Netherlands Sustainable Biomass Programmes

Ralph Brieskorn
Bregje van Keulen

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Focus on sustainability, innovation and international
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2. Need to import sustainable biomass/biofuels
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1. Biobased Economy Netherlands

Since 2007 approved policy for Biobased Economy

Match Economic Strength:
- logistics,
- chemical industry,
- agrifood,
- research

+ Energy sector

Contribute to GHG savings
Cooperate internationally

Focus on sustainability, innovation and international

Share of renewable energy in gross final energy consumption.
Achievements 2000 – 2010
Renewable energy in The Netherlands

- Biodiesel
- Biopetrol
- Biogas
- Other combustion
- Wood-burning stoves
- Co-firing
- Waste incineration (biogenous)
- Open air (heat pumps)
- Soil energy (heat pumps)
- Solar energy and solar heat
- Wind energy total
- Wind energy total
- Hydropower

(renewable energy in The Netherlands gross final end use [PJ])
2. National Biomass availability not sufficient

Needed: 345 PJ

Available: max. 240 PJ

Need for sustainable import
3. Support for Certified Sustainable Biomass

<table>
<thead>
<tr>
<th></th>
<th>Global Sustainable Biomass</th>
<th>Sustainable Biomass Import</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Goal</strong></td>
<td>Support Developing Countries in sustainable biomass production for energy to obtain access to world market.</td>
<td>Support the increase of sustainable biomass for energy in major producing countries to the Netherlands</td>
</tr>
<tr>
<td>Subsidy Budget</td>
<td>12.5 M€</td>
<td>7.5 M€</td>
</tr>
<tr>
<td>Supporting program</td>
<td>2.75 M€</td>
<td>1.5 M€</td>
</tr>
<tr>
<td>Focus countries</td>
<td>Indonesia, Vietnam, Colombia, Nicaragua, Mali, Tanzania, Mozambique and South Africa</td>
<td>Canada, Brazil, Ukraine, Baltic States and Russia</td>
</tr>
</tbody>
</table>
## Pilot Projects contracted

<table>
<thead>
<tr>
<th>Crop</th>
<th>Number</th>
<th>Projects by continent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Algae</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Agricultural Residues</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Jatropha</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>Palm Oil</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Nuts</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Oilseed</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Sugar (Cane, Sorgum &amp; Palm)</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Wood</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Bamboo</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td><strong>Africa</strong></td>
<td></td>
<td>22</td>
</tr>
<tr>
<td><strong>Asia</strong></td>
<td></td>
<td>13</td>
</tr>
<tr>
<td><strong>Europe</strong></td>
<td></td>
<td>4</td>
</tr>
<tr>
<td><strong>North America</strong></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td><strong>South America</strong></td>
<td></td>
<td>14</td>
</tr>
</tbody>
</table>
4. Learning and Practical experiences

Subsidy programmes for sustainable biomass: In total 41 projects

Additional projects commissioned by NL Agency:
- What are direct effects of biomass production?
- Indirect effects, low risk iLuc production
- Certification: lessons learned
- Development of toolbox for sustainability assessments
- Jatropha assessment (incl. business cases)

- Regional support for upscaling and duplication
Projects in Brazil

1. Real Benefit sharing: Improving sustainability of cane ethanol through mainstream marketing, *Solidaridad*
   - goal: employment for sugar cane cutters and chain certification

2. CIIB-Certification system addressing indirect impacts of biofuels, *WWF-international, RSB, Ecofys*
   - goal: develop methodology/certification to avoid negative aspects of indirect land use change

3. Regular cooperation with Brasil in MoU: biofuels and sustainability, bio kerosine and CHP (not part of Subsidy programmes)
Projects in Indonesia

- 9 projects in Indonesia

1. Aquatic biomass for sustainable energy production, *Maris projects*
   - goal: demonstration applicability of algae treatment on POME

2. Improving social-economic impact biomass production for local communities, *APIB, AMAN, Oxfam Novib*
   - goal: mapping social impact biomass production and identify capacity building needs

3. Development candlenut and castor biomass supply chains, *Fauna and flora international, PT Export leaf Indonesia*
   - goal: establishing certified supply chains for biomass use in Lombok
Projects in Mozambique

   - goal: Selection of certification scheme for Jatropha plantations

2. Sustainable solid biomass supply from Mozambique, *Solidaridad / Electrabel*
   - goal: development supply chain from agricultural by-products

Pilot GBEP indicators Ghana

Goals:
- Enhancing capacity in Ghana on using sustainability indicators
- Learning on how to use the indicators, spreading experiences in ECOWAS region and learning in GBEP

Involved:
- Ghana, Ecowas, consultant, Agency NL and Min of IenM

Focus on:
- Selected group of indicators (6 -12)
- Assessing data availability of all indicators
- Workshops in Ghana and spreading knowledge in the region
Conclusions

- Import of sustainable biomass important

- 41 pilot projects are contracted

- Experience on certification and training to be obtained

- Results projects and tools available: www.agentschapnl.nl/biomass

- In 2012 – 2013 dissemination and international cooperation

- Support of capacity building in Mozambique, Colombia, Ukraine, Vietnam, Indonesia
Thank you for your attention

MORE INFORMATION:

WWW.AGENTSCHAPNL.NL/BIOMASS

Kees.Kwant@agentschapnl.nl

QUESTIONS??