GBEP BIOENERGY WEEK

FAMILY AGRICULTURE AND RURAL DEVELOPMENT

Presentation:
BIOENERGY FROM FAMILY AGRICULTURE AND RURAL DEVELOPMENT

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MAIN CONTENTS

Part 1: Bioenergy Potentials from agriculture
Part 2: Use of Bioenergy in Vietnam
Part 3: Bioenergy usage: experience in Vietnam
PART 1: BIOENERGY POTENTIALS AS AN AGRICULTURAL NATION
POTENTIALS (Contd)
+ Estimatedly in 2011, Vietnam had 110 millions tons of biomass,
Of which, 70% came from agriculture by products, 30% from wood residues.
- Numbered as follows (annually):
+ rice straw: 60 mil tons, rice husk: 10 mil tons
+ dung: 50 mil tons
+ 125,000 ha of jatropha, 300,000 ha of cassava and 350 ha of sugar cane.
+ planting 1,000,000 ha plantation forest
+ 200,000 tons of cat fist fat
### Ethanol production in Vietnam

<table>
<thead>
<tr>
<th>NO</th>
<th>FACTORY NAME</th>
<th>CAPACITY (per year)</th>
<th>STATUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Daitan Ethanal Plant</td>
<td>125 mil litters</td>
<td>Operating</td>
</tr>
<tr>
<td>2</td>
<td>Pvoil central Bio Fuel Plant</td>
<td>100 mil litters</td>
<td>Operating</td>
</tr>
<tr>
<td>3</td>
<td>Binh Phuoc Ethanol Plant</td>
<td>100 mil litters</td>
<td>Operating</td>
</tr>
<tr>
<td>4</td>
<td>Phu Tho Ethanol Plant</td>
<td>100 mil litters</td>
<td>Operating</td>
</tr>
<tr>
<td>5</td>
<td>Tung lam Ethanol Plant</td>
<td>70 mil litters</td>
<td>Operating</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL</strong></td>
<td><strong>495 mil litters</strong></td>
<td></td>
</tr>
</tbody>
</table>
We are trying to maintain 3.8 million hectares of rice production. This can make up to 70 million of biomass from rice by products alone.

4 million of households (out of more than 20 million in total) have different scales of pig farms (from 2-3 pigs to hundreds of pigs).
PART 2: BIOENERGY USAGE IN VIETNAM

The current annual demand of 35 million tons of oil.
+ Biomass: 40%
+ Oil: 23%
+ Coal: 17%
+ Natural gas: 17%
+ Hydraulic power: 4%

(Highly dependant on bio energy)
Using purposes:
As you can see, household use of energy is the main content of demand;
And we depend highly on biomass as shown on the previous slide

Biomass has a very important role in Vietnam, especially in agriculture and rural life.
Long ago, Vietnamese people have made many types of efficient stoves in order to save biomass as much as possible.
Trying to build a mechanism of sustainable use of biomass, Vietnam now is reducing the direct burning of biomass.

Apart urging people in rural area to use better efficient stoves,

We turn to build more biogas plant at the household scale so that a variety of people in rural area can take advantage.

The valuable biomass source from rice production now is used in big energy plants and for other purposes such as: animal feed, fungi growing, fertilizers.
**PART 3: EXPERIENCES IN VIETNAM**

<table>
<thead>
<tr>
<th>As an agricultural country, we care and maintain the valuable biomass sources</th>
<th>A famous saying in Vietnam “Forest is gold, Sea is silver” prove this agricultural spirit</th>
</tr>
</thead>
</table>
| 1/ Strong determination of the Government to develop and sustainably use biomass  + Commitment to maintain a minimum of 3,8 mil ha for rice production, 500,000 ha for cassava and sugar cane plantation  
That above land scheming has been put in to stale law of land use. | 2/ Having policies for biomass development as well as bioenergy production.  
+ in 2007, the Prime Minister signed in to law: Decision no 177/2007/QD-TTg approving the Plan to develop Bio Fuel in 2015 with orientation to 2020.  
+ According to The Prime Minister’s Decision No 53/2012/QD-TTg issuing the Scheme for using Bio Fuel, in 2017, E10 must be |
3/ International cooperation in bioenergy

This is one experience and because of this I am here today. With the help of many international organisations and countries, Vietnam has been running many successful bioenergy projects:

- The project of “the pre-feasibility study on biomass power generation using appropriate technology in Vietnam” supported by the Italian National Agency for new Technology, Energy and Environment.

- We are also supported by SIDA (Sweden), Worldbank, FAO…in building capacity of rural households to use biogas, changing to more efficient ovens in small industries like: brick production, ceramics
Weak management in biomass collection and usage
Percentage of wasteful biomass is still high as a big part of rice straw and husk and even wood residue is just burnt out.
People are not used to bio fuels: In fact, the production of etanol from cassava and bio diesel from cat fish fat have not been much consumed in Vietnam. Vietnam now is exporting etanol and bio diesel at low price.
Thank you

Brasilia, 20 March 2013