



Introduction & Scope

Workshop & Business Forum on Sustainable Biomass Production for the World Market

Organised by IEA Tasks 40, 30 & 31 with UNICAMP

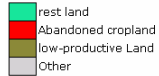
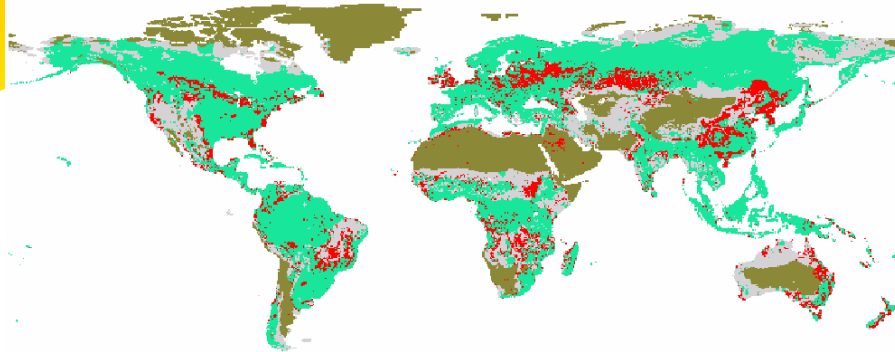
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Copernicus Institute

Sustainable Development and Innovation Management



Global potentials are large...; but need to be developed

Agricultural land: <100- >300 EJ

Marginal lands: <60- 150 EJ

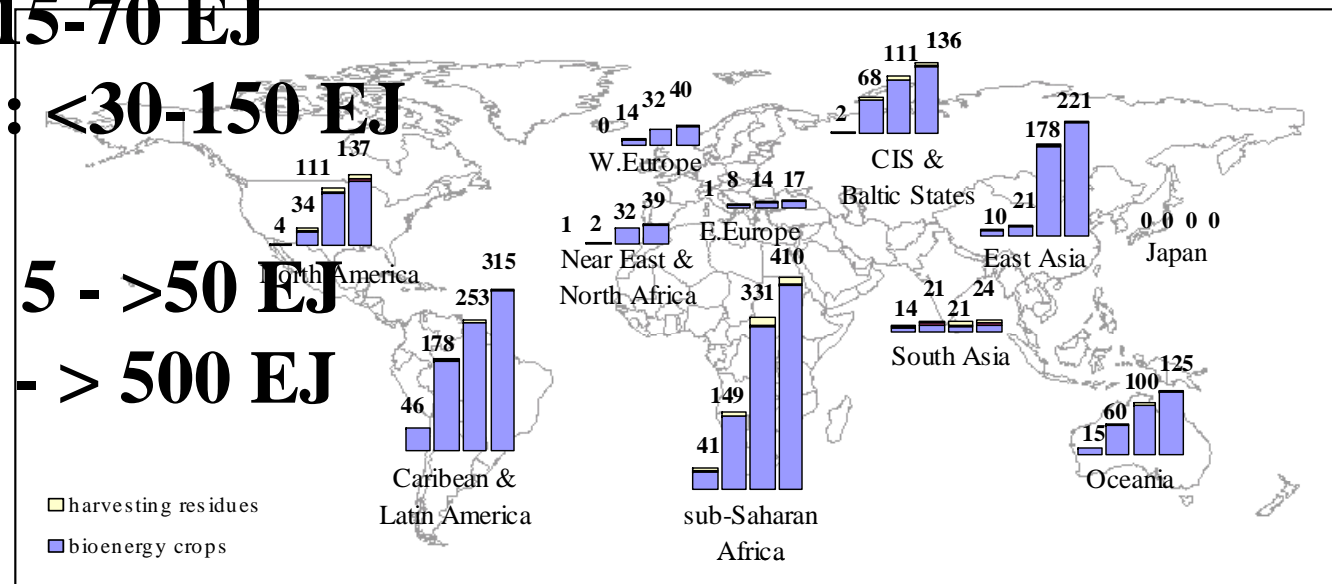
Agri residues: 15-70 EJ

Forest residues: <30-150 EJ

Dung: 5-55 EJ

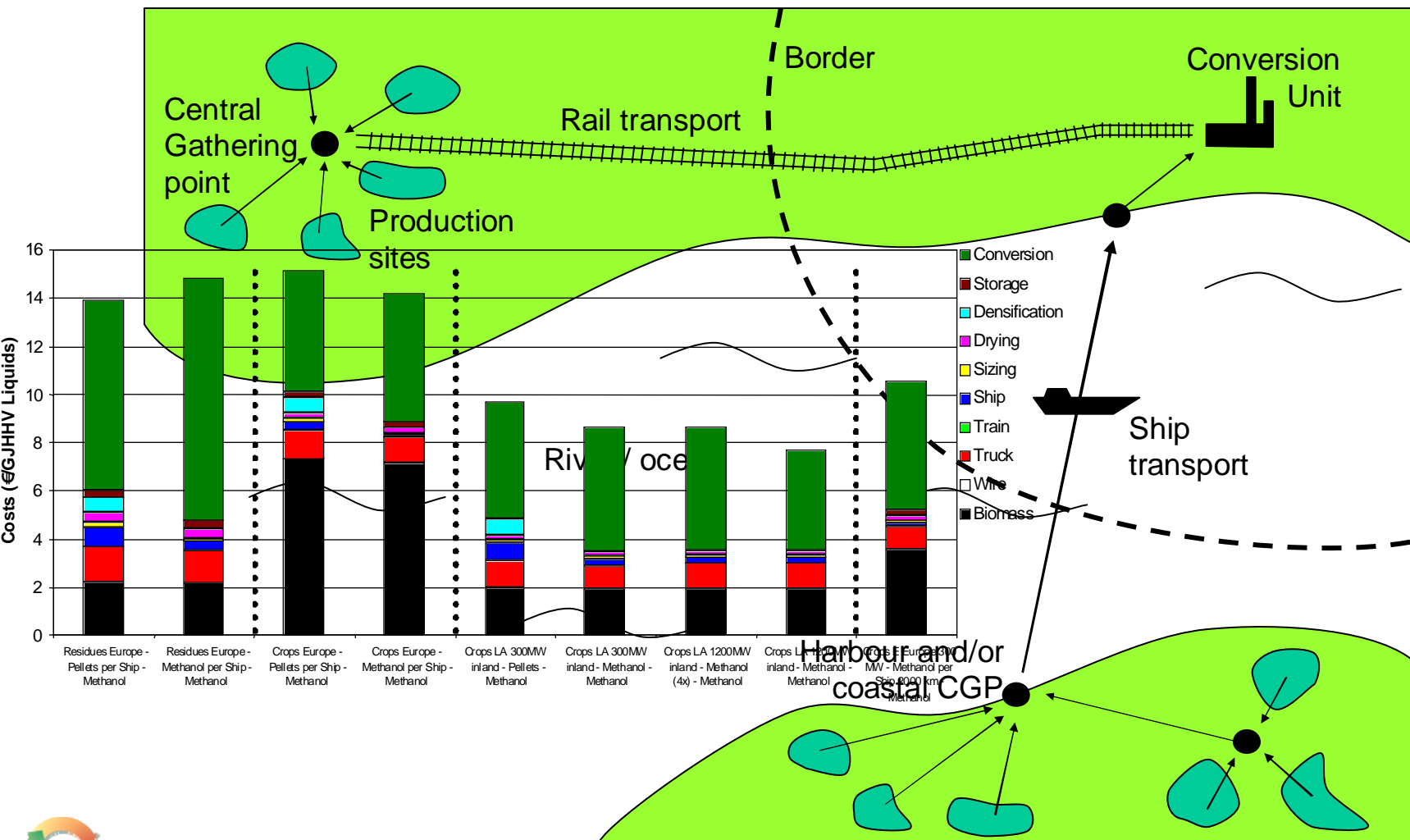
Organic waste: 5 - >50 EJ

TOTAL: < 250 - > 500 EJ





International bio-energy logistics not a showstopper when organized rightly





Rationale of international bio-energy trade:

1. Fuel supply security: diversify portfolio of fuels used & imported; also true for bio-energy as such (!)
2. Cost effective emission reduction of greenhouse gases: Some regions have inherent advantages in producing large volumes low cost biofuels.
3. Socio-economic development: benefits for national trade balances and a sustainable source of income for rural communities.
4. Sustainable management and the rational use of natural resources: biomass production combined with better agricultural methods and restoration of degraded and marginal lands.





International bio-energy markets developing fast...

- Excitement:
 - Solid biofuels trading develops in bilateral setting (Canada, Russia, agricultural residues); bio-ethanol entered first phases of commodity market trading; *“wild west phase”*
 - Growing bio-energy demand and international supply chains create unique opportunities for biomass producing regions.
 - Ultimately, a real alternative for mineral oil...
- Concern:
 - Overexploitation (water, land competition) should be avoided and fairtrade principles implemented.





IEA Task 40: Key issues

- Development of working biomass markets is crucial for any market initiative.
 - Insight in biomass resources, supply and demand interlinkages ‘not optimal’.
 - How can we learn effectively from available experience (bio-energy and other key sectors)?
 - What is needed to create sound working (commodity) markets for bio-energy?
- Contribute to the development of *sustainable* bio-energy markets on short and on long term and on different scale levels.
 - For sustainable bio-energy trade, internationally accepted criteria & certification is desired..





Objectives/activities/deliverables IEA

Task 40

1. Mapping market experience.
2. Strategic advice on (removal of) barriers, opportunities and policy actions.
3. Improve understanding of markets (e.g. modelling).
4. Supply chain analyses
5. Certification systems
6. Initiate pilot projects
7. Case studies and impact analyses
8. Evaluation of markets (Bio-ethanol, pellets, bio-oil)
9. Dissemination & lobbying.





Current status IEA Task 40

- **Members:** Netherlands (T.L.; Copernicus & Essent), Sweden, Norway, Brazil, Finland, Canada, UK, Italy, Belgium (obs.)
- **Affiliated international bodies**
 - FAO, World Bank; (interest from UNECE & UNEP)

www.fairbiotrade.org:

- Detailed activities
- Background information
- Results (e.g. country reports, analyses)
- Events (FAO, World Bank, Brazil '05, Norway '06).





Objectives of the workshop

- How can large-scale **sustainable** biomass production for the emerging world market be realized?
- Highlight **(business) opportunities** for sustainable international bio-energy trade and address key barriers.
- How can **developing markets** be combined with sustainable growth of biomass & bio-energy production capacity?
- **Subsequently:** formulate **advice** and priorities for policy, business and RD&D&D.





Thanks!

- All participants and speakers.
- Ministry of Mines & Energy.
- IEA Tasks 30 (SRC) and 31 (Forestry)
- Arnaldo Walter & staff, UNICAMP,
Martin Junginger.

