

The logo for BNDES (Banco Nacional de Desenvolvimento Econômico e Social) is located in the top left corner. It consists of the letters "BNDES" in a white, sans-serif font, positioned to the left of a white stylized graphic that resembles a house or a drop shape.

BNDES and the sustainability of ethanol sector

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Workshop on The Impact of New Technologies
on the Sustainability of the Sugarcane/Bioethanol
Production Cycle. May 14-15th 2009 - Campinas, Brazil



Presentation structure

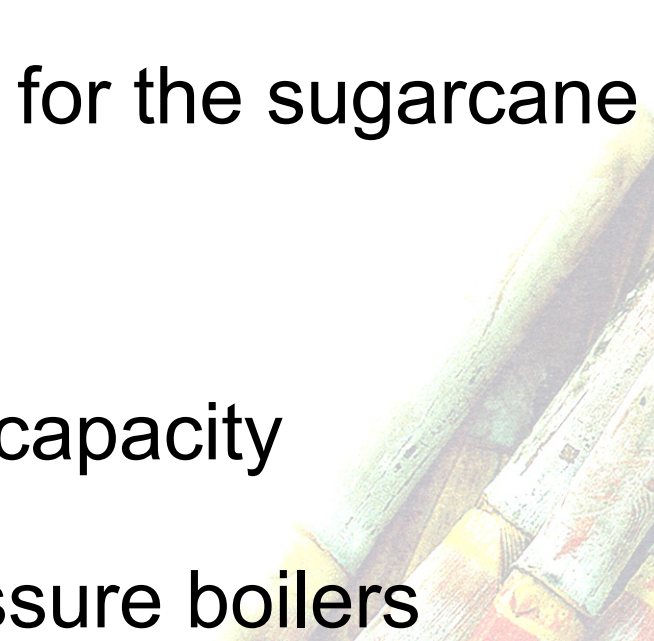
1. Main sustainability criteria
2. R&D policy and projects
3. Other sustainability issues



Main sustainability criteria



Economic Issues

- Agricultural productivity yield
 - Logistic efficiency: distance for the sugarcane supply
 - Industrial scale: increasing capacity
 - Energy efficiency: high pressure boilers
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- A close-up photograph of several sugarcane stalks is positioned in the bottom right corner of the slide. The stalks are cut and stacked, showing their characteristic green and brown colors and fibrous texture.

Environmental Issues

- Environmental rating (A, B e C)
- Precaution and mitigating measures
- Investment opportunities
- Licenses: prior, installation and operation

Social Issues

- Register of companies (Ministry of Labor): slave labor condition
- Investment opportunities (inside and outside of company community)
- New internal procedures: **Social & Environmental Guidelines**



Social & Environmental guides

- Preparation of 68 sector guidelines for internal procedures of various economic activities supported by BNDES
- Support for projects and business analysts
- Creation of database on social & environment evolution of the BNDES customers
- Indicative of sectoral policies, including innovation, development and regional suppliers
- Ethanol sector guideline: external consultation planned for **october/09**

R&D policy and projects



CRIATEC

- **Purpose:** Fund of R\$ 80 million to set up capitalization of micro and small innovative seed capital companies;
- **Management:** Implemented by Antera Gestão de Recursos and by Instituto de Inovação through 6 managers located in: Florianópolis, Campinas, Rio de Janeiro, Belo Horizonte, Fortaleza and Belém;
- **Priorities:** Investments in innovative companies (up to R\$ 6 million NR) that act in the sectors of IT, Biotechnology, New Materials, Nanotechnology, Agribusiness, and others;
- **Site:** www.fundocriatec.com.br

Credit lines

- **Innovator Capital:** support companies for construction of physical infrastructure and the tangible and intangible capital required to perform activities of innovation. Interest: TJLP + Risk py;
- **Technological Innovation:** support for projects of a technological nature of companies that seek the development of products and / or new and significantly improved (at least for the domestic market) and involving technological risk and market opportunity. Interest: 4.5% py.

- **Objective:** support projects that aim to stimulate technological development and innovation of strategic interest to Brazil, in accordance with the Federal Government policies;
- **Priority Areas:** Renewable Energy, Environment, Health, New Materials, Electronics and Chemistry;
- **Selection of Projects:** requests for support will be received in a continuous way by BNDES, and assessed on three separate dates throughout the year. Next rounds: **17/07** and **02/10**.

Portfolio Projects

R\$ Brazilian

	Contracted	Analysis	Total
Credit	121.481,10	-	121.481,10
FUNTE C	3.096,80	37.397,00	40.493,80
Total	124.577,90	37.397,00	161.974,90

Highlights

➤ Credit:

- **Alellyx and Canavialis:** genetic improvement
- **Zillor Group:** natural ingredients based on yeasts


➤ FUNTEC:

- **UFC/Padetec:** fermentation efficiency

Other sustainability issues



Other Activities

- Global Bioenergy Partnership (GBEP)
 - Roundtable on Sustainable Biofuels (RSB)
 - Agri-ecological Zoning
 - Satellite monitoring
 - **Green Book**
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- A decorative image of several bamboo stalks is positioned in the bottom right corner of the slide. The stalks are arranged diagonally, showing their natural green color and the characteristic nodes. The lighting is soft, highlighting the texture of the bamboo.

Green Book

- Prepared to be a instrument for international dialogue
- Demonstrate, in a science-based approach, the advantages and disadvantages of different raw materials used to produce ethanol
- Give information for decision-makers (private and public) about the economic and environmental benefits of production and use of sugarcane bioethanol
- Published in four languages: Portuguese, Spanish, French and English

