



# ENERGETIC USE OF WOOD IN VIETNAM

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Alumni summer school in Freiburg | July, 2014

# Vietnam



## The Socialist Republic of Vietnam

- Capital: Hanoi
- Population: 89 mil.
- Land area: 33 mil. ha
- GDP: \$280 bill.



Vietnam is still known as an agricultural country.



# Biomass feedstock in Vietnam



Vietnam has huge resources of biomass with some selected residues for bio-energy <sup>1</sup>

## Agricultural

Rice

Corn

Coconut

Coffee

## Energy Crops

Jatropha

Cassava

Sugar Cane

## Other

OMSW\*

Manure

## Forest

Wood

Bamboo



\* Organic Municipal Solid Waste

<sup>1</sup> Source: NL Agency's report 2012

# Forest area in Vietnam



**In 2010**

Mil. ha <sup>(2)</sup>

forest coverage in Vietnam – 39 %

40%

76%

■ Total forest area in the country in 2010

■ Total area of production forest

Since 2013, the harvesting of natural forests are completely abandoned in Vietnam. Wood and biomass for processing industry will come from plantation and import sources.



# Intensively managed plantations



# Wood demand for wood industry in Vietnam



In 2010

Mil. m<sup>3</sup><sub>rw</sub> <sup>(3)</sup>

13.0

6.4

6.6

74%

25%

Total large wood small wood

■ Total wood for wood industry in 2010 in Vietnam.

■ Supplied from domestic forests, of which **only less than 1%** harvested area **certified**.

## Government strategy by 2020 <sup>(4)</sup>

⇒ **10 mil. m<sup>3</sup> large wood** and **10 mil. m<sup>3</sup> small wood** provided **by domestic forests** a year.

⇒ **30%** of the forest area will be **certified**.

# Woody biomass potential for energy in Vietnam

As theoretical calculated:

Woody biomass for energy	In 2010 (mil.m <sup>3</sup> )	from 2020 (mil.m <sup>3</sup> )
Small dimension wood from plantations	6.40	10.00
Branches & tops	2.12	5.34
Residues & sawdusts	3.06	3.49
<b>Total</b>	<b>11.58</b>	<b>18.83</b>



Vietnam has big potential of woody biomass (WB) to develop bioenergy for domestic use and export.



# The current use of woody biomass in Vietnam



- branches & tops  
- residues



**Firewood**



**In rural area**  
(very popular)

- sawdusts



**Briquettes**



**For domestic use**  
(not popular)

- small dimension logs



**Pellets**



**For export**  
(very beginning &  
small scale)

- residues



**Liquid biofuel**



**In lab**  
(almost nothing)



The use of woody biomass in Vietnam is still in traditional way. Briquettes, pellets and liquid biofuel from wood are still a new definitions in forestry production in Vietnam.



# Difficulties in developing WBE in Vietnam



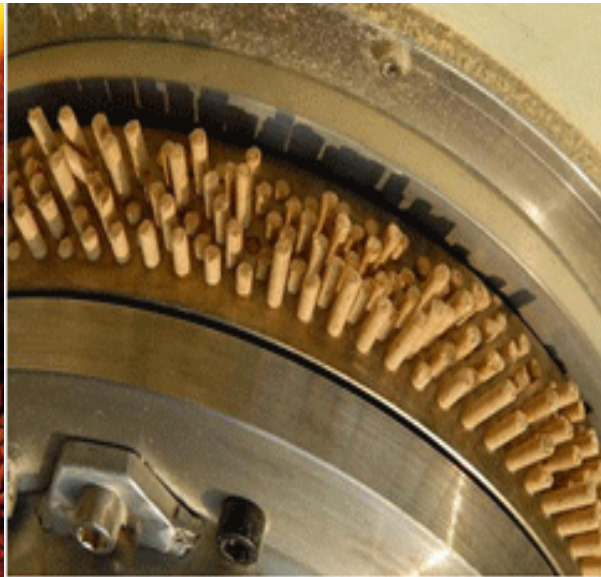
- Lack of supporting policies.
- Small market for the products.
- High cost investment.
- Insufficient technologies.



# Priorities in the future



- Evaluate social-economic and environmental effects.
- Make policies on development and use of bioenergy.
- Knowledge transfer and capacity building.
- Financial support.





**THANK YOU  
FOR YOUR ATTENTION!**

