



# The Global-Bio-Pact Project




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WIP – Renewable Energies, Germany

**International Conference**  
**“Socio-economic Impacts of Biofuels and Bioproducts”**




Brussels, 29-30 January 2013


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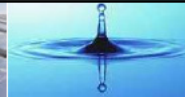


# Global-Bio-Pact

- Supported in the 7th Framework Programme of the European Commission
- Coordinator: WIP Renewable Energies
- Duration: 3 years
- Start: February 2010

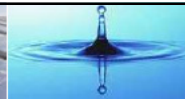




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## Global-Bio-Pact Idea


Development and harmonisation of sustainability schemes  
for biofuels and bioproducts  
to prevent negative socio-economic impacts



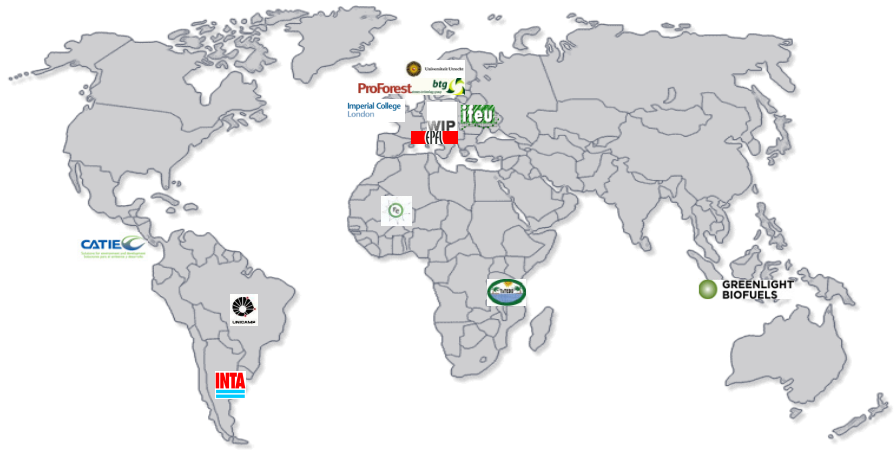
## Objectives


- Identify socio-economic impacts of **feedstock production**
- Identify socio-economic impacts of **conversion chains**
- Analyse impacts on **food security**
- Investigate link: socio-economic and **environmental impacts**
- Review current and future **trading** schemes
- Analyse **public perception**
- Make recommendations for **certification**






## Global-Bio-Pact Partners






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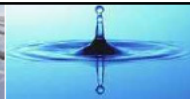


## Global-Bio-Pact – Partnership

- **WIP – Renewable Energies**, Germany
- **Imperial College London**, United Kingdom
- **Utrecht University**, The Netherlands
- **BTG Biomass Technology Group**, The Netherlands
- **Institute for Energy and Environmental Research**, Germany
- **ProForest**, United Kingdom
- **Roundtable for Sustainable Biofuels**, Switzerland
- **Universidade Estadual de Campinas**, Brazil
- **National Institute for Agricultural Technology**, Argentina
- **Tropical Agricultural Research and Higher Education Center**, Costa Rica
- **Tanzania Traditional Energy Development and Environment Organization**, Tanzania
- **Mali-Folkecenter**, Mali
- **Greenlight Biofuels Indonesia**, Indonesia




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## Directive 2009/28/EC on the promotion of the use of energy from renewable sources: Article 17

L 140/38

EN

Official Journal of the European Union

5.6.2009

The Commission shall, every two years, report to the European Parliament and the Council on the impact on social sustainability in the Community and in third countries of increased demand for biofuel, on the impact of Community biofuel policy on the availability of foodstuffs at affordable prices, in particular for people living in developing countries, and wider development issues. Reports shall address the respect of land-use rights. They shall state, both for third countries and Member States that are a significant source of raw material for biofuel consumed within the Community, whether the country has ratified and implemented each of the following Conventions of the International Labour Organisation:

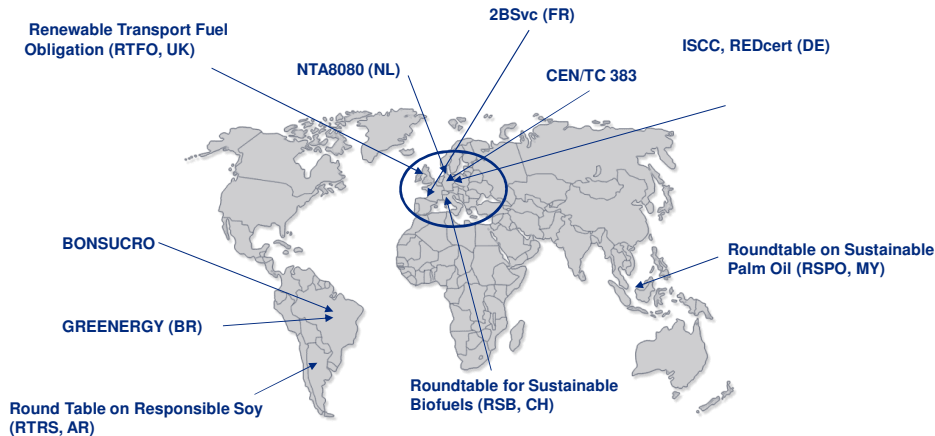
- Convention concerning Forced or Compulsory Labour (No 29),
- Convention concerning Freedom of Association and Protection of the Right to Organise (No 87),

9. The Commission shall report on requirements for a sustainability scheme for energy uses of biomass, other than biofuels and bioliquids, by 31 December 2009. That report shall be accompanied, where appropriate, by proposals for a sustainability scheme for other energy uses of biomass, to the European Parliament and the Council. That report and any proposals contained therein shall be based on the best available scientific evidence, taking into account new developments in innovative processes. If the analysis done for that purpose demonstrates that it would be appropriate to introduce amendments, in relation to forest biomass, in the calculation methodology in Annex V or in the sustainability criteria relating to carbon stocks applied to biofuels and bioliquids, the Commission shall, where appropriate, make proposals to the European Parliament and Council at the same time in this regard.

Article 18



## Ongoing Sustainability Initiatives



## Socio-economic Impacts of Biomass Production and Use

- Gender
- Employment opportunities
- Working conditions
- Health
- Food security
- Food and feed prices
- Land issues: competitive uses
- Land issues: conflicts
- Transitions from small to large production
- Change in traditional use and knowledge
- Rural development, local energy provision
- ... etc.

## Case Studies

- **Argentina:** Soy production and conversion
- **Indonesia:** Palm oil production and conversion
- **Tanzania / Mali:** Jatropha cultivation
- **Costa Rica / Brazil:** Bioethanol production from sugarcane
- **EU / N-America:** 2nd generation Biofuels

### Case study levels

- Local/company level
- Regional level
- National level



## Case Study: Soy in Argentina

- Production systems mainly large-size
- Soy farmers usually have no influence on the use of the soy beans
- Main product of soy are proteins
- Only 15-25% of the soy bean is oil
- 99% genetically modified

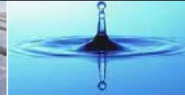


→ **Which sustainability criteria can be applied here?**

## Case Study: Jatropha in Afrika

- Case Studies: small to large scale projects in Mali and Tanzania
- Jatropha – a miracle plant?
- High yields only on good soils with sufficient water and nutrient availability
- Interest of large companies in big plantations
- Jatropha is still to less investigated (breeding)
- Wrong promises (especially to smallholders) have to be avoided

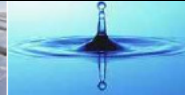




## Case Study: Sugarcane in Latin America



- Brazil: longest history in ethanol use in transport applications
- Costa Rica: no ethanol use for biofuels so far; ethanol mainly from molasses; country with high biodiversity

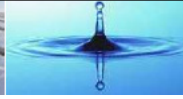


## Case Study: Palm oil in Indonesia



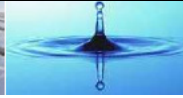
- World's leading exporter of palm oil, few up-stream processing to biofuels and bioproducts
- Case studies in North and South Sumatra (Comparison of ownership models)
  - Privately owned estates with associated smallholders
  - Government owned plantations
  - Independent smallholders





## Main outcome of Global-Bio-Pact

- Assessment of existing socio-economic principles, criteria, and indicators
- Elaboration of a set of socio-economic impact indicators
- Test audits
- Recommendations for EU legislation
- Recommendations on harmonisation of certification schemes



## THANK YOU VERY MUCH FOR YOUR ATTENTION!



### Contact

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