ENVIRONMENTAL AND SOCIAL STRATEGY (ESS) [1]

Horticulture and Fruit Processing and Production (PE-L1168)

Peru

I. SUMMARY

Date:	April 7, 2015
Country:	Peru
Sector:	Agro-Industry
Project Name:	Sociedad Agricola Viru S.A.
IDB A Loan Amount:	Up to US$56.70 million
IDB B Loan Amount:	US$15.0 million
Co-Lenders:	US$30.42 million
Status:	Eligibility
EIC:	B

II. PROJECT AND COMPANY OVERVIEW

Background:

2.1. Peru aims to become a strategic food supplier to the world markets as people demand more and higher quality food products. However, for the Peruvian industry to meet these growing demands, it needs to continue making improvements in the operational, environmental and social aspects of the business. Specifically, the non-traditional agriculture sector needs to: i) strengthen food product innovation; ii) manage declining yields of core agricultural crops; iii) increase agriculture diversification in new crops and geographical areas; iv) implement newer technology and automation in food processing; v) build internal capacity to create an effective labor force, vi) integrate environmental

[1] This Environmental and Social Strategy (ESS) is being made available to the public in accordance with the Bank's Policy on Disclosure of Information. The ESS has been prepared based primarily upon information provided by the Project sponsors and does not represent either the Bank's approval of the Project or verification of the ESS's completeness or accuracy.

and social action plans with business growth strategies; and vii) access cross-border long-term financing, not available by local banks.

2.2. Sociedad Agricola Viru SA ("Viru" or the "Company") is one of Peru's leading agro-exporting companies that ranks within the country's top three exporters of processed asparagus, artichokes and peppers. The Company began operations in 1994 as a processor of asparagus and has achieved greater product diversification (artichokes, peppers, sauces lines) during its 20 years of business operations. It conducts its agricultural operations on approximately 7,000 hectares (ha) of land (owned and leased) certified under Globalgap, employs approximately 6,000 people, and provides technical assistance to approximately 300 small farmers in its supply chain to ensure high quality food products.

A. Project Objective and Description

2.3. IDB proposes to provide a senior secured corporate loan to Viru to finance the deployment of new technologies to expand its vegetable processing export business and conduct its operations in a socially inclusive and environmentally sustainable way. These actions are expected to strengthen Viru's competitiveness.

2.4. In 2013, Viru, and its affiliate Sociedad Agricola Caynarachi S.A[2], began a 5-year, investment program to: i) develop 823 ha of asparagus plantations to maintain its business lead in preserved asparagus exports and food innovation; ii) develop 1,500 ha of avocado (510 ha planted during 2011-2014) and 1,000 ha of heart of palm plantations to diversify the variety of crops grown to improve revenues and stabilize employment; iii) increase the application of technologies to conserve water on irrigated land, improve food quality, and reduce production costs; iv) finance a higher level of working capital; and v) refinance certain loans to strengthen its debt profile structure (collectively, the "Project").

III- INSTITUTIONAL AND REGULATORY FRAMEWORK:

3.1 The capital expenditures associated to this Project and the Companies' activities in general are designed considering compliance with current Peruvian and international environmental, social, labor and safety regulations and certification standards. Below is a list of the main applicable environmental regulations and authorizations with respect to the Project:

- Permission to use water for agriculture irrigation and implementation of hydraulic works if any (Agencia Nacional del Agua).
- Environmental Impact Assessment (EIA).
- Regulation of agrochemical warehouses.
- Authorization for stockpiling, processing and packaging of fruits.
- Best Agricultural Practices according to Peruvian and international standards.

[2] Sociedad Agricola Caynarachi is a pre-operating company established in 2013 to develop heart of palm.

3.2 Several government institutions regulate, promote and provide oversight over the quality and market promotion of agricultural products in Peru. **DIGESA** is an agency within the **Ministry of Health** that regulates all aspects of basic sanitation and environmental compliance. **Promperu**, the Commission for the promotion of Peru Export and Tourism, supports the implementation of rules, regulations and other international requirements for the export industry. **The National Agricultural Sanitary and Phytosanitary Service (SENASA)** within the Ministry of Agriculture, is responsible, among other activities, for supervising seed quality, agricultural chemical pesticides and pharmaceuticals. **MINCETUR** is responsible for regulating and supervising foreign trade and tourism. **ANA** is the National Water Agency that regulates water permits for agriculture, surface and ground water extraction and storage as well as studies and monitoring of watersheds across the country. SERNAMP is the public institution for protected areas and natural resources management. DGAAA is the bureau for environmental and agricultural affairs and SERFOR is the forest and fauna protection service by the Minister of Agriculture and Irrigation. SINFOR is the bureau for the supervision of forest resources and wildlife by the Minister of the Environment.

Compliance with IDB safeguards requirements:

3.3 Following IDB's Classification Policy (OP-703 Directive B.3), this initiative has been classified as a Category B Project, as it is likely to cause mostly local and short-term negative environmental and social impacts for which effective mitigation measures are readily available.

3.4 According to the Safeguard Policy Filter, this Project has triggered the following directives of the Environment and Safeguards Compliance Policy (OP-703): B.3 (Screening and Classification), B.4 (other risks including Associated Facilities), B.5 (Environmental Assessment Requirements), B.6 (Consultations), B.9 (Natural Habitats and Cultural Sites), B.10 (Hazardous Materials), and B.11 (Pollution Prevention and Abatement).

3.5 The Bank will also require that the Project complies with the directives: B.2 (Country Laws and Regulations), B.7 (supervision and compliance) and B.17 (Procurement) as well as with the Public Information and Disclosure Policy (OP-102), the Indigenous Peoples Policy (OP-765) if applicable, the Gender Equality Policy (OP-270) and the Disaster Risk Management Policy (OP-704). The information available at this stage indicates that the Project will not require involuntary resettlement and will not impact negatively on indigenous communities. See Policy Filters in Annex I and II.

3.6 The Bank's Agricultural Sector Operational Policy (OP-721) and Rural Development Operational Policy (OP-752) are also relevant to the analysis of the Companies' environmental and social performance, as are IFC ESHS Performance Standards and guidelines and relevant industry guidelines.

3.7 It is also applicable, compliance with IDB's Exclusion List for Non-sovereign Operations, especially in relation to the International Convention of Biological Diversity and the Rotterdam and Stockholm Conventions on POPs.

IV- ENVIRONMENTAL AND SOCIAL SETTINGS

Environmental:

4.1 Most of the plantations and Project facilities are located in a biome that is known as the Pacific Desert. This biome or ecoregion is predominant along all the Peruvian Coast. Its climate is characterized as warm during summer (December through March) and humid during winter (May through September), when drizzle is frequent.

4.2 The ecoregion's relief is mainly plain, with extended slightly elevated flatlands or "tablazos" (terraces), and hill and dune zones rarely develop above 700 meters above sea level. Vegetation is mostly composed by mesquites (*Prosopis* spp.), cactus, bromeliads and other species adapted to water scarcity, dry winds and high sun exposure.

4.3 Most of the Project's area of influence from Trujillo to Tacna is part of the Coastal Desert that expands for more than 12,857,500 hectares according to land-use studies by the Minister of Agriculture. Furthermore, some of the fruit providers and associated farmers operate in Piura and La Libertad, areas that are located in the Tumbes-Piura Dry Forest region (*Bosques Secos de Tumbes/Piura*). Dry Forest consists primarily of shrub species and is a low density formation that develops over the coastal desert "tablazos" (terraces). Tree species are generally low and sclerotic. Many forests in the region are mono-specific and more than 95% of trees are mesquites (*Prosopis* spp.).

4.4 This region is part of the Tumbesian area of endemism (Cracraft - 1985), that includes a narrow strip of dry forest extending from the Guayaquil Gulf in the north, along the coastal stretch, down to La Libertad region south of Piura. In spite of covering a relatively small area, the region presents a significant degree of endemism. According to INRENA, the Savanna Dry Forest covers approximately 2,430,700 hectares along the Northwest coast of Peru with limited representation in nearby protected areas (9%).

4.5 To date, there is no information regarding protected areas in the area of influence, but it is not expected to find any Conservation Units near the Project sites or any protected area under consideration by national or local authorities. The dry forests (*bosque secos*) present in the region have been substantially degraded over time.

4.6 Soil condition in Project plantation areas is mostly of low agrological quality with low potential for agriculture without appropriate conditioning, fertilization and irrigation. In contrast, on the several river valleys that cross the tablazo from the Andes to the Pacific Ocean, soils are richer and support diversified agricultural activities, limited mainly by the need for irrigation during the dry season.

V- MAIN IMPACTS, RISKS AND CONTROL MEASURES:

5.1 This initiative will likely have a high potential for positive impacts on vulnerable stakeholders, including women and vulnerable groups. It is also expected to follow best agricultural practices, including strict certification schemes according to international standards required by the consumers in Europe and the USA. However, as in any similar agriculture initiative, this Project was classified as Category B as it is likely to cause mostly local and short-term negative environmental and social impacts for which effective mitigation measures are readily available.

5.2 Based on the preliminary information available for this Project, the main potential environmental and social impacts and risks related to this operation are likely to be the following:

(i) **contamination and accidents due to inadequate use, storage and disposal of pesticides, treated seeds and fertilizers:** although VIRU fallows best management practices and national and international certification standards that requires strict management of agrochemicals, there is a moderate potential for accidental spills and contamination during transportation, storage and application of pesticides, some of them are highly toxic to human health and the environment. As part of the Project, it is not expected any usage of industrial chemicals, pesticides or POPs that are banned or severely restricted internationally and contemplated in the IDB Exclusion List (Rotterdam and Stockholm Convention on Persistent Organic Pollutants).

(ii) **(ii) contamination due to inadequate management of liquid and solid wastes from agriculture and fruit processing:** similarly to the previous case, the fruit processing under this Project will produce moderate to large amounts of organic solid and liquid wastes that will need especial management or recycling for composting or animal feed. It is expected that VIRU will be recycling most of the organic waste from agriculture for composting, considering the need to add large amounts of organic matter to the soil for proper preparation under desert conditions. The generation of hazardous waste is minimal, and is expected to be related to fuel, lubricant, coolants, cleaning and other chemical products for generators, batteries, water pumps and industrial machinery. VIRU is performing additional studies in coordination with national authorities in order to improve its efficiency in water and energy usage.

(iii) **potential social and reputational risks related to land tenure, access to water and labor issues:** the Project is not expected to construct water reservoirs, dams, channels or any large irrigation infrastructure since most of it is already established by the irrigation committees under public administration. Also, it is not expected any affectation to other water users, cause resettlement of families or any negative impacts to indigenous communities. However, since there is no detailed social baseline for this Project, it is not clear at this stage if the Indigenous People Policy would be activated. In any case, there is a potential beneficial effect of the Project on local stakeholders, some of them considered vulnerable families that could belong to indigenous communities. There is a moderate risk for the creation of higher economic expectations to local stakeholders that could pose reputational risks to the Bank.

(iv) **potential affectation to natural or critical natural habitats due to land-use change for agriculture, especially for the clearing of native vegetation for the establishment of new parcels for cultivation:** according to the preliminary information of the Project, most of Viru's lands are already farmlands dedicated to other crops for decades. It is expected that part of the converted lands, around 400 hectares, would be on marginal lands or "*tierras eriazas*" that in most cases would be considered natural (and potentially critical) natural habitats as defined by Directive B.9. The natural landscape in these areas are covered by several types of arid ecosystems along the Pacific Cost, mainly the Dry Forest Ecosystem that convers around 2,430,700 hectares along the Northwest coast of Peru with limited representation in nearby protected areas (9%). Many of these ecosystems are degraded by several decades of unsustainable exploitation, due to goat grassing, firewood and timber extraction. It is important to note that it is not expected the introduction of invasive alien species and the clearance of large extensions of native forests.

(v) **potential affectation to Cultural Sites:** the Project's area of influence is located on extensive coastal plains and river valleys were several archeological and paleontological sites exists, many of them are related to ancient indigenous cultures known as *Mochica* or *Moche*, very well-known and studied in Peru. It is not expected that the land preparation of new parcels would affect any existing or newly discovered cultural sites, since this area has been cultivated for several decades. VIRU currently has certifications and permits from national authorities for all existing plantations in regard to cultural sites (CIRA: Certificado de Inexistencia de Restos Arqueologicos). Additional studies in coordination with relevant stakeholders will be required and a Chance Find Procedure as appropriate in order to comply with Directive B.9 of Critical Cultural Sites.

Other issues and cumulative impacts and risks:

5.3 There is a risk of indirect and cumulative impacts being generated by displacing existing traditional crop and herding activities to other regions, leading to land conversion and impacts on natural habitats. This could also induce potentially unsustainable livelihood practices for former subsistence farmers who could be displaced to other regions due to higher land prices and lack of economic activities

5.4 The most important positive cumulative impacts of the Project are of a socioeconomic nature, chiefly involving the improvement of the economy of urban and rural communities. Hiring of local labor as well as indirect employment generation through procurement of local goods and services will be the most immediate benefit. This will result in a significant increase of local available income, with effects on consumption patterns that shall in turn induce additional economic activity and diversification.

5.5 With regards to the rural economy, benefits will accrue from increased levels of regional production that will attract additional service providers and generally contribute to the enhancement of the technical and commercial conditions within which the regional agricultural sector operates. On the negative side, the previous mentioned effects may result in significant inflation of local goods and services as well as of real estate values.

5.6 It is important to note that VIRÚ employs typical and often state of the art mitigation and management environmental measures to minimize these mentioned impacts and to ensure compliance with all applicable regulations and achieve compliance with IDB requirements. VIRÚ has made significant efforts to prepare and implement its Environmental and Social Management Program and Best Management Practices (ESMP/BMP), particularly in the management of agrochemicals, fuels and other hazardous materials; sustainable practices in fruit production and processing; workers and community health and safety, among other issues with high international standards to achieve certification for the markets in the USA and Europe.

5.7 Additionally, a more thorough evaluation will be needed regarding the mentioned negative impacts and risks as well as the corresponding compliance with Peruvian regulations and IDB Policies that will be assessed in more detail by the IDB during the environmental and social due diligence of the Project.

VI- ENVIRONMENTAL AND SOCIAL STRATEGY

6.1 The Project team, with the assistance of an independent environmental and social consultant will perform an environmental and social due diligence (ESDD) in order to confirm that all Project relevant impacts and risks have been, or will be properly and adequately mitigated. The environmental and social due diligence will specifically assess the following aspects:

- **a.** Assessment of compliance status with the applicable environmental, social, health and safety, and labor law requirements in Peru (e.g., laws, regulations, standards, permits, authorizations, applicable international treaties/conventions, etc.)—including their Environmental Impact Assessment requirements, and project specific legal compliance.
- **b.** Assessment of compliance with any applicable Bank environmental and social policy and guidelines, in particular the directives B.4 (other risks including Associated Facilities), B.10 (Hazardous Materials), B.11 (Pollution Prevention and Abatement); B.5 (Environmental Assessment Requirements), B.6 (Consultations), B.9 (Natural Habitats and Cultural Sites) of the Environmental and Safeguard Compliance Policy, the Public Disclosure Policy (OP-102), the Indigenous Peoples Policy (OP-765), the Gender Equality Policy (OP-270) and the Disaster Risk Management Policy (OP-704).
- **c.** Evaluation to confirm that the Project's direct, indirect and cumulative negative environmental and social impacts, from both construction and operation phases, have been properly identified and evaluated.
- **d.** Evaluation to confirm that the Project complies with: i) IFC's General EHS Guidelines; and ii) Estimation of gross and net GHG emissions.
- **e.** An evaluation to ensure adequate environmental and social mitigation measures and monitoring, in terms of their completeness, sufficiency of detail, feasibility, cost, definition of responsibility, schedule, and quality control.

f. A determination of key indicators and requirements for the projects execution, complete with timelines and milestones. Indicators for each project and for corporate performance will be sought.

g. An evaluation to ensure adequate health and safety plans and procedures, including their technical adequacy given the potential project-specific health and safety risks, adequate level of training to be performed, and sufficient resources to be made available to ensure adequate implementation.

h. An evaluation to confirm adequate contingency plans (i.e. emergency and spill plans), including confirmation that all relevant project-specific environmental risks have been identified, proper procedures have been developed, and sufficient resources will be made available to ensure adequate implementation.

i. An evaluation of project-related information disclosure and public consultation as well as stakeholder engagement activities that have been performed and the proposed future actions to provide adequate ongoing information disclosure and public consultation with the local population according to Peruvian regulations and IDB policies.

j. An evaluation, and further development as necessary, of Project (loan agreement) monitoring/supervision procedures to ensure proper implementation of environmental, social, and health and safety actions and requirements.

k. An evaluation of environmental, social and health and safety terms and conditions in relevant project legal documents (e.g. concession contract, construction contract, operations and maintenance contract, etc.), in terms of sufficiency, potential risks or liabilities, or other issues.

l. An evaluation of potential existing and future environmental, social, or health and safety financial risks and liabilities associated with the Project, the project site, and the Companies.

m. An evaluation of the company's environmental, health and safety management systems, including plans and procedures, responsibilities and resources, training, auditing, and reporting, and in particular all the system components necessary to ensure future projects and works which will be implemented will not generate negative impacts.

n. An evaluation to confirm that any environmental or social liabilities or non-compliances identified are corrected or addressed by an acceptable corrective action plan, as necessary, in order to correct or mitigate any existing environmental, social, or health and safety non-compliance or liability associated with the existing projects and company assets.

6.2 As part of the Bank’s environmental and social due-diligence, the Bank will prepare an Environmental and Social Management Report (ESMR) for consideration by the Bank’s Environmental and Social Review (ESR) group. The ESMR will provide a synthesis of the relevant environmental, social, health, safety and labor aspects related to the Project and the proposed Bank recommendations.

6.3 In view of the ongoing management efforts being undertaken by VIRÚ and the information available initially at this stage, the ESDD should place particular attention on the following aspects of the Companies’ E&S performance:

Corporate Practices

- Leased lands selection and conditions, land tenure, claims, conflicts, etc.
- Purchased land selection policies
- Integrated Waste management
- Other activities of the Companies that might pose a reputational risk to the Bank
- Issues related to irrigation activities, water permits, downstream water users, construction of channels, water reservoirs and dams.
- Relations with local rural and indigenous communities, potential benefits and positive impacts and social programs.
- GHG annual emissions measurements and reporting
- International certification, membership and criteria for fruit production and export
- Labor policy and employee housing
- Company policy updates:
    - Forest protection or set asides
    - Land acquisition criteria
    - Human Resources
    - Good Agricultural Practices
- Update on compliance with legislation applicable especially regarding forests clearance and provincial territorial plans (INRENA)
- Overall stakeholder engagement plan
- Consultations with relevant NGOs, universities and local authorities.
- General ESHS and IFC guidelines

CAPEX specific issues

- Cultural sites or archeological/paleontological sites, if any. Development of a Chance Find Procedure and detailed information on corresponding institutions and legal framework.
- Direct and indirect impacts to high biodiversity areas and critical natural habitats (Ramsar Sites, protected areas, IBAs, Protection Forest, Territorial Management Plans, and vulnerable species monitoring)
- Land clearing and preparation, and its compliance with local and national regulations
- Agrochemical storage authorization and compliance.
- Management of dust, noise and truck traffic at the fruit storage and processing facilities.
- Consultation processes with respect to the facilities construction and operation as applicable.

ANNEX VII - SAFEGUARDS SCREENING FORM FOR CLASSIFICATION OF PROJECTS (SSF)

SAFEGUARD POLICY FILTER REPORT

PROJECT DETAILS	
IDB Sector	Agriculture And Rural Development-Agribusiness
Type of Operation	Corporate Finance
Additional Operation Details	
Investment Checklist	Agribusiness Crops
Team Leader	[Not Set]
Project Title	PE-LXXXX VIRU Agroindustrial
Project Number	[Temporary Project]
Safeguard Screening Assessor(s)	Villalba, Alberto Esteban (AVILLALBA@iadb.org)
Assessment Date	2015-01-29

SAFEGUARD POLICY FILTER RESULTS		
Type of Operation	[Not Set]	
Safeguard Policy Items Identified (Yes)	Activities to be financed by the project are in a geographical area and sector exposed to natural hazards* (Type 1 Disaster Risk Scenario).	(B.01) Disaster Risk Management Policy– OP-704
	Type of operation for which disaster risk is most likely to be low .	(B.01) Disaster Risk Management Policy– OP-704
	The Bank will make available to the public the relevant Project documents.(i.e. Project Abstract, Environmental Social Strategy, PMAs)	(B.01) Access to Information Policy– OP-102
	Does this project offer opportunities to promote gender equality or women's empowerment through its project components?	(B.01) Gender Equality Policy– OP-761
	The operation is in compliance with environmental, specific women's rights, gender, and indigenous laws and regulations of the country where the operation is being implemented (including national obligations established under ratified Multilateral Environmental Agreements).	(B.02)
	The operation (including associated	(B.03)

	facilities) is screened and classified according to their potential environmental impacts.	
	The operation may be of higher risk due to controversial environmental and associated social issues or liabilities.	(B.04)
	An Environmental Assessment is required.	(B.05)
	Consultations with affected parties will be performed equitably and inclusively with the views of all stakeholders taken into account, including in particular: (a) equal participation of women and men, (b) socio-culturally appropriate participation of indigenous peoples and (c) mechanisms for equitable participation by vulnerable groups.	(B.06)
	The Bank will monitor the executing agency/borrower's compliance with all safeguard requirements stipulated in the loan agreement and project operating or credit regulations.	(B.07)
	Environmental or culturally sensitive areas, defined in the Policy as critical natural habitats or critical cultural sites in project area of influence.	(B.09)
	Conversion of Natural Habitats in project area of influence.	(B.09)
	The operation has the potential to impact the environment and human health and safety from the production, procurement, use, and disposal of hazardous material, including organic and inorganic toxic substances, pesticides and Persistent Organic Pollutants (POPs).	(B.10)
	The operation has the potential to pollute the environment (e.g. air, soil, water, greenhouse gases...).	(B.11)
	The operation is already under construction by the Executing Agency or the Borrower.	(B.12)

	Any part of the investment or component(s) is being co-financed.	(B.15)
	Suitable safeguard provisions for procurement of goods and services in Bank financed projects may be incorporated into project-specific loan agreements, operating regulations and bidding documents, as appropriate, to ensure environmentally responsible procurement.	(B.17)
Potential Safeguard Policy Items	No potential issues identified	
Recommended Action:	Operation has triggered 1 or more Policy Directives; please refer to appropriate Directive(s). Complete Project Classification Tool. Submit Safeguard Policy Filter Report, PP (or equivalent) and Safeguard Screening Form to ESR. The project triggered the Disaster Risk Management policy (OP-704). A Disaster Risk Assessment (DRA) may be required (see Directive A-2 of the DRM Policy OP-704) in case of high risk, a limited DRA in case of moderate risk. Next, please complete a Disaster Risk Classification along with Impact Classification.	
Additional Comments:		

ASSESSOR DETAILS	
Name of person who completed screening:	Villalba, Alberto Esteban (AVILLALBA@iadb.org)
Title:	
Date:	2015-01-29

COMMENTS
No Comments

SAFEGUARD SCREENING FORM

PROJECT DETAILS	
IDB Sector	Agriculture And Rural Development-Agribusiness

Type of Operation	Corporate Finance
Additional Operation Details	
Country	
Project Status	
Investment Checklist	Agribusiness Crops
Team Leader	[Not Set]
Project Title	PE-LXXXX VIRU Agroindustrial
Project Number	[Temporary Project]
Safeguard Screening Assessor(s)	Villalba, Alberto Esteban (AVILLALBA@iadb.org)
Assessment Date	2015-01-29

PROJECT CLASSIFICATION SUMMARY

Project Category: B	**Override Rating:**	**Override Justification:**
		Comments:
Conditions/ Recommendations	• Category "B" operations require an environmental analysis (see Environment Policy Guideline: Directive B.5 for Environmental Analysis requirements). • The Project Team must send to ESR the PP (or equivalent) containing the Environmental and Social Strategy (the requirements for an ESS are described in the Environment Policy Guideline: Directive B.3) as well as the Safeguard Policy Filter and Safeguard Screening Form Reports. • These operations will normally require an environmental and/or social impact analysis, according to, and focusing on, the specific issues identified in the screening process, and an environmental and social management plan (ESMP). However, these operations should also establish safeguard, or monitoring requirements to address environmental and other risks (social, disaster, cultural, health and safety etc.) where necessary.	

SUMMARY OF IMPACTS/RISKS AND POTENTIAL SOLUTIONS

Identified Impacts/Risks	Potential Solutions
Minor or moderate conversion or degradation impacts to natural habitats (such as forests, wetlands or grasslands). For example, impacts can	**Ensure Proper Management and Monitoring of the Impacts of Natural Habitat Loss:** A Biodiversity Management Plan (BMP) should be prepared that defines how impacts will be mitigated (roles and responsibilities, monitoring, budget, etc.) and could be incorporated in the ESMP. Depending on the financial product, the BMP should be referenced in appropriate legal documentation (covenants, conditions of disbursement, etc.). Confirmation should be obtained from competent

include habitat clearance and fragmentation, increased soil erosion and eutrophication.	experts that they are confident that the plan can mitigate impacts and also that the relevant authorities have approved the BMP.
The project is likely to negatively change the use of the land but the related negative impacts will be minor to moderate in nature (for example significant change arising from replacing rainforest, wetlands or other biologically sensitive areas to biofuel production and associated industrial activities and infrastructure).	**Land use:** A Plan should be prepared that defines how land use change will be mitigated (roles and responsibilities, monitoring, budget, etc.) and could be incorporated in the ESMP. Proper consultation should be foreseen. Confirmation should be obtained from experts that the plan can mitigate impacts and also that relevant authorities have approved the Plan. Examples of mitigation include reforestation, GHG offsetting, nutrient fixation in soils, conservation of biodiversity.
Borrower is committed to complying with applicable ILO requirements (including commitment to non-discrimination, equal opportunity, collective bargaining and rights of association) and national employment in relation to working conditions but does not fully address all employment requirements.	**Confirm Labor Practices are Adequate:** The borrower should be required to improve employment and employment rights including (as appropriate): (a) clarification of employment practices and terms; (b) support of collective bargaining; (c) approaches to workers' organizations; (d) non-discrimination and equal opportunity; (e) fair and transparent retrenchment/redundancy amongst workers; and (f) development of appropriate grievance mechanisms. These issues should be defined in a human resources policy. Depending on the financial product, requirements should be referenced in appropriate legal documentation (covenants, conditions of disbursement, etc).
Generation of solid waste (such as process sludges and bark) is moderate in volume, does not include hazardous materials and follows standards recognized by multilateral development banks.	**Solid Waste Management:** The borrower should monitor and report on waste reduction, management and disposal and may also need to develop a Waste Management Plan (which could be included in the ESMP). Effort should be placed on reducing and re-cycling solid wastes. Specifically (if applicable) in the case that national legislations have no provisions for the disposal and destruction of hazardous materials, the applicable procedures established within the Rotterdam Convention, the Stockholm Convention, the Basel Convention, the WHO List on Banned Pesticides, and the Pollution Prevention and Abatement Handbook (PPAH), should be taken into consideration.
Likely to have minor to moderate emission or discharges that would negatively affect ambient environmental conditions (potentially from changes to water	**Management of Ambient Environmental Conditions:** The borrower should be required to prepare an action plan (and include it in the ESMP) that indicates how risks and impacts to ambient environmental conditions can be managed and mitigated consistent with relevant national and/or international standards. The borrower should (a) consider a number of factors, including the finite assimilative capacity of the environment, existing and future land use, existing ambient

quality and/or availability or reduction to local air quality from pesticide spraying).	conditions, the project's proximity to ecologically sensitive or protected areas, and the potential for cumulative impacts with uncertain and irreversible consequences; and (b) promote strategies that avoid or, where avoidance is not feasible, minimize or reduce the release of pollutants, including strategies that contribute to the improvement of ambient conditions when the project has the potential to constitute a significant source of emissions in an already degraded area. The plan should be subject to review by qualified independent experts. Depending on the financial product, this information should be referenced in appropriate legal documentation (covenants, conditions of disbursement, etc.).
Transport of hazardous materials (e.g. fuel) with minor to moderate potential to cause impacts on community health and safety.	**Hazardous Materials Management:** The borrower should be required develop a hazardous materials management plan; details of grievances and any independent health and safety audits undertaken during the year should also be provided. Compliance with the plan should be monitored and reported. Depending on the financial product, this information should be referenced in appropriate legal documentation (covenants, conditions of disbursement etc). Consider requirements for independent audits if there are concerns about commitment of borrower or potential outstanding community concerns.
Project construction activities are likely to lead to localized and temporary impacts (such as dust, noise, traffic etc) that will affect local communities and workers but these are minor to moderate in nature.	**Construction:** The borrower should demonstrate how the construction impacts will be mitigated. Appropriate management plans and procedures should be incorporated into the ESMP. Review of implementation as well as reporting on the plan should be part of the legal documentation (covenants, conditions of disbursement, etc).
The project might impact critical cultural sites, or significantly affect non-critical cultural sites	**Protection of Cultural Sites:** Where impacts to critical cultural sites are anticipated, the borrower shall take, acceptable to the project team, measures to mitigate such impacts and integrate into the project's ESMP. Where noncritical cultural sites are significantly impacted, appropriate measures to protect, mitigate, or compensate the noncritical cultural sites need to be integrated into the ESMP. Projects likely to encounter chance finds, should develop and implement specific procedures to handle chance finds occurrences, integrated into the project's ESMP. Category A projects should include in their EIA, when applicable, an analysis of the archaeological potential of the areas of direct influence, and, as necessary, propose chance find procedures, based on internationally accepted practices.

DISASTER RISK SUMMARY

Disaster Risk Category: High

Disaster/ Recommendations	• The reports of the Safeguard Screening Form (i.e. of the Safeguards Policy and the Safeguard Classification Filters) constitute the Disaster Risk Profile to be summarized in and

	annexed to the Environmental and Social Strategy (ESS). The Project Team must send the PP (or equivalent) containing the ESS to the ESR. • The Borrower should consider including disaster risk expertise in the organization of project oversight, e.g. in the project's panel of experts. For the Bank's requirements, the Borrower addresses the screened disaster risks in a Disaster Risk Management Summary reviewing disaster and climate change risks associated with the project on the basis of a Disaster Risk Assessment (DRA). Based on the specified hazards and the exposure of the project area, it demonstrates the potential impact of the rapid onset events and/or slow inset changes for the project and its area including exacerbated risks for people and environment, given local vulnerability levels and coping capacities. Furthermore the DRM Summary presents proposed measures to manage or mitigate these risks in a Disaster Risk Management Plan (DRMP). The DRA /DRMP to which the DRM Summary refers may be a stand-alone DRA document (see Directive A-2 of the DRM Policy OP-704) or included in other project documents, such as feasibility studies, engineering studies, environmental impact assessments, or specific natural disaster and climate change risk assessments, prepared for the project. These documents should be accessible for the Project Team. • The Project Team examines and adopts the DRM summary. The team remits the project risk reduction proposals from the DRMP to the engineering review by the sector expert or the independent engineer during project analysis or due diligence, and the financial protection proposals to the insurance review (if this is performed). The potential exacerbation of risks for the environment and population and the proposed risk preparedness or mitigation measures are included in the Environmental and Social Management Report (ESMR), and are reviewed by the ESG expert or environmental consultant. The results of these analyses are reflected in the general risk analysis for the project. Regarding the project implementation, monitoring and evaluation phases, the project team identifies and supervises the DRM approaches being applied by the project executing agency. • Climate change adaptation specialists in INE/CCS may be consulted for information regarding the influence of climate change on existing and new natural hazard risks. If the project requires modification or adjustments to increase its resilience to climate change, consider (i) the possibility of classification as an adaptation project and (ii) additional financing options for climate change, and consult the INE/CCS adaptation group for guidance.

SUMMARY OF DISASTER IMPACTS/RISKS AND POTENTIAL SOLUTIONS

Identified Impacts/Risks	Potential Solutions
Earthquakes from various sources are prevalent in the project area and the likely severity of impacts is moderate.	The Disaster Risk Management Plan should secure a design for the project at an acceptable level of seismic risk for the project and address potential exacerbated risks for people and the environment during construction and operation. Appropriate measures to reduce the risks (predominantly engineering), to prepare for impact (predominantly environmental and social safeguards) and to include financial protection will need to be included.
Significant storm surge may occur in the project area and the likely severity of impacts is major or extreme.	The Disaster Risk Management Plan should secure a design for the project at an acceptable level of the coastal flood risks for the project and address potential exacerbated risks for people and the environment during construction and operation, as specified in the Disaster Risk Assessment, which must take into consideration changes in the frequency and intensity of extreme events that could occur with climate change. The DRMP includes risk reduction measures (siting and engineering options), disaster risk preparedness and response (contingency planning, etc.), as well as the financial protection (risk transfer, retention) of the project. The DRM Plan takes into account existing vulnerability levels and coping capacities, the country's disaster alert and prevention system, general design standards, coastal retreat and other land use regulations and civil defense recommendations in coastal areas. However, the options and solutions are sector- and even case-specific and are selected based on a cost analysis of equivalent alternatives. The amplified uncertainties due to climate change may be considered in hazard scenarios and an efficient combination of measures in the DRMP.
Tropical Storms are prevalent in the project area and the likely severity of impacts is moderate.	The Disaster Risk Management Plan should secure a design for the project at an acceptable level of storm risks for the project and address potential exacerbated risks for people and the environment during construction and operation, which must take into consideration changes in the frequency and intensity of tropical storms that could occur with climate change. Appropriate measures to reduce risks (predominantly engineering), prepare for impact (predominantly environmental and social safeguards) and to include financial protection will need to be included.
Significant riverine flooding from sustained rainfall and/or melting water and/or failing dam may occur in the project area and the likely severity of impacts is major or extreme.	The Disaster Risk Management Plan should secure a design for the project at an acceptable level of the flood risks for the project and address potential exacerbated risks for people and the environment during construction and operation, as specified in the Disaster Risk Assessment, which must take into consideration changes in the frequency and intensity of intensive rainfall and in the patterns of snowmelt that could occur with climate change. The DRMP includes risk reduction measures (siting and engineering options), disaster risk preparedness and response (contingency planning, etc.), as well as the financial protection (risk transfer, retention) of the project. The DRM Plan takes into account existing vulnerability levels and coping capacities, the area's disaster alert and prevention system, general design standards, land use regulations and civil defense recommendations in flood prone areas. However, the options and solutions are sector- and even case-specific and are selected based on a cost analysis of equivalent alternatives. The amplified uncertainties due to climate change may be considered in hazard scenarios and an

	efficient combination of measures in the DRMP.
Landslides are prevalent in the project area in unstable or destabilized slopes and the likely severity of impacts is local or moderate.	The Disaster Risk Management Plan should secure a design for the project at an acceptable level of landslide risks for the project, which must take into consideration changes in the frequency and intensity of precipitations that could occur with climate change. Landslides may be exacerbated by the project inside and outside the direct project boundary by debilitating slopes and modifying draining patterns for heavy precipitations, and increase risks for people and the environment during construction and operation. Appropriate measures to reduce risks (predominantly engineering), prepare for impact (predominantly environmental and social safeguards) and to include financial protection will need to be included.
Area flooding from sustained rainfall is prevalent in the project area and the likely severity of impacts is moderate.	The Disaster Risk Management Plan should secure a design for the project at an acceptable level of areal flooding risks for the project which must take into consideration changes in the frequency and intensity of precipitations that could occur with climate change. Areal floods may be exacerbated by the project outside the project boundary by modifying draining patterns for heavy precipitations and increase risks for people and the environment during construction and operation. Appropriate measures to reduce risks (predominantly engineering), prepare for impact (predominantly environmental and social safeguards) and to include financial protection will need to be included.
Droughts are prevalent in the project area and the likely severity of impacts is moderate.	The Disaster Risk Management Plan should secure a design for the project at an acceptable level of drought risks for the project and address potential exacerbated risks for people and the environment during construction and operation, which must take into consideration changes in the frequency and intensity of droughts that could occur with climate change. Appropriate measures to reduce risks (predominantly engineering), prepare for impact (predominantly environmental and social safeguards) and to include financial protection will need to be included.

ASSESSOR DETAILS

Name of person who completed screening:	Villalba, Alberto Esteban (AVILLALBA@iadb.org)
Title:	
Date:	2015-01-29

COMMENTS

No Comments