses per year, a greater volume of doses is anticipated.

Outputs	Estimated cost US$	Unit of measure	Baseline	Year 1	Year 2	Year 3	Year 4	Year 5	Final target	Means of verification
Milestone 1: Female farmers trained	147,820	Female farmers		18,000	18,000	18,000	18,000	18,000	90,000	
Milestone 2: Male farmers trained	98,548	Male farmers		12,000	12,000	12,000	12,000	12,000	60,000	
Component III: Improving safety in the production and processing of primary foods and fodder										
Sanitary surveillance and control of primary agricultural foodstuffs and fodder										
Output 19: SINIA redesigned	474,285	Documents	0	1					1	Technical proposal submitted to the Multisector Standing Committee on Food Safety (COMPIAL). *National Food Safety System.
Output 20: Risk Evaluation Unit operating in SENASA	529,642	Year of operation	0	1	1	1	1	1	5	Risk management reports from the Risk Evaluation Unit.
Output 21: Actors in the agrifood chain registered	4,521,906	Records	0	3,500	7,872	7,872	7,872	109,291	136,407	SIP reports. Records include actors, productive units, marketers, carriers, etc.
Output 22: Animals registered	8,085,163	Animals	0	600,000	1,440,636	2,040,867	3,477,112	1,469,400	9,028,015	SIP reports. Swine and cattle.
Output 23: Programs in place to mitigate food contamination risks	984,337	Programs	0	10	10	10	10	10	10	Reports: Risk Mitigation Program: Good Production and Hygiene Practices BPM, HACCP, POES, and traceability.
Output 24: Early warning system for food contamination designed and implemented	298,351	System	0	1					1	Reports issued by the system. Includes 25 foodstuffs and 4 fodders
Output 25: Diagnostic analyses performed	6,560,177	Tests	0	25,000	55,202	55,202	55,202	55,202	245,808	Includes chemical and biological testing.

Outputs	Estimated cost US$	Unit of measure	Baseline	Year 1	Year 2	Year 3	Year 4	Year 5	Final target	Means of verification
Output 26: National and subnational officials trained	1,637,493	Persons	0	69	214	2,001			2,284	In years 1 and 2: SENASA personnel. In year 3: Includes subnational government personnel.
Output 27: Laboratories and primary processing center for samples remodeled and equipped	2,085,465	Facilities	0	15	2				17	SIP report.
Output 28: Analytical methods implemented	2,869,133	Method	0	78	117				195	181 chemical methods and 14 biological methods (includes parasites). Report on methods in the Quality System of the Diagnostic Center.
Output 29: Health surveillance centers implemented	3,524,412	Centers	0		4				4	Certificate of acceptance. The centers are in Tumbes, San Martín, Ucayali, and Apurímac.
Good production and hygiene practices for primary agricultural foodstuffs and fodder										
Output 30: Biological control production center (SCB) implemented	1,898,523	Laboratory	0			1			1	Certificate of acceptance.
Output 31: Biological agents produced for farms growing priority crops	810,659	Ha	0	5,665	7,975	10,470	13,030	16,450	53,590	SIP reports. Includes beneficial insects and microorganisms.
Output 32: Farmers certified with the “Green Seal”	757,752	Farmers	0		112	187	257	329	885	SIP reports. SIGSV reports. The “Green Seal” is awarded to farmers who observe good practices and use biological agents for pest control.

Outputs	Estimated cost US$	Unit of measure	Baseline	Year 1	Year 2	Year 3	Year 4	Year 5	Final target	Means of verification
Output 33: Subnational government trainers in good production and hygiene practices recognized	1,819,487	Persons	0	250	60	50	40	27	427	Reports from SENASA technical systems.
Output 34: Actors trained in good production and hygiene practices	685,797	Actors	0	2,500	6,800	2,800			12,100	Reports from SENASA technical systems. Includes 5,000 establishments; 3,500 carriers; 3,600 merchants.
Output 35: Farmers trained in good practices through field schools	3,900,299	Farmers	0	10,000	20,370	20,265	10,467		61,102	Reports from SENASA technical systems. Good farming practices include training in handling and reduced use of agrochemicals.
Output 36: Municipal slaughterhouses with incentive plan implemented	9,106,017	Slaughter-house	0		41	61	60		162	Reports from SENASA technical systems.
Raising consumer awareness about food safety										
Output 37: Consumers informed about food safety	5,124,576	Persons	0	250,012	750,012	750,012	750,012	750,012	3,250,060	Consumer survey.

FIDUCIARY AGREEMENTS AND REQUIREMENTS

Country:	Republic of Peru
Project number:	PE-L1229
Project name:	Agricultural Health and Agrifood Safety Development Program, Phase II
Executing agency:	National Agricultural Health Service (SENASA)
Prepared by:	Andrés Suárez and Gabriele del Monte (FMP/CPE)

I. EXECUTIVE SUMMARY

1.1 SENASA's fiduciary situation and institutional capacity were evaluated in meetings with key personnel from SENASA and the Program Management Unit (PMU) team. Fiduciary risks were identified, along with the need to strengthen procurement management with personnel who have experience working with IDB policies and in handling the various fiduciary processes. To mitigate the risk, which is classified as medium, the measures in the risk matrix were identified.

II. THE COUNTRY'S FIDUCIARY CONTEXT

2.1 The country's financial administration systems are effective and reliable. Peru's country procurement system is currently using reverse auction and electronic catalog for framework agreements subsystems, as approved under document GN-2538-11.

III. THE FIDUCIARY CONTEXT OF THE EXECUTION UNIT AND EXECUTING AGENCY FOR PROJECT BENEFICIARIES

3.1 The program will be executed by SENASA, a decentralized public agency reporting to the Ministry of Agriculture and Irrigation through its organizational structure supported by the PMU. The PMU will manage the program and will perform the functions of planning, legal management, procurement management, administrative, financial and accounting management, and monitoring and evaluation. The PMU will apply Bank standards and procedures and national regulations, and will serve as SENASA's counterpart in dealings with the Bank. The program's management framework is detailed in the POM.

3.2 The PMU uses the Electronic Government Procurement System to record the Procurement Plan for disseminating procurement processes. It also uses the Integrated Financial Administration System (SIAF) as the financial management operations system to record accounting entries for program operations.

IV. Fiduciary Risk Evaluation and Mitigation Actions

4.1 The first risk, identified as medium, refers to potential delays in program procurement and will be mitigated by hiring a consultant specializing in this area, and by having the Bank provide training for PMU personnel. The second risk, again classified as medium, refers to delays in disbursements, payments to suppliers, and submitting semiannual reports, and will be mitigated by linking SENASA information systems for programming and budgeting to the structure of the program Results Matrix. Lastly, the POM will have procedures for the fiduciary management of procurement and financial management of program.

V. Considerations for the Special Provisions of the Loan Contract

5.1 **As a special contractual condition precedent to the first disbursement of the loan, SENASA will present, to the Bank's satisfaction, evidence that the PMU has been created and staffed with key personnel working full-time on the program, comprising the head of the unit, the programming and monitoring coordinator, and the financial and administrative coordinator, and that a procurement specialist has been hired in accordance with the profiles and requirements agreed on with the Bank for procurement coordination, to ensure program execution and enforce Bank policies in their respective areas.**

5.2 The PMU will submit audited annual and final financial statements for the program, with specific terms of reference acceptable to the Bank, within 120 days following the end of each fiscal year for the borrower, during the original disbursement period or any extensions thereof. The final audit report will be submitted within 120 days following the end of the original disbursement period or any extensions thereof.

5.3 The equivalence in the disbursement currency or approval currency of an eligible expense incurred in the borrower's local currency will be determined for accounting and expense justification purposes by using the exchange rate in effect on the date on which the approval currency or disbursement currency is converted to the borrower's local currency (Article 4.10(b)(i) of the General Conditions of the loan contract). The agreed exchange rate to be used for determining the equivalence of expenses incurred in local currency and chargeable to the local contribution or of expense reimbursements chargeable to the loan proceeds will be the exchange rate in effect on the effective date on which the borrower, the executing agency, or any other legal entity or individual that has been delegated the authority to incur expenses makes the respective payments to the contractor, supplier, or beneficiary.

VI. Agreements and Requirements for Procurement Execution

6.1 **Procurement execution**. Procurement will be carried out in accordance with the Policies for the Procurement of Works and Goods Financed by the IDB (document GN-2349-9 of March 2011) and the Policies for the Selection and Contracting of Consultants Financed by the IDB (document GN-2350-9). Procurements by public entities financed under this program will be executed in

accordance with the aforementioned policies. The threshold for the use of international competitive bidding will be made available to the borrower through the executing agency at www.iadb.org/procurement. Below this threshold, the selection method will be based on the complexity and characteristics of the procurement or contract, which will be reflected in the Bank-approved Procurement Plan.

6.2 **Procurement of works, goods, and nonconsulting services.** Works, goods, and nonconsulting services[1] arising under the program and subject to international competitive bidding will be procured using the standard bidding documents issued by the Bank. Bidding processes subject to national competitive bidding will be executed using national bidding documents agreed on with the Bank (or satisfactory to the Bank if not yet agreed). The Project Team Leader is responsible for reviewing the technical specifications.

a. **Specialized input**. Direct contracting is planned for up to US$23,153,184 to procure organic insecticides with Spinosad as their active ingredient, manufactured exclusively by Dow Agrosciences in the United States and sold in Peru by Bayer Agrosciences. The product was under patent until 2010. Although the patent has expired, no other firm is currently producing fruit-fly bait of higher quality than that pesticide. The procurement may be handled through one supply contract with partial deliveries, or through various partial purchases, depending on planned needs, with a view to obtaining efficiencies and the best price possible. This direct purchase is justified by the need to reach markets in Europe and Japan that do not accept fruit produced with chemical pesticides, and by the lack of any similar product on the market. The proposed direct contracting is consistent with document GN-2349-9, paragraph 3.6 (c).

6.3 **Selection of individual consultants.** Consulting service contracts arising under the program will be executed in accordance with document GN-2349-9 using the standard request for proposals issued by the Bank or agreed on with the Bank, regardless of the contract amount (or satisfactory to the Bank if not yet agreed). The Bank's Project Team Leader is responsible for reviewing the terms of reference.

6.4 **Ex ante review of procurement.** The Bank will review selection and procurement processes as set forth in the Procurement Plan. At any time during program execution, the Bank may modify the review modality for these processes, by providing advance notice thereof to the borrower or the executing agency. Any changes approved by the Bank will be reflected in the Procurement Plan.

6.5 **Domestic preference.** No margin for domestic preference will apply.

6.6 **Use of the country procurement system.** In view of the IDB Board's approval of the use of the subsystems for electronic reverse auctions and electronic catalogs for framework agreements in Peru, these subsystems will be used after the actions described in the Agreement for the Partial Use of the Country Procurement System of the Republic of Peru are implemented, along with the conditions described

[1] Under the Bank's procurement policies, nonconsulting services are treated as goods.

therein, and once the Procurement Plan has been amended accordingly. When the Board grants its approval, advanced use of Peru's country public procurement system (SNCP) will be possible in Bank-financed operations executed by agencies in this system. The implementation thereof will be subject to any potential recommendations.

6.7 **Initial Procurement Plan.** See the detailed procurement plan for the first 18 months. The executing agency will publish the Procurement Plan in the Procurement Plan Execution System (SEPA) or in another system determined by the Bank, and will update it at least semiannually or as required by the Bank to reflect actual program execution needs and the progress made.

6.8 **Procurement supervision.** Ex post evaluations by the Bank will cover a sample of contracts based on technical and professional criteria and will be performed by external auditors. Once use of the country procurement system has been implemented, these arrangements may be updated based on the fiduciary risks.[2]

6.9 **Records and files.** Files are to be kept in the offices of the executing agency under conditions that ensure the integrity and security of the documents.

VII. FINANCIAL MANAGEMENT AGREEMENTS AND REQUIREMENTS

7.1 **Programming and budget**. Expenses related to program activities will have been assessed as viable under the rules issued by the Ministry of Economy and Finance (MEF). The National Multiyear Programming and Investment Management System (invierte.pe) is that system at present, to streamline approval of investment projects and allow flexibility in their execution at all three levels of government. Preparation of the annual programming and budget will be based on provisions of the MEF's Public Budget Office.

7.2 During preparation of the operation, the program's Multiyear Execution Plan (MEP) was drawn up and on this basis the annual budgets were prepared, taking the disbursement schedule into account. The budget assigned to the program will be approved by the MEF and the Congress of the Republic and reported annually to the Bank. The budget will be executed under the SIAF.

7.3 **Accounting and information systems**. The SIAF's project execution module will be used for program accounting and reporting, as it offers transparency and specific controls on budget execution. Using this module, financial reports can be generated, including disbursement requests, exchange rate controls, program financial statements, and other reports required by the Bank. Accounting will be on a cash basis and will follow international accounting standards and the directives issued by the National Public Accounting Office.

7.4 **Disbursements and cash flow**. The program will use the country's treasury system, following the directives issued by the National Debt and Treasury Office. Expenditures are subject to the budget and financial execution process, and data on their formalization under the rules applicable to each of the stages

[2] Once the reverse auction and framework agreement subsystems have been put into use in operations as part of the strategy for the use of Peru's country system, executed procurement processes will be systematically monitored and supervised by tracking and verifying the stability of the country system.

(commitment, accrual, drawing, and payment) will be reported in the SIAF's project execution module. The PMU will keep a special bank account in U.S. dollars and another in soles (monetization), to manage the loan proceeds. The potential for the MEF to start using a single treasury account for loan programs will be analyzed. Based on the current coordination with that ministry, this option could be implemented in the short term.

7.5 Disbursements will be based on the program's actual liquidity needs. The PMU will submit disbursement requests to the Bank, along with a financial plan that will initially reflect estimated expenditures for up to 180 days. Supporting documentation for disbursements will be provided for at least 80% of total cumulative balances pending justification, using the Bank's forms.

7.6 The records and supporting documentation for activities and transactions will be subject to ex post review by the external auditors. All documents and records will be kept for a period of at least three years from the date of the last disbursement. Any Bank-ineligible expenditures will be repaid from the local contribution.

7.7 **Internal control and internal audit**. The control environment, control activities, communication and information, and monitoring of the activities of the executing agency/PMU will be governed by the country's laws and regulations, which are based on the Law on the National Control System and the Office of the Comptroller General of the Republic (CGR).

7.8 SENASA's organizational structure includes an institutional control entity, which will be responsible for internal and external control, pursuant to the Law on the National Control System and the CGR. It will receive a copy of the external audit reports via the Government Audit System designed by the CGR, which it can use to perform inspections.

7.9 **External control and reporting**. In the framework of the CGR's role and the regulations governing it, external audits of projects are outsourced to independent audit firms acceptable to the Bank. Independent audit firms are evaluated periodically by the Bank. The CGR authorizes the executing agency/PMU to select and contract an independent audit firm in accordance with Bank policies for the entire program execution period, including any extensions of the final disbursement period. A tier I or II independent audit firm will be selected.

7.10 The program financial statements include: cash flow statement, cumulative investment statement, notes on those statements, and the declaration by the head of the PMU. The audit report will include the evaluation of the internal control system. The cost of the external audits will be covered with funds from the loan, estimated at US$350,000 during the planned years of loan execution.

7.11 **Retroactive financing and recognition of expenses**. There is no provision for retroactive financing or recognition of expenses.

7.12 **Financial supervision plan**. The plan may be adjusted in accordance with program execution and the external audit reports.

Table 1. Supervision plan

Activities	Nature and scope	Frequency
Financial	Review of the portfolio with the executing agency and MEF	Twice per year
	Financial audit and delivery of financial statements	Annual and final
	Review of disbursement requests and attached reports	Four per year
	Inspection visit/Review of program progress/Analysis of control environment at the executing agency	Annual

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

PROPOSED RESOLUTION DE-__/17

Peru. Loan ___/OC-PE to the Republic of Peru. Agricultural Health and Agrifood Safety Development Program Phase II. Second Individual Operation under the Conditional Credit Line for Investment Projects (CCLIP) for the Long-Term Investment Program of the National Agricultural Health Service

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 Republic of Peru, as Borrower, for the purpose of granting it a financing to cooperate in the execution of the Agricultural Health and Agrifood Safety Development Program Phase II, which constitutes the second individual operation under the Conditional Credit Line for Investment Projects (CCLIP) PE-X1002 approved on 5 November 2008 by Resolution DE-134/08. Such financing will be in the amount of up to US$100,000,000, 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 __ _____ ____)

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