

LACFIN ESMR
(Regional Sugar and Bio-Energy Program)
RG-L1019

Project Description

For this Program the IDB is considering the syndication of an A/B Loan (“the Facility”) for a borrower to be established as a SPV (the “Borrower”) by Latin American Capital Finance (“LACFIN”) and its parent LACFIN Holdings, to provide loans to the sugar and bio-fuel industries in Latin America and the Caribbean supporting trade finance and improvements in production and production efficiency. The Facility is expected to last 6 years including a 1 year repayment period. .

The total Program size is expected to be up to US\$ 500 million, composed of (i) up to US\$ 125 million in equity provided by LACFIN Holdings from the Reservoir Capital Group and (ii) debt financing provided by the IDB Facility in the form of a US\$ 75 million Senior A/B Loan in the initial phase, and up to US\$300 million of additional B Loans over time as the Program portfolio grows, ramp up criteria are satisfied, and sufficient B loan participant interest exists.

Financing offered by the Borrower within the Program will consist of short and medium-term structured loans, for amounts determined by the Borrower, to sugar mills and ethanol plants, sugar cane growers, and other sugar/ethanol/bio-energy related entities in Latin America and the Caribbean.

The sub-loans of the Program will largely consist of two main categories:

- 1. Short term lending to sugar mills:** for inventory and repo financing (trade finance) and pre-export financing such as annual working capital expenses and field maintenance costs, via annual revolving facilities to support efficient crop and factory production and exports/merchandising for sugar and ethanol.
- 2. Medium term lending to sugar mills and farmers:** LACFIN’s main target loan activity is to provide medium term lending to existing sugar mills and existing sugar cane fields to increase output, exports, and efficiency, including cane replanting and drip irrigation investment, as well as factory equipment, co-generation capabilities, and facilities investments such as warehouses.

Project Benefits

The objective of the Facility is to make positive return investments in projects and companies that fully comply with the environmental, social, health, safety, and labor (such terms together defined as “Environment and Social”) requirements of the IDB, as well as applicable national and state Environmental and Social laws and regulations.

In addition to sugar mills located in Mexico and Brazil, the proposed LACFIN Program has identified eight countries with potential for borrowing to support exports, energy efficiency, carbon credit, or sustainable bio-fuel expansion: Colombia, Dominican Republic, Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica, and Panama. .

Every sugar mill in these ten countries has the financial incentive to increase production and exports, as well as the efficiency of production and processing in their existing fields and facilities. However, due to the pronounced reduction in financial markets liquidity and credit availability occurring in 2008, commercial bank financing availability for mills and trade finance has been materially reduced in both amount and tenor. The IDB will therefore provide and mobilize funds to offset this reduction in commercial bank financing, and to fill the medium term financing gap.

The Program will use funds from the IDB's Sustainable Energy and Climate Change Initiative (SECCI) to cover the costs of technical feasibility studies for potential efficiency and bio-energy projects. The sugar mills and the bio-energy industries in these countries require a significant increase in efficiency to meet domestic demand and depend less on imported fuel.

The use of bio-fuels as an alternative source of energy can provide important environmental advantages such as reduced greenhouse gas (GHG) emissions and reduced regional dependency on fossil energy sources. These benefits, however, can only be realized if the projects are properly selected, designed and implemented; if not, they can have potentially significant negative impacts, primarily associated with intensive agricultural practices and natural resource use. The IDB's involvement in the Program is designed to improve these aspects by requiring the development and implementation of Environmental and Social Management Systems (ESMS) which will include a tool, the *Sustainability Guidelines*, for LACFIN to assess bio-fuel projects based on key sustainability criteria and conformity with IDB's Environment and Safeguards Compliance Policy (OP-703). The *Sustainability Guidelines* are being developed in collaboration with the SECCI group and the intention is to use them to assess potential projects in terms of impacts, risks and benefits.

Furthermore, LACFIN plans to promote the inclusion or expansion of co-generation facilities to existing sugar mills to increase their energy efficiency. This is only possible if the sugar mills have access to medium to long term financing that covers capital expenditures with extended payback characteristics.

Environmental and Social Compliance

The Environmental and Social Strategy was presented and approved by ESR on ESR 07-08, February 22, 2008.

Based on the Environmental and Safeguard Compliance Policy (OP-703) Directive B.13, and given that this is a financial intermediary project, this operation has not been

categorized. However, the nature of the impacts of the sub-projects can be diverse and their significance will depend on the project characteristics and the tenor of the operations (e.g., sugar mill upgrade, field maintenance, inventory financing, working capital). For example, short term loans such as repos and inventory financing do not present any productive activity, and thus the potential for environmental and social risks are minimal. Capital expenditure projects have the greatest potential to increase exports or the efficiency of the bio-fuels sector and, depending on the nature of the location, investment, and other conditions, could either present high or limited impacts or risks.

In its current project appraisal, credit review, and approval process, LACFIN's operations are required to comply with host country laws and regulations, including but not limited to those applicable to environmental, social, health and safety, and labor aspects. The IDB visited a sample of LACFIN's clients in Mexico and Brazil during the Environmental and Social Due Diligence (ESDD). It was observed that most of the sugar cane produced in the mills visited in Mexico and Brazil is destined for sugar production and a smaller portion of the yield is converted into bio-fuel (alcohol). In terms of resource use (energy and water) it was observed in both countries that the mills use the bagasse to generate their own electricity.

In Brazil, some mills have enough cogeneration capacity to sell surplus energy to the grid. In the farms visited, water for crop development is provided mainly by normal precipitation. However, some mills in Mexico and Brazil are beginning to use irrigation systems to improve their yields, apply fertilizers and use water more efficiently. In some mills, the water used to process the sugar cane is treated and reused to irrigate the fields. All Brazilian sugar cane farms visited during due diligence had environmental restoration projects principally aimed at restoring the Mata Atlântica (Atlantic Forest) by reforesting former hilly production sites with native species. Also, all the mills visited during the due diligence have environmental management systems in place.

In Brazil LACFIN currently only works with sugar mills confirmed by a large sugar trading company with long-standing local presence in the Northeast region of the country. Said trading company is aware of any local reputational issues or any reports of non-compliance by specific mills. In terms of labor regulations in Brazil, both state and national labor and environmental authorities regularly monitor compliance by mills and farms. Moreover, because of considerations of reputational risk in their community, sugar mill owners tend to be extremely conscious about environmental and social matters and retain an in-house specialist. There are NGO groups (e.g., Reserva Da Biosfera da Mata Atlântica MAB UNESCO, Fundação Abrinq – Programa Empresa Amigo da Criança, Crescendo com Responsabilidade Social, and Mercado Mata Atlântica), which provide certification to mills that comply with high standards. All mills visited appeared to have this certification.

The IDB team also met with farmers and union leaders during due diligence to inquire about current needs. In Mexico for instance, union leaders underscored the need to have credit programs that can work in tandem with crop cycle needs. They would like to have

access to medium term loans (currently not available) to upgrade farm equipment, apply fertilizers on time, and buy irrigation systems.

The project team also conducted a due diligence meeting at LACFIN headquarters in New Jersey. LACFIN management presented their credit procedures and collateral management system, as well as back office functions, which appeared to be professional and organized. To monitor the cane fields of clients LACFIN uses independent companies, who on a regular basis send agronomists and collateral managers to the fields and sugar mills to monitor their operations to ensure the LACFIN credit requirements are satisfied by clients. Their legal counsel presented how LACFIN ensures sub-borrowers' compliance with local regulations. LACFIN retains local counsels to review each sub-loan's documentation and to ensure compliance with all local requirements.

Environmental and Social Impacts and Risks

The potential key environmental, social, health and safety, and labor impacts associated with this Facility are those related to or caused by the specific sub-loans financed by LACFIN. These impacts can be diverse and their significance will depend on the project characteristics (e.g. medium term lending to sugar mills and farmers, extensive production of feedstocks, operation of mills and distilleries, product warehouses, etc.). The operations with the greatest potential of generating environmental and social impacts are the capital expenditure projects, to be limited to a determined percentage maximum of total assets. Other areas that could present some – albeit minimal - environmental, social, or health and safety concerns to LACFIN include short term lending to sugar mills for inventory financing and repo financing (trade finance). All these impacts and risks will be managed with the application of the EMS and the promotion of best practices and the best available technologies, both supported by the Program.

The environmental impacts of the sugar and bio-energy industry relate to the cultivation of the feedstocks and the processing of raw materials that they yield, and key impacts and risks associated with these activities could include:

Displacement of food production: The Program will not foster production of bio-fuels in competition with the production of food. The sub-loans of the Program will finance sugar cane and other raw materials except food crops. All these sub-loans must comply with the IDB Exclusion List and the sub-loan eligibility criteria to verify that the Facility will not promote conversion of traditional agricultural cropland to bio-fuel crop production. The current key target markets for LACFIN are Mexico, Central America, and the Northeast region of Brazil. Currently, LACFIN targets financing to existing sugar mills and farmers to increase existing field and factory outputs. Therefore, there is very limited extra land use involving food replacement. The primary target is not field expansion, but rather increased efficiency of existing mills and sugar cane fields.

Land use changes: An increase in the production of sugar/bio-fuel feedstock in the region could lead to competition with other land uses such as: displacement of crops and animal husbandry activities; potential resettlement; and impact on indigenous lands and

natural habitats. All sub-loans of the Program will be carefully screened using the EMS guidelines and eligibility criteria and IDB's Exclusion List, ensuring that the land used for feedstock production does not promote negative land use changes. Moreover, the main target of LACFIN will be for existing field and mill upgrades and maintenance, therefore the risk is minimal.

Agrochemical pollution: (i.e, herbicides, fungicides, pesticides, insecticides and fertilizers): Potential contamination of soils, groundwater, and surface water could result from the mishandling of agrochemicals such as: accidental spills; mixing; and storage. Agrochemicals should be handled by trained personnel and should be stored according to recommendations for hazardous materials. The Facility will support implementation of appropriate crop management practices, and the use of agrochemical products forbidden by international agreements will not be allowed (e.g., products contained in the IDB's Exclusion List). The use of biological pest controls and of organic fertilizers will be highly encouraged.

Soil erosion: Production and harvesting of sugar/bio-fuel feedstock may induce conditions for localized erosion on sloped terrain and in areas where soils are particularly loose. Soil erosion can be managed with the application of best practices which the project promotes (e.g., using crops suited to the soil conditions, applying organic matter such as crop residues to feed the soil, drip irrigation, etc.).

Air Emissions and GHGs: The major sources of emissions come from field burning during the harvest, mill operations, transportation of the sugar cane/feedstock and transportation and distribution of end products. The Facility supports the acquisition of modern equipment that has appropriate pollution control technology. Brazil is working on a protocol to eliminate the burning of sugar cane crops, (e.g., the State of Sao Paulo has set a target to eliminate crop burning by the year 2031, and under an accord signed by most of the Sao Paulo mills with the state government, over 80 percent of the state's cane area should end burning by 2014). Reduction of GHG depends on the way energy is generated and used in the conversion plant. Best practices can be applied to decrease the release of GHG (e.g., crop selection, soil management, harvesting systems, bio-fuel processing using co-generation, using best available technology, and using efficient boilers).

Odors: These can be a serious source of discomfort to the workers and nearby communities. Usually the major sources of odors come from the sugar/ethanol mill water effluents and distillery operations due to fermentation. A range of odor control measures are available for use in the industry.

Liquid effluents: These are generated from wastewater from feedstock washing, process wastewater from bio-fuel production, miscellaneous wastewater and storm water. Almost all industrial liquid effluents from the farms and mills can be treated on site, or can be recycled either in the production process or in the fields.

Water use: The production of feedstock (e.g sugar cane) and bio-fuels requires large volumes of water, which could lead to a depletion of fresh water sources. Water management for plantation crop production should optimize crop yield, while conserving the quality of water resources. Best agricultural practices and technology can be applied to use water more efficiently (e.g., recycling of process water, efficient irrigation systems such as drip and sub-foliar sprinklers).

Solid waste generation: The waste generated at the plantations and mills is derived from the crushing of the sugar cane, bagasse burning, decanting and filtration processes, mechanical workshops, outdated machinery, and agrochemical containers among others. Some of the solid waste generated in mills and sugar cane plantation facilities can be applied in crop growing areas, such as the cachaça, that can be used to condition the soil. Boilers can be fed with bagasse reducing considerably the amount of waste that needs to be discarded and generating energy that can be used at the mills or sold into the electric power distribution grid.

Hazardous materials: Several sources of hazardous materials are used in plantations (e.g., agrochemicals) and at the mills (e.g., caustic soda and sulfuric acid), that could represent a significant risk to employees and the environment. Hazardous materials should be securely stored and should be disposed of following local regulations. Employees should be trained in the use and disposal of these materials.

Forced labor: This is forbidden under the IDB's Exclusion List. During the Environmental and Social Due Diligence it was observed that the mills are very careful in not hiring workers younger than 16 years old. In the case of Brazil, both the State and Federal Secretariats of Labor perform continuous random visits to the mills to verify the mill's compliance with the law. Upon non-compliance, federal and state officers are entitled to fine the mill, and/or temporarily or permanently close it depending on the severity of the non-compliance.

Health and Safety: Manual sugar cane planting and harvesting may expose workers to injuries, and or physical and chemical hazards. Typical risks of accidents in sugar plantations and sugar mills are falls caused by slippery floors, stairs, and elevated platforms among others. Accidents occur in connection with the use of farm and mill equipment, agrochemical handling and application. These risks will be minimal since LACFIN clients tend to have good occupational, health and safety programs.

Disaster risk: Some countries in the region are in a vulnerable position with respect to hurricanes, wind damage and droughts. Generally though, loss of yields in the case of sugar cane is typically limited to no more than 10-20 percent.¹

Community Health and Safety: Potential health and safety issues during the production and processing of sugar or ethanol may include: exposure to agrochemicals; improper

¹ According to LACFIN Due Diligence: Other Countries, a report prepared by PROMAR International, June 2008.

disposal and use of packaging and containers; odors from the mill effluents; and exposure to air emissions from harvest burning.

Impacts and risks from LACFIN or sub-borrower activities outside of the financing:

There is the potential for Environmental and Social credit risks (financial exposure) to LACFIN, jeopardizing its sustainability and thus affecting its ability to repay the IDB. These risks refer to potential negative effects because of environmental and social aspects such as:

- non-performing loans due to environmental or social issues (e.g., clean up costs, law suits, fines, public opposition to a project, etc.);
- reduction in asset values due to environmental liabilities (e.g., pests, hurricanes, soil and water contamination, droughts, etc.);
- to a lesser degree, environmental, social, health and safety or labor liabilities associated with LACFIN's office facilities and/or operations; and
- activities of the sub-borrowers outside of those directly financed by the Facility that could present impacts and risks, especially those related to their environmental, social, health and safety, and/or labor practices.

Reputational risks could be associated with any potential involvement by LACFIN with a sub-borrower or sub-projects considered unacceptable to the IDB and/or that will face significant public opposition or concerns, such as those activities or practices in the IDB Environmental Exclusion List (e.g., deforestation, slave labor, forced labor, etc). No such involvement is contemplated.

Environmental and Social Management System (ESMS)

IDB participation will assure that LACFIN develops an Environmental and Social Management System. The ESMS will detail the policy, procedures and workflow that will be followed for all the investments. The system will be designed to allow maximum flexibility in reviewing any potential investment. LACFIN will appoint an environmental manager (and an environmental coordinator as needed) to manage the Environmental and Social review process. Prior to the initiation of a comprehensive due diligence and investment review for any prospective investment project, the Environmental Manager will categorize the project according to its level of environmental and social risk. The possible risk or impact categories are A, B, or C in accordance with the IDB's Environmental and Safeguards Compliance Policy. These categories depend on the level of potential environmental and social impact or risk. Upon completion of the Environmental and Social due diligence, the Environmental Manager will prepare an Environmental and Social management plan for all A and certain B category projects as the basic document describing the findings of the due diligence and defining the measures to be undertaken for Environmental and Social protection and management.

With respect to consultation with affected groups and public disclosure, the Facility will comply with IDB guidelines. Once a year, LACFIN will publish a web-based summary of the Environmental and Social performance of the Facility portfolio of all A and certain B category projects. For as long as the Facility is an investor in, or lender to a project or invested company, LACFIN will ensure permanent compliance with the Environmental and Social requirements. LACFIN's ESMS includes: (i) An Environmental Policy; (ii) An Environmental and Social Procedure; (iii) Roles, Responsibilities and Training; (iv) Procedures - Project Review and Approval Process (covering project review using the bio-fuel scorecard and the Environmental Exclusion List, risk categorization checklist, as well as identification, assessment, mitigation and monitoring potential environmental, social and health and safety impacts and risks, and the approval process necessary for all investment projects); and (v) reporting requirements.

Environmental and Social Requirements

As part of the Loan Agreement, the IDB will require that LACFIN's ESMS assures that all financed sub-projects comply with each of the following:

1. All applicable country environmental, social, health and safety, and labor regulatory requirements
2. All applicable aspects of the IDB Environmental and Safeguard Compliance Policy (OP-703), Involuntary Resettlement Policy (OP-710), Indigenous Peoples Policy (OP-765) and Natural and Unexpected Disasters (OP-704).
3. The Fundamental Principles of Rights at Work.
4. IDB's List of Excluded Activities for Non-Sovereign Guaranteed Operations (NSG), Trade Finance Exclusion List, and the SECCI approved *Sustainability Guidelines*.

Prior to financial closure the ESMS must be finalized in form and content satisfactory to the IDB. The ESMS must be fully implemented and operational before LACFIN formally finances any project transaction/project under the Facility. The IDB will require LACFIN be in compliance with the ESMS and all environmental and social provisions at the time of each IDB disbursement, and will require the issuance of an Environmental and Social Compliance Certificate by either LACFIN's representative or an external environmental consultant.

During the life of the Facility, LACFIN will be required to prepare and submit an Environmental and Social Compliance Report (ESCR), in frequency, form and content acceptable to IDB.

The IDB will monitor the Facility's environmental, social, health and safety aspects via internal IDB supervision, and will contract an external independent environmental

consultant to perform more detailed supervision during the life of the Facility as necessary

LACFIN will retain a qualified external environmental and social specialist for specific training purposes for their internal staff in implementing the EMS required by the IDB and to comply with IDB Environmental and Social requirements in general.