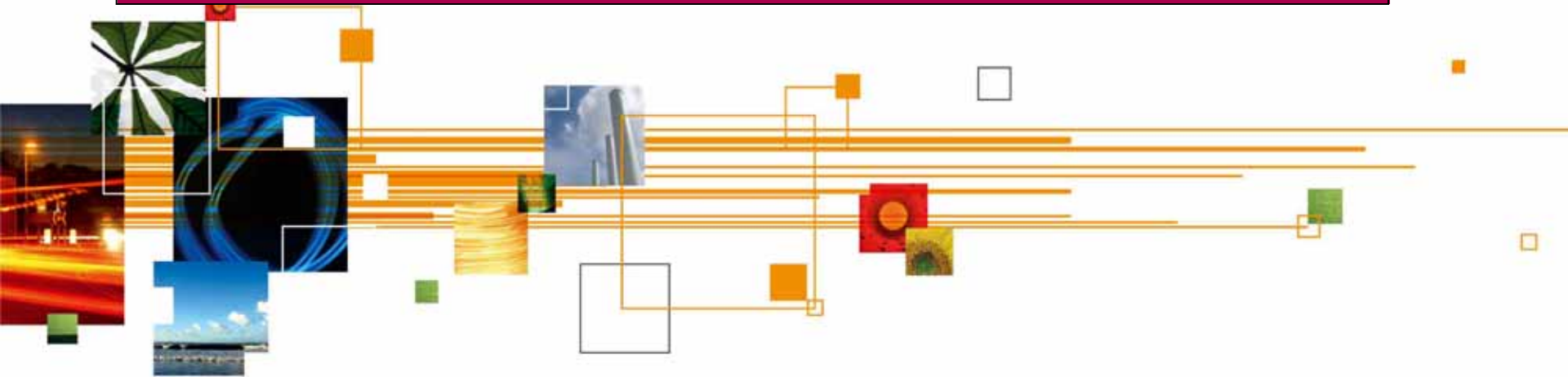


Energy Transition

Assessment Framework for Sustainable Biomass Production



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BIOMASS AS A SOURCE FOR SUSTAINABLE ENERGY

**Utilization in chemicals, transport and energy:
major opportunities**

But also risks.....

**Possible harm to nature and environment and
negative social and economic consequences
for local communities**



NEED FOR SUSTAINABILITY CRITERIA

- **Environmental groups and Parliament are concerned about sustainability of biomass**
- **Application of criteria for sustainability in relevant policy instruments for biofuels and electricity production**
- **A wider application of sustainability indicators by private sector is desirable**



ASSIGNMENT

Formulation and further development of testable criteria which can be applied in policy instruments for biofuels and electricity production

Start process of certification

Consultation of stakeholders to ensure public support



APPROACH

- **Establishment of a project group ‘Sustainable production of biomass’ (government, industry, financial institutes and NGOs, supported by experts)**
- **Survey and conference**
- **Interim report July 2006**
- **Specific working groups for further development of indicators**
- **Various meetings with stakeholders**



POINTS OF DEPARTURE

Set of criteria is a universal framework:

- **Universal, generic framework of criteria, applicable to all biomass and countries**
- **Exception for residual flows with a negligible economic value**
- **No discrimination between biomass produced in the Netherlands and imported biomass**
- **Connection with international initiatives and WTO regulations**



POINTS OF DEPARTURE (2)

Set of criteria is manageable, verifiable and enforceable:

- **Certification of biomass is needed**
- **Testing must be manageable. Only necessary information will be asked for**
- **Minimum requirements for 2007, including incentives for higher future performances**
- **Where testable indicators are lacking, a reporting procedure is proposed**



EFFECTS AT COMPANY LEVEL AND MACRO-LEVEL

Sustainability criteria at company-level

- Burden of proof for provider of bio-energy or biofuels in the Netherlands

Sustainability criteria at macro-level

- Primary responsibility of Dutch government, (preferably coordinated in EU context) to start the dialogue with producing countries, aiming at responsible landuse planning



SELECTION OF THEMES

- **Greenhouse gas balance**
- **Competition with food, local energy supply, medicines and construction materials**
- **Biodiversity**
- **Environment**
- **Economic prosperity**
- **Well-being**



GREENHOUSE GAS BALANCE

Greenhouse gas balance is positive

- **Net emission reduction related to fossil fuels of at least 30% for biofuels and 70% for electricity production. Assuming differentiation of policy instruments aiming at better performances**
- **Assessment based on specific methodology**
- **Whole chain is taken into account (including application); performance depends on national energy reference**



COMPETITION WITH FOOD I.E.

No competition with food, local energy supply, medicines and building

- **Insight in land use changes, and changes in prices of land and food**
- **Reporting on request of the Dutch government. Objective is to support the monitoring at macro-level**



BIODIVERSITY

Biomass production will not deteriorate protected areas or valuable ecosystems; active protection where possible

- **Comply with national legislation and regulations**
- **No deterioration of biodiversity in protected areas or other areas with valuable ecosystems.**



BIODIVERSITY (2)

Biomass production will not deteriorate protected areas or valuable ecosystems; active protection where possible

- **Preservation or recovery of biodiversity within biomass production units**
- **Reinforcement of biodiversity, where possible**



ENVIRONMENT

Soil, water and air quality are maintained or improved in the production and processing of biomass

- **Comply with national legislation and regulations**
- **Application of Best Practices**
- **No competition between use of residual flows and other applications to maintain soil quality**
- **No use of water from not renewable sources**
- **No use of fires to construct or maintain biomass production units**



ECONOMIC PROSPERITY

Biomass production contributes to local and national prosperity

- **Positive contribution of production activities to local economy and local industries**
- **Reporting on the basis of specific economic performance indicators of the Global Reporting Initiative**



WELL-BEING

Production of biomass contributes to the well-being of workers and local population

- **No negative effects on working conditions of workers and human rights**
- **No violation of prosperity rights and rights of use**
- **Positive contribution to social conditions of local population**
- **No violation of integrity**



CRITERIA AT MACRO-LEVEL

- **Important for greenhouse gas balance, biodiversity and competition with food and other biomass applications**
- **Monitoring of (indirect) land use change is needed, at macro-level**
- **Primary responsibility of Dutch government, (preferably coordinated in EU context) to start the dialogue with producing countries, aiming at responsible landuse planning**



CRITERIA AT MACRO-LEVEL (2)

Relevant effects:

- **Prices of land and food**
- **Availability of food**
- **Change of food production and animal husbandry**
- **Deforestation**
- **Loss of nature reserves**
- **Changes in vegetation types**



CERTIFICATION

Three certification systems

1. Track and trace system
2. Mass balance system
3. Book and claim system

Recommendation: start to develop Book and Claim. This enables companies to use system 1 or 2 as well.



STATUS

- **Interim report “Criteria for sustainable biomass production”
July, 14, 2006**
- **Final report: expected in March 2007**



FOLLOW-UP ACTIVITIES 2007

- **Testing set of criteria (finalised summer 2007)**
- **Pilot projects in coming years**
- **Research to further underpin indicators**
- **Attuning the Dutch set of criteria to initiatives at EU and international level**
- **Supporting the private sector in starting the certification process**



MORE INFORMATION

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