Jamaica's Bio-fuels Experience

Current Status and Prospects

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BIO 2010 V Seminario Latinoamericano y del Caribe de Biocombustibles olade IICA FAO GOBIERNO DE CHILE MINISTERIO DE ENERGIA BRASIL UM PAÍS DE TODOS









Outline

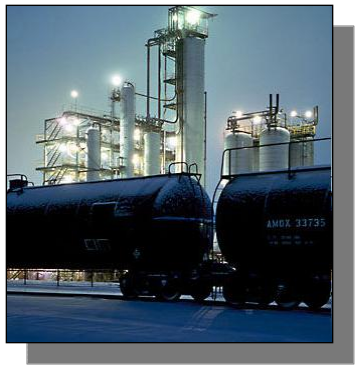
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Introduction

- Petroleum imports meet over 90% of country's energy needs
- Petroleum imports
  - Volume fairly stable (22.1 Mbbls in 2009)
  - Value vulnerable to international market changes (US$1.35bn in 2009)
  - 24% of GDP (2009)
- High Concentration (96%)
  - Transport: 38%
  - Bauxite/alumina: 35%
  - Electricity generation: 23%
  - Per capita consumption: 7.6 boe
    - Excluding the bauxite sector: 5.0 boe



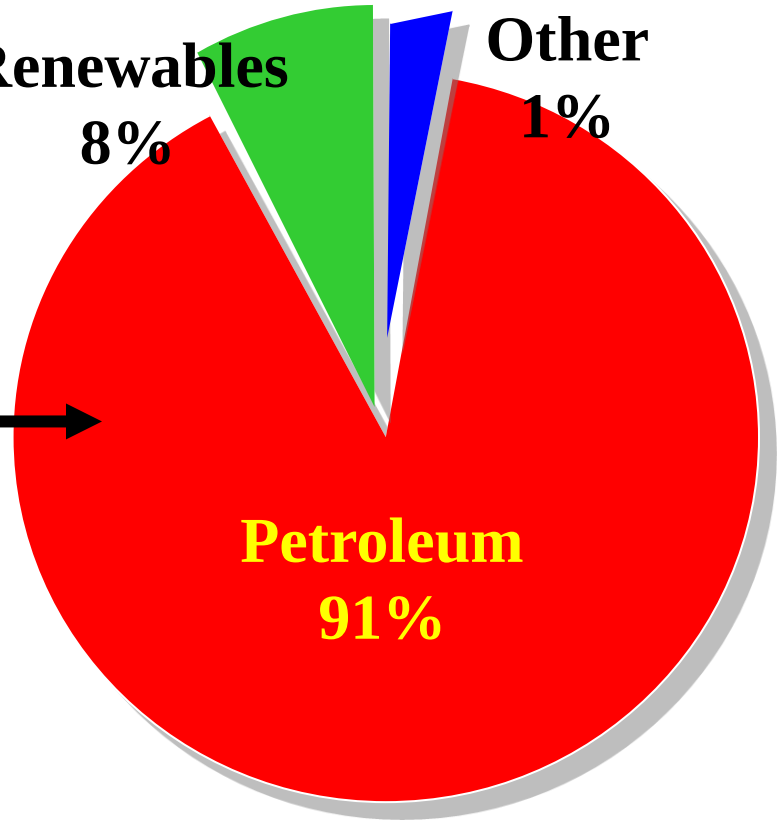






Dependence on Imported Oil

- Mexico
- Venezuela
- Ecuador
- Trinidad*



Need To Break The Petroleum Stronghold









Policy Development

National Development Plan

- "Developed Country Status by 2030
- Long-term strategies for all sectors

National Energy Policy 2009-2030

- Policy goals vital to achieving sustainable energy solutions
- Addendum policies address specific areas
  - Energy Conservation and Efficiency
  - Renewable Energy
  - Bio-fuels
  - Carbon Emissions Trading
  - Waste to Energy









Policy Development – Draft Bio-fuels Policy

- Bio-fuels development should meet the national vision and objectives
  - Sustainable bio-fuels industry
  - Meeting local demand for bio-fuels
  - Contributing to rural economic development
  - Generating employment opportunities
  - Reducing environmental degradation
  - Harnessing indigenous energy sources









Policy Development – Draft Bio-fuels Policy

Bio-fuels Policy Objectives

- Reduce imports of petroleum products
- Contribute to cleaner environment
- Increase and diversify indigenous agro-industry earnings from ethanol, biodiesel and co-products
- Create an inextricable link between the sugarcane industry and electricity supply to the national grid
- Increase bio-fuels production and provide safeguards for food security






Current Status – Ethanol Project (E10 Blend)

Blending ethanol with gasolene

- E10 Pilot Project successful (May – Nov 2006)
- E10 blends launched
  - E10-87 (Nov. 2008)
    - Sections of country
  - E10-90 (Nov. 2009)
    - Island-wide
- Blend was mandated (March 1, 2010)

Prospects exist for higher blends












Current Status – Biodiesel Project

Biodiesel not a new concept

PCJ – CERE embarked on Small Scale Biodiesel Project – SBP (July 2009)

- Research continues on efficacy of B5 biodiesel blend
- Project was estimated to cost J$22.1 million
- Project was expected to produce 28,000 gallons of biodiesel annually
- Agricultural agencies invited to partner with PCJ on SBP (Jan 2010)









Support Mechanisms

- Local and international partnerships
  - Trilateral Agreement signed with USA & Brazil (Nov 2008)
  - PCJ and The Ministry of Agriculture and Fisheries R&D Division – Research Partnership Agreement (July 2010)
- Regional and international Organizations
  - US Embassy
  - Brazilian Embassy
  - OAS
  - UNECLAC
  - IDB
  - UNDP
  - Other external stakeholders









Support Mechanisms cont'd

Incentives for renewable energy

- Importation of energy efficient and renewable energy equipment

Legislative & Regulatory Framework

- Acts, Codes, Standards & Labeling
  - National Health and Safety Code (draft HSE)
  - Gas Station Certifications, licensing and gas pump labeling
  - Petroleum Quality Control Act amended

Institutional Framework

- Special Committees and Task Force
- Bureau of Standards (BSJ)
- National Environment and Planning Agency (NEPA)









Future Engagements – Sugarcane Industry

Divestiture of sugarcane estates

- Contribution of bagasse to electricity needs

Sugar Cane Production

- Total cane required to meet targets is 3.3 million tonnes and 43,000 ha
- Over 50,000 ha of cane lands in Jamaica.
- Average cane yield in Jamaica was approx 55 ton/ha (2008)
- Demand for ethanol – 70 million litres annually



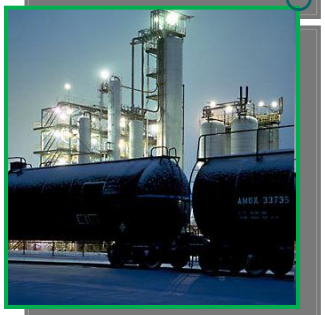
Future Engagements – Sugarcane Industry

- Land use policy
- Technological enhancements
  - Mechanization
  - Logistics of transporting products
- Environmental benefits
  - Potential for Carbon Credits









Concluding Remarks

- Fossil fuel dependence poses an economic challenge
- Sustainable solutions available and achievable
  - Vision 2030 providing direction
  - Policies, legislations and institutional support provided
  - Policy harmonization integral (National Transport Policy)
- Conducive environment for investment and participation
- Government commitment to fuel diversification and the development of the biofuels industry









Gracias

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