Linkages between Biofuels, Trade and Sustainable Development

ICTSD Dialogue on Biofuels, Trade and Sustainable Development

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Moustapha Kamal Gueye
UNEP Economics and Trade Branch
Overview of Global Bioenergy Trade
Policy drivers

- Blending targets - at least 17 countries and 36 states/provinces have stimulated biofuel demand
  - EU: mandatory target that biofuels must provide ten per cent of member states’ transport fuels by 2020.
  - US: Renewable Fuels Standard (RFS) targets 7.5 billion gallons (28.4 billion litres) of renewable fuels by 2012.
- EU agriculture sector reform and Sugar Protocol reform (36% reduction in sugar price over 4 years)
  - will likely lead producing countries (Mauritius, Jamaica) to shift to ethanol
- Oil prices and rising oil import bills
- Climate change concerns
## Production Costs of Ethanol

<table>
<thead>
<tr>
<th>Country</th>
<th>Feedstock</th>
<th>Production cost (US$/litre)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brazil</td>
<td>Sugar cane</td>
<td>0.20</td>
</tr>
<tr>
<td>India</td>
<td>Sugar cane</td>
<td>0.40</td>
</tr>
<tr>
<td>United States</td>
<td>Maize</td>
<td>0.80</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>Sugar beet</td>
<td>0.97</td>
</tr>
<tr>
<td>Europe</td>
<td>Wheat</td>
<td>0.76</td>
</tr>
<tr>
<td>Zambia</td>
<td>Sugar cane</td>
<td>0.50</td>
</tr>
</tbody>
</table>

Goldemberg et al. in ICTSD, 2006. Sources: UK DTI 2003; USDA, 2004
## Ethanol exporting/importing countries in 2005

<table>
<thead>
<tr>
<th>Import</th>
<th>%</th>
<th>Export</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>18</td>
<td>Brazil</td>
<td>48</td>
</tr>
<tr>
<td>Japan</td>
<td>11</td>
<td>USA</td>
<td>6</td>
</tr>
<tr>
<td>India</td>
<td>8</td>
<td>France</td>
<td>6</td>
</tr>
<tr>
<td>Germany</td>
<td>8</td>
<td>S. Africa</td>
<td>6</td>
</tr>
<tr>
<td>Netherlands</td>
<td>8</td>
<td>China</td>
<td>5</td>
</tr>
<tr>
<td>UK</td>
<td>6</td>
<td>UK</td>
<td>5</td>
</tr>
<tr>
<td>Korea</td>
<td>5</td>
<td>Netherlands</td>
<td>4</td>
</tr>
<tr>
<td>France</td>
<td>4</td>
<td>Germany</td>
<td>2</td>
</tr>
<tr>
<td>Others</td>
<td>32</td>
<td>Others</td>
<td>18</td>
</tr>
</tbody>
</table>

*Source: Walter et al., 2007*
International Trade Issues
International Trade Issues

- HS classification
- Tariffs and quotas
- Market access
- Technical standards
- Subsidies
- Sustainability criteria and certification
- Biofuels as environmental goods
Before 2005, both biodiesel and bioethanol used to be traded as agricultural products.

In 2005, the World Customs Organization decided to put “biodiesel” in (Chapter 28-38) Section VI on “products of chemical and allied industries” (HS 382490).

Bioethanol is still traded under HS 2207 in Chapter 22 on “beverages, sprits and vinegar”, as an agricultural product.

While ethanol and biodiesel essentially serve similar purposes, they are subject to different trade rules.

Implications for negotiation forum in the Doha round and modalities of tariff liberalisation.
Tariffs

- The United States taxes ethanol imports at $0.18 per litre ($0.54 per gallon).

- In the EU tariff duties are relatively low for biodiesel (6.5 percent), whereas tariffs on ethanol are to an AVE of 40-100 percent depending on the price of ethanol - the lower the price of ethanol, the higher the ad valorem equivalent (Jönsson, 2007).

- Brazilian exporters face tariffs that add 25% to the price of their product in the United States, and over 50% in the European Union.

- Without tariff barriers of standards, about 70% of EU biofuels market would be supplied by imports (Van Houtte, European Commission, DG Development, 2006)
Tariff Preferences

- The Caribbean Basin Initiative (CBI) provided tariff-free import of ethanol from Central American countries and the Caribbean.

- Imports produced from foreign feedstock are allowed up to 7 percent of US demand in the previous year.

- CBI countries may import feedstocks or fuel from other countries (e.g., from Brazil) for export to the United States, as long as 35 percent of the value of the product is produced in a CBI country.

- The Central American Free Trade Agreement (CAFTA) will supersede CBI when it takes effect for countries that are party to it, potentially including five Central American countries and the Dominican Republic.

- EU grants special preferences to African, Caribbean and Pacific (ACP) countries under the Everything But Arms initiative.

- Biofuel imports into the EU under preferential trading arrangements nearly doubled between 2002 and 2004, to 3.1 billion litres
The total of subsidies provided by OECD governments in 2006 amounted to at least US$ 11 billion dollars (Global Subsidies Initiative, 2007).

Subsidies are governed by the Agreement of Agriculture (AoA) and the Agreement on Subsidies and Countervailing Measures (ASCM).

Article 25 of the ASCM requires the notification of trade-distorting subsidies, “to enable other Members to evaluate the trade effects and to understand the operation of notified subsidy programmes.”

The ASCM considers subsidies, i.e. excise taxes, grants, production support from the government, that confer competitive advantage as actionable and falling under the jurisdiction of the ASCM.

Lack of transparency and non-compliance with the ASCM.
Biofuels as Environmental Goods

- The EGS negotiating mandate does not exclude discussion of agricultural products but Members so far only proposed industrial items.

- Canada initially included hydrogen and bio-diesel.

- New Zealand: methanol and bio-diesel-later dropped because they fell under ‘Chemicals category.

- Brazil has informally proposed bio-fuels and bio-fuel technologies as EGS.

- US-EU informal 2007 proposal to liberalise 43 climate friendly goods not including ethanol.
Sustainability Criteria and Standards

- Legitimate concerns: WTO rules allow technical standards and regulations on conditions of transparency and non-discrimination
- But need not erect unnecessary barriers to trade
- International initiatives likely to be more welcome than unilaterally imposed criteria
- Multistakeholder processes more promising (e.g. Roundtable on Sustainable Biofuels)
Biofuels and Broader Sustainable Development Issues
Global energy demand is projected to grow by more than half by 2030, with oil, gas and coal together accounting for 83% of the growth in energy demand.

Bioenergy contributes to energy security by:

- diversifying sources,
- increasing the number of producing countries;
- ‘homegrowing’ energy, lowering import bills which are particularly a drain on developing country budgets.

Source: IEA, courtesy Martina Otto
Biofuels, Climate Change and Environment

- Energy balance
- Carbon balance
- Biodiversity
- Water and land use

Efficiency: Stationary use of biomass (e.g. biogas) - to generate heat and/or electricity is typically more energy efficient than converting biomass to a liquid fuel for transport (UNEP).

Source: UNEP/IEA, 2008
Current land use for biofuels is only about 2% of cropland globally.

To achieve a 10% share of biofuels in transport by 2030 with current technologies, an area of about 8 - 36% of global cropland would be required (UNEP International Panel for Sustainable Resource Management).
Exports versus Domestic Consumption

expanding energy access in developing regions: eliminating energy poverty; reduced health impacts from indoor air pollution

powering secondary industries, businesses, infrastructure: economic diversification, growth and sustainability

revalorizing agriculture: improved productivity and incomes

Courtesy Martina Otto
Concerns over Fairness

- Declaration of African Civil Society Organisations (CSOs) to the 3rd Session of AMCEN on Climate change Nairobi, Kenya, 22nd – 24th May 2009:

  “African governments should not embark on any projects to generate agrofuels for export to industrialized countries. Large-scale production of biofuels complicates and worsens a number of social and environmental problems and offers limited prospects for economic growth.”
UNEP is working with UN sister agencies, private sector, NGOs and governments on:

- Sustainability criteria and certification options

- Research and tools to provide decision-makers in governments and the private sector with appropriate information

- Creating markets for renewable energy development and developing business models that involve local communities and aim at achieving development benefits