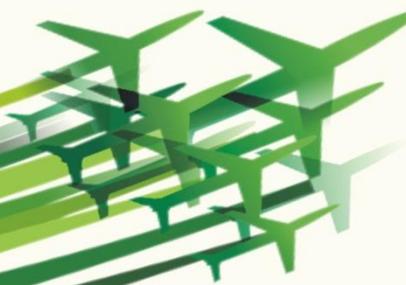




Destination Green



IDB

ICAO Symposium on Aviation and Climate Change, "Destination Green", 14 – 16 May 2013

IDB support to biofuels

Session 8 Financing and Assistance



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Contents

- Introduction
- Why IDB supports biofuels in LAC
- IDB experience in supporting biofuels



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Inter-American Development Bank - IDB

- **Oldest regional development bank (1959):** 48 member countries - 26 borrowers (with >50% votes in the Board); offices in all borrowing countries; finances both private and public sector projects, with or without sovereign guarantees. The IDB Group encompasses 3 institutions: the Inter-American Development Bank, the Inter-American Investment Corporation – IIC and the Multilateral Investment Fund - MIF.
- **Main source for LAC* regional financing** (1961-2012)
 - ✓ Approved loans/guarantees since its creation: US\$ 219 billion
 - ✓ Overall leveraged investments (project costs): US\$ 462 billion
 - ✓ Non-reimbursable technical cooperation (grants): US\$ 5.3 billion
- **Loans/guarantees to Energy Sector** (1961-2012): US\$ 30 billion
 - ✓ 17% of total Bank loans/ guarantees



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IDB financing **- Public-Private comprehensive coverage -**

**Full spectrum of Public-Private Structures to
meet Member Countries expectations and needs**



Attractive conditions according to project needs
(interest rate, longer grace periods, longer maturity – some cases 40 yrs)



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Available support instruments at IDB

- **Loans and guarantees:**
(US\$ 12 billion / yr for all sectors)
- **Non-reimbursable technical cooperation (TCs):**
(US\$ 800 million / yr for all sectors)
 - Trust funds established by donors and managed by the Bank (HSET/DOE, JSF/JPO Japan, EC, Spain, UK, Netherlands, France, Austria, Switzerland, etc), including operations from the Multi-lateral Investment Fund (MIF), Infracund and from the Global Environment Facility – GEF
- **More than a Bank:** seeking sustainable economical development of LAC; 25% of portfolio now directed to climate change & clean energy



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Why should IDB support biofuels?

- **As a development institution the Bank has a mandate to support investment programs in LAC that:**
 - ✓ **Contributes in a relevant way to sustainable social and economical development of its Member Countries**
 - ✓ **Reduce poverty and create jobs**
 - ✓ **Provides longer-term environmental benefits and mitigate climate change**
 - ✓ **Promotes sustainable rural development**
 - ✓ **Improve competitiveness, foster capacity-building, technology development and innovation**
 - ✓ **Optimize use of human and natural resources of its Member Countries**
 - ✓ **Stimulate public-private partnerships, among others**



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IDB Scorecard for Sustainable Biofuels

ENVIRONMENTAL

General

Yield (liters oil/ethanol per ha)
above 6000
above 4500
between 1500 and 4500
below 1500

Yield (GJ per hectare per year)
above 100
between 50 and 100
below 50

Cultivation

Former land use
No land area (algae and waste)
Degraded land
Under-utilized land or husbandry
Marginal land
Displaced cultivation or husbandry
Rainforest, primary forest
Peat land
Wetland
Ecological sensitive/protected area - Biological corridors

Crop Lifecycle
Replant greater than 3 years
Replant every year, no-till
Replant every year, low till
Replant, 1-3 years
Replant every year

Crop rotation/Crop mix
Nitrogen fixing crops used in rotation
Inter-cropping
No crop rotation

www.iadb.org/biofuelsscorecard

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Inter-American Development Bank – IDB

Press Release

July 23, 2008

Press Contact
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IDB lends \$269 million for three Brazilian ethanol plants

The Inter-American Development Bank will lend \$269 million for three new ethanol plants in south-central Brazil, in the **largest biofuel investment ever made by a development bank**. The Board of the Bank unanimously approved the financing today.

The three plants are being developed by Companhia Nacional de Açúcar e Álcool (CNAA), a joint venture formed by Brazilian sugar producer **Santelisa** Vale, U.S. private equity firms and **Global Foods**, a holding company registered in the Netherlands Antilles.

The **three new plants** are being built in the states of **Minas Gerais** and **Goiás**, far from the Amazon or any protected areas. Instead of purchasing land outright, CNAA will lease it from owners of medium to small-sized plots who decide they can earn a better return from sugar cane than they can from low-intensity pasture—the area's predominant land use at present.

The new plants will use **mechanized harvesting** for more than 90 percent of their acreage, and they will provide some 4500 high-quality permanent jobs. The plants will produce up to **420 million liters of ethanol** for the domestic market each year, and will generate their own electricity by burning bagasse (**56 MW each**).

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Inter-American Development Bank – IDB

News Releases

December 15, 2009

Peru Biofuel project to receive US\$25 million from the IDB

Combined ethanol refinery, sugar plantation and electricity plant will generate 500 permanent jobs for local communities in the Department of Piura, Peru.

An initiative of Maple Energy Plc, an energy company that has focused solely on [Peru](#) since 1994, listed on the London Stock Exchange's Alternative Investment Market and on the Lima Stock Exchange. The project is known as Maple Etanol, requires a **total investment of \$245.5 million** and will receive assistance from Netherlands development agency SNV, with extensive experience in developing inclusive businesses.

The project includes construction of a **130 million liters per year** sugarcane ethanol destillery. It includes 7,800 hectares of sugarcane on a 14,000-hectare property that Maple Energy purchased from the government of Piura and private individuals. The land comprises desert and/or arid areas that Maple Etanol will convert into highly productive land.

Mechanization, along with the use of efficient drip irrigation, will enable Maple Etanol to achieve yields of up to 153 tons of sugarcane per hectare. The project will also include a **37MW cogeneration plant** selling excess electricity to Peru's interconnected power system. In addition to the \$25 million from the IDB, Maple Etanol will receive cofinancing from other multilateral agencies and a private commercial bank. The Andean Development Corporation (CAF) will finance \$65 million, the Entrepreneurial Development Bank of the Netherlands (FMO) will finance \$25 million and Interbank \$25 million. The IDB loan will **have a term of 12.5 years with a 2.5-year grace period.**



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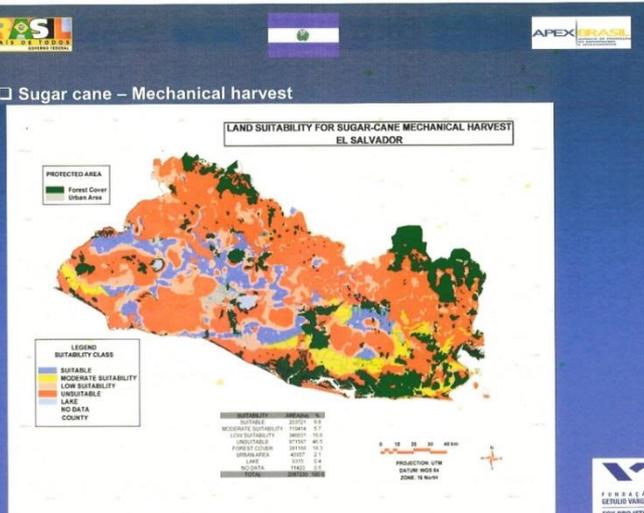
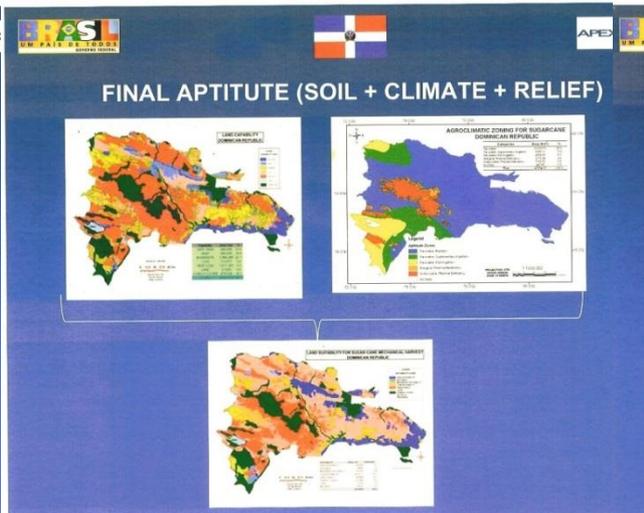
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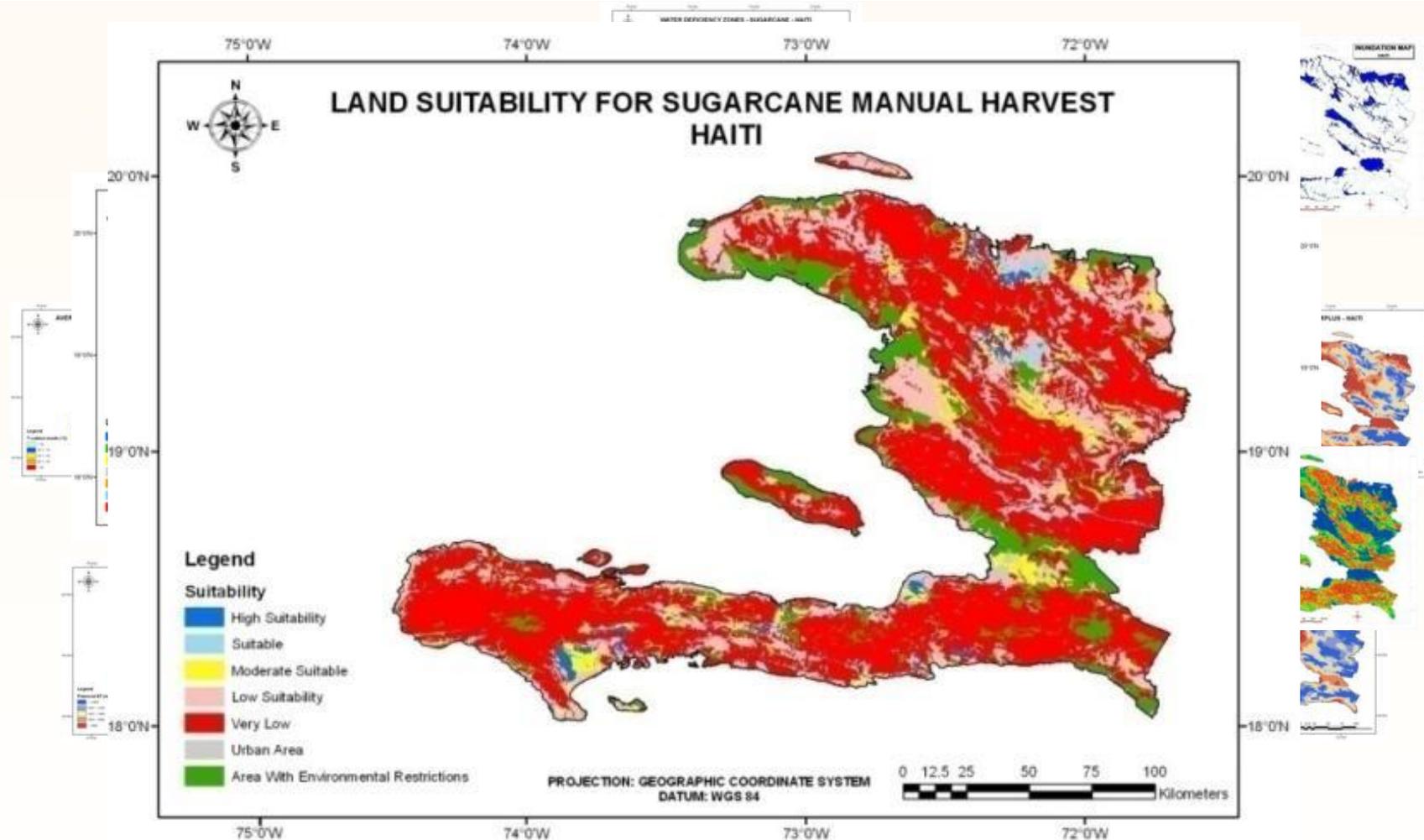
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Support to BR-US MOU on biofuels

Technical assistance (US\$1,500,000 SECCI funds) to implement studies and evaluations to support National Biofuels Programs in:

- **El Salvador (APEX-funded)**
- **Dominican Republic - DR (APEX-funded)**
- **Haiti, Guatemala and Honduras (IDB-funded)**
- **DR Phase II required to evaluate specific projects (IDB)**







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Case of Brazil

“renovAção” Program for requalification of sugarcane cutters)

A US\$500k SECCI Technical Assistance Operation for UNICA (Sugar Cane Industry Association) the major sugar and ethanol organization in Brazil with 119 sugar mills, responsible for aprox. 60% of the ethanol and sugar produced in Brazil:

- Full harvesting mechanization is expected by 2014 for all major sugar cane areas with <12% slope, and by 2017 in all other areas.
- During next 3 years about 26,500 sugar cane cutters will be displaced.
- Project target is requalify 7,000 workers/year: 3,000 through professional training for the sector and 4,000 for other sectors.

UNICA

UNIÃO DA INDÚSTRIA DE CANA-DE-AÇÚCAR

ETANOL • AÇÚCAR • ENERGIA

SÃO PAULO • BRASIL



JOHN DEERE

syngenta

CASE IH
AGRICULTURE

renovAção





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IDB Initiative for Sustainable Aviation Biofuels

- Aviation biofuels will be an important driver of sustainable socioeconomic development in LAC
- **1st activity:** Life cycle assessment of the production of biojet fuel from sugar cane (DSHC), co-financed with Boeing and Embraer: > 82% carbon emissions reduction



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RIO+20
 Conferência das Nações Unidas
 sobre Desenvolvimento Sustentável

Sustainable Aviation Biofuels

Espaço das Ideias Circulantes, Humanidade 2012



Life Cycle Carbon Emission and Sustainability Analysis

Andre Nassar
 ICONÉ

Rio de Janeiro
 18 June 2012

→ www.iconebrasil.org.br



Benchmark of cane-derived renewable jet fuel against major sustainability standards

Report

Coordinator
 André M. Nassar

Authors
 Paula Moura
 Gabriel Grunço
 Leila Harfuch

Sponsors:



July 20th, 2012

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- Support demonstration flights with Azul (1st ever with DSHC) and GOL (as part of ICAO Flightpath) during Rio+20 using different feed stocks.



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- Brazil Action Plan for **FIFA World Cup 2014 and Rio 2016 Olympics**: to reduce/offset carbon footprint of international and domestic flights through use of biojet
- **1st activity**: support effort led by Embraer to prepare a certification compliance plan to make possible commercial flights in Brazil (STC process) with E-jets aircrafts during the games



Azul+Verde
Renewable jet fuel



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PROJECT "AZUL+VERDE" PHASE II Motivation



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- Study on Camelina in Argentina: feasibility of cultivation in marginal areas in south of the country, includes analysis of economic, social and environmental issues.



CAAFI General Meeting 2011

November 30 – December 1, 2011
Georgetown University Hotel and Conference Center, Washington, DC
www.caafimeeting.com



CBPPM

II Congresso Brasileiro de Pesquisa em Pinhão-mansô

"Pinhão-mansô: focando em soluções sustentáveis para produção de biocombustíveis"
29 a 30 de novembro de 2011 - 1º Centro de Convenções da CNTC, Brasília-DF



Patrocinador Prata



Transportadora Oficial



Apoio



Promoção e realização



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- Feasibility study of the first LAC biojet production plant for ASA of Mexico



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THANK YOU

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