Global Bioenergy Partnership (GBEP)

Assessing and enhancing capacity for GBEP indicator evaluation in Colombia

GBEP Working Group on Capacity Building

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Food and Agriculture Organization of the United Nations

Overview

- Project goals
- Main actors
- Primary contrasts with Indonesia piloting
- Challenges faced
- Some preliminary findings
- Ongoing activities

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Project Goals

i. Assess and enhance the capacity of Indonesia and Colombia to evaluate bioenergy sustainability using the GBEP indicators and use them to inform bioenergy policymaking; and

ii. Learn lessons about how to apply the indicators as a tool for sustainable development and how to enhance their practicality.

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Primary Actors

Colombia:

- Universidad Nacional de Colombia, Manizales
  - Prof. Carlos Cardona
- International Center for Tropical Agriculture
  - Salomón Pérez Suárez
- Ministry of Agriculture – Colombia
  - Dr. Juan Fernando Gallego - Director
  - Represented by Biocombustibles program coordinator Juan Carlos Mejia Nariño

UNIVERSIDAD NACIONAL DE COLOMBIA
Sede Santafé de Bogotá

CIAT
Centro Internacional de Agricultura Tropical
International Center for Tropical Agriculture

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Contrasting methods

2 Countries, 2 Contexts, 2 Approaches

- Fundamentally different approach from Indonesia case
- **Indonesia** consultants took case study approach
  - Teams broken down by study site/supply chain
  - This led to questions of representativeness
- **Colombia** team seeks a more nationally-representative average value
  - This has led to more reliance on secondary data
  - This leads to questions of field validity
  - Teams are broken down by indicator
  - In-depth evaluation on individual indicators one at a time
  - Colombia primary data collection has proven challenging due to industry reticence/organization

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Project status

A story of stakeholder engagement/management

Government Ministries:

- Environment and Sustainable Development
- Agriculture and Rural Development
- Mines and Energy
- Health and Social Protection
- Commerce, Industry and Tourism
- National Planning Department

Private Sector:

- Oil Palm Investigation Center (CENIPALMA)
- Sugarcane Cultivators Associate (ASOCAÑA)
- National Biofuels Federation (FEDIOCOMUSTIBLES)
- Sugarcane Producers and Suppliers (PROCAÑA)
- Federation of Oil Palm Cultivators (FEDEPALMA)

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Project status

Why this level of engagement?

- Our researchers have not yet been able to secure very much direct access to fields, operations, workers in these industries
- Industry is extremely careful
  - Industry points to national competitiveness law.
- At the national scale, however, the private sector also has the most comprehensive data available at the moment
- Repeated meetings with industry groups to obtain data and vet methods

Project status

This approach poses potential problems to be managed

- Are these data reliable? Can they be independently verified?
  - 5 regional field visits planned for this month
- Repeated meetings with industry organizations could lead to:
  - Increased access to data and operations
  - Stakeholder “capture” of research methods and agenda
- FAO representatives will attend these meetings
  - Bringing other stakeholders to the table
  - Ensuring our shared vision of this work is maintained
- A big piece of this project is evaluation of *methods*

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Project status

Indicator 1 – Life Cycle GHG emissions

- First work product delivered;
- Calculations based on GBEP GHG Common Framework and IPCC guidelines;
- However, our internal review of the first draft identified some methodological inconsistencies;
  - **no co-product allocation** had been applied
- Our team provided extensive review, including explanation and citation for proper inclusion of allocation factors in this case;
- The second (current) submission of Indicator 1 makes use of co-product allocation and two calculation protocols;

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Project status

Indicator 1 – Life Cycle GHG emissions

Bioethanol

The GHG emissions vary between **16-86** gCO_2e/MJ

GHG savings: 15-80% over gasoline fuel

Biodiesel

The GHG emissions vary between **23-25** gCO_2e/MJ

GHG savings: 70% and more over diesel fuel

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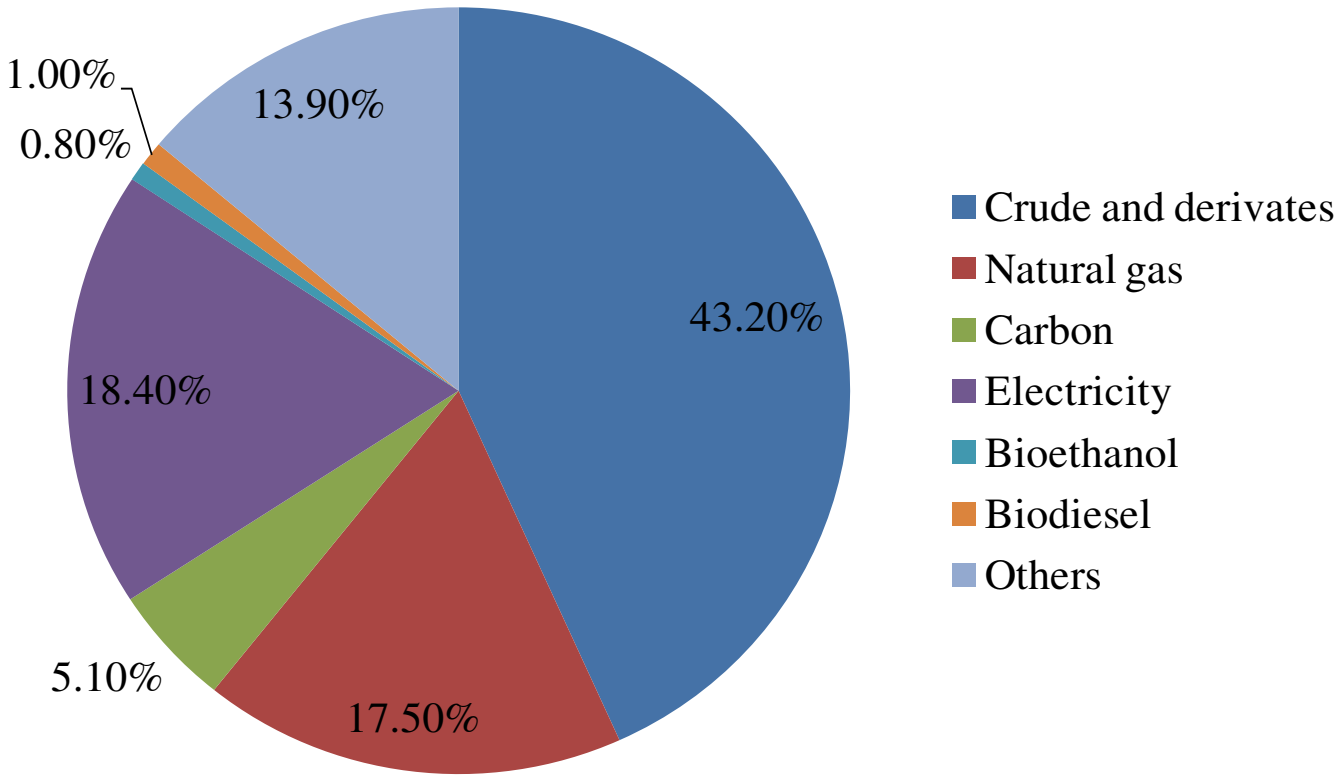
Project status - Colombia

Indicator 22 – Energy Diversity



Project status - Colombia

Other results of note:

- Production cost:
  - Bioethanol - 0.026-0.030 USD/MJ (estimated)
  - Biodiesel - 0.018-0.021 USD/MJ (estimated)
- Land use change:
  - Sugarcane area **has not changed** from 2000 to 2012
  - Oil palm area increased by 22% from 2000 to 2010 – mostly at the expanse of rice and pasture.
- Land and ownership structure varies regionally:
  - Palm bunches supplied to mills from own plantations
    - North zone – 40%; Central zone – 20%; Eastern plains zone – 43%

Meetings today/tomorrow

Cali, Colombia – International Center for Tropical Agriculture (CIAT)

- Review and receive feedback on the current status of each indicator measurement
- Secure input – and further collaboration – from invited industry and NGO stakeholders
- Develop a workplan for successful completion of the project
- Prepare for project conclusion workshops

Upcoming meetings

Bogotá: 5-12 December, 2012

- **Technical Sessions**
  - Consultants present work in detail, discuss methodologies
  - Outputs of key messages and monitoring recommendations for workshops
- **Project Conclusions Workshops**
  - Discuss high-level results and recommendations with wider audience
  - Broad outreach in governments and industry, working to broaden in NGO
  - Break-out sessions on key issues
- **Regional Forum**
  - Invitations to >10 governments and International Organizations in the region
  - Sharing of lessons, outcomes, experiences among governments
  - Building on existing networks and momentum
  - Harmonization of analysis/policy, role for GBEP, priorities for cooperation

Thank you!

For further information please contact:

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Further information are available at:

http://www.globalbioenergy.org

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