



SEP • 19-21th • 2011
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CNPq

Workshop on
Quantifying and Managing Land Use Effects of Bioenergy

The Three Pillars to Operationalizing Biofuels Sustainability Standards in Agricultural and Forest Landscapes

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3 pillars

Pillar 1

- Methodologies to assess biofuels sustainability

Pillar 2

- **Socioenvironmental Governance Mechanisms**

Pillar 3

- **International Harmonization of Standards**

Socioenvironmental Governance

- Sustainability – intrinsic and extrinsic qualities (not verifiable)
- Credence attributes – “only if you can prove” (additional costs)
- **How will this information be accessed and transmitted?**
 - **Private Voluntary Certification**
 - 3rd party certification – operationality vs. stringency
 - Challenge to cover indirect effects
 - Seek for legitimacy – conformation strategies
 - **Public Regulation**
 - Challenge to implement regulation (cost, operational capacity)
 - Problems with international laws (WTO)
 - **Private-Public Governance Mix**
 - Meta-standard approach
 - Accreditation of biofuels specific standards

Private Voluntary Certification

- **Roundtable Sustainable Biofuels (RSB)**
 - Non-Feedstock specific
 - Comply local law or go beyond (which is more stringent)
 - Farmers, refiners, retailers, academia, governments and NGOs
 - 2011 – launched certification system (challenges to apply)
 - Regional diversity (especially for social criteria)
 - Diversity of feedstock and conversion processes
- **Better sugar initiative (BSI - Bonsucro)**
 - Feedstock-specific – sugarcane products
 - WWF, UNICA, Coca-Cola, Raízen, BP, Toyota
 - Operational advantages – one feedstock and few processes
 - Raízen (Shell-Cosan) Mill certified in 2010
 - UNICA support to implement on affiliated mills
 - First potential large-scale certification for sugar-cane ethanol

National regulation of Biofuels Sustainability

- **Brazil**

- No biofuels-specific sustainability regulations (end users)
- No specific environmental and labor law applied on biomass production (enforcement issues)
- Agro-ecological zoning plan (2009) – Not enforced against individual land owners, except for loan restrictions
- Public-private voluntary initiatives:
 - UNICA-Sao Paulo State Green protocol – burning and good practices
 - National Commitment for the Improvement of Labor Conditions in Sugarcane Production (2009) – 30 practices beyond legal obligation
- Note the important role of private initiatives in light of enforcement issues, particularly to access foreign markets

National regulation of Biofuels Sustainability

United States

- **Renewable Fuel Standard – RFS2 (2007)**
 - Mandates - categories for GHG emissions reduction (FASOM/FAPRI for ILUC)
 - Assumes cross-compliance with all other environmental laws and regulations
 - EPA triennial report on environmental impacts of domestic production
- **California Low Carbon Fuel Standard – LCFS (2009)**
 - Focus on GHG emissions (GTAP for ILUC) – recommend good practices
 - Requirements encompass all fuels, unlike RFS
- **Private Standard Development**
 - The Council for Sustainable Biomass Production (CSBP)
 - Provisional standard finalized June 2011 for biomass producers
 - Final standard issued May 2012 for both producers and consumers
 - 3 rounds of field testing water, biodiversity, soil, labor and GHG
 - Focusing on whether existing tools can be used, at least in part
 - GHG Task Force to study how to integrate with existing direct emissions models (e.g., GREET) - no consideration at present of ILUC
 - Observers include US DOE, US EPA and USDA (also partially funds)

European Union Regulation

Renewable Energy Directive – RED (finalized 2009)

- Mandates and emissions reduction targets (EU and Member States)
- Production Incentives - Cross-compliance with agricultural and plant health laws enumerated in Annex II of the CAP and the CAP's requirement of Good Agricultural and Environmental Condition (GAEC)
- The Commission must report by 2012 and every 2 years thereafter on Member State protection of soil, water, and air, and in protecting lands that cannot be converted
- European Commission - Private Standards accreditation (2011):
 - 7 standards - BONSUCRO, RSB, ISCC, RTRS, 2BSvs, Abengoa, Greenenergy
- Challenge ahead to align country level regulations with RED
 - Industry complaints that need harmonization because of individual requirements of Member States
- No EU standards for bioelectricity—recommendations to MSs

International Institutions

- **WTO** - no specific rules for biomass (agricultural and environmental)
 - Limitation to public regulation
 - Low risk – environmental and biodiversity requirements
 - High risk – economic development and social welfare
 - Limitations to private certifications (FSC case)
 - No barriers to other certifications entrance
 - No trade (non-tariff) barriers based on private certifications
 - No country discrimination on the label
- **UNFCCC** – possibility of including sustainability standard in a Post-Kyoto treaty
 - REDD+ role in a climate treaty - negotiations are underway to include "non-carbon" sustainability requirements (especially solid fuels)
- Development of international standards – facilitate acceptance and reduce frictions with international institutions:
 - International (ISO/IEC 65); EU (CEN/TC 335); US (DOE-ANSI)

Private and Public – Governance Trends

- Different approaches to apply sustainability standards:
 - US not demanding sustainability certification (only for GHG emissions)
 - By now, regulation centralized on public agencies (federal and state)
 - EU already requiring sustainability report (soil, water, biodiversity..)
 - Consider existent private standards from forest and agriculture sector
 - Accreditation of biomass private standards (RSB, BONSUCRO and others)
 - More integrated private-public approach – “cross-fertilization”
- Nonexistence of applicable private standards for indirect effects
 - ILUC – problematic due to geographic scope and complex externalities
 - Division of labor – public on indirect effects; private on direct effects
- Possible approaches to implement international governance:
 - Voluntary certification – beyond legal obligation
 - National regulations – harmonization international standard with local laws
 - International agreement – “minimum sustainability level”
 - Complementary approach – more effective to cover biofuels specificities



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