CASE for Southeast Asia

Supported by:
Federal Ministry for Economic Affairs and Climate Action
on the basis of a decision by the German Bundestag

THE ROLE OF BIOENERGY IN THE ENERGY TRANSITION

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on behalf of Clean, Affordable and Secure Energy (CASE) for Southeast Asia

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1. BIOENERGY IN VIET NAM

Bioenergy is generated from **biological** sources such as crop, forest and livestock residues, etc.

Agricultural residues

- Rice husks and straw
- Maize: cob, husks, stalk
- Sugarcane: bagasse, tops, leaves

Energy crops

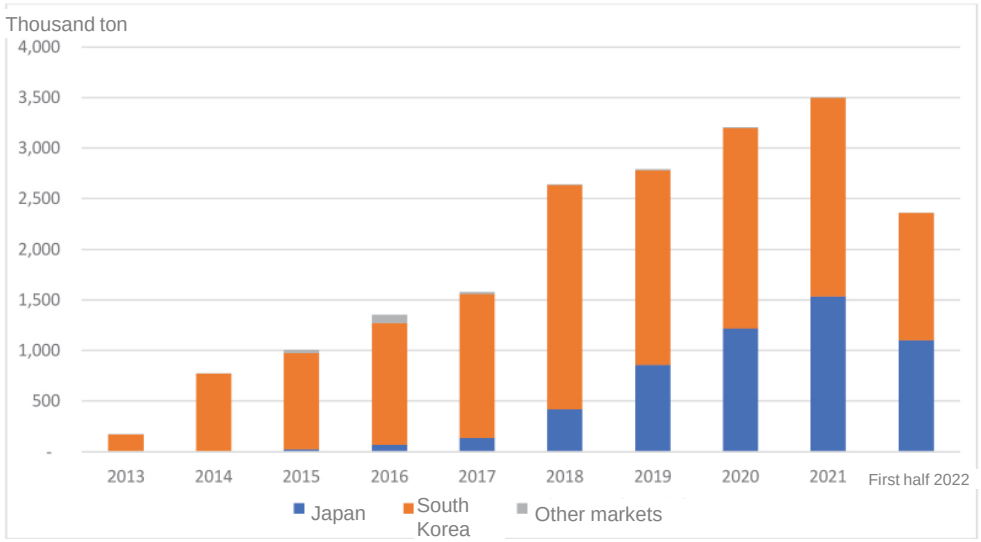
- Miscanthus
- Sorghum

Planted forest residues

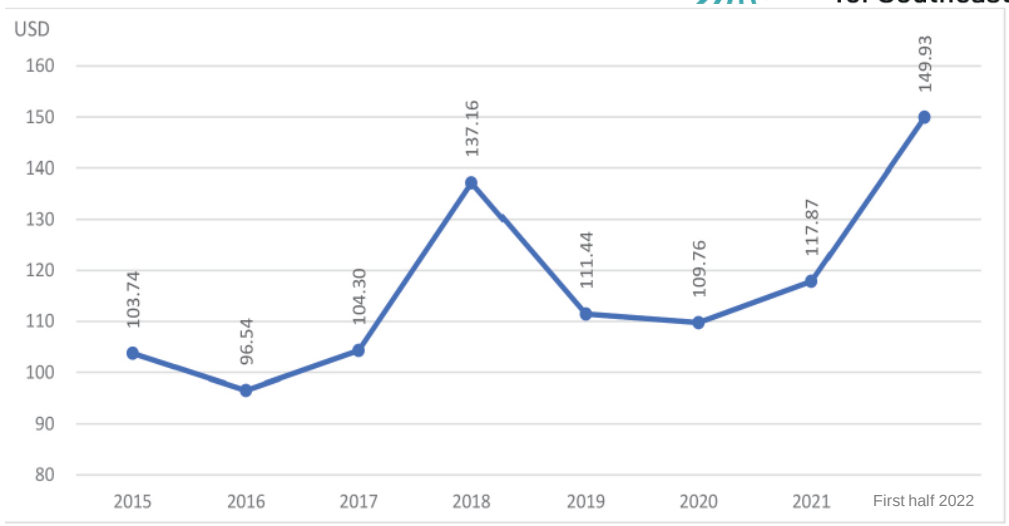
- Particle board, sawdust...
- Bamboo
- Branches, leaves

Viet Nam is the world's SECOND largest wood pellet exporter.

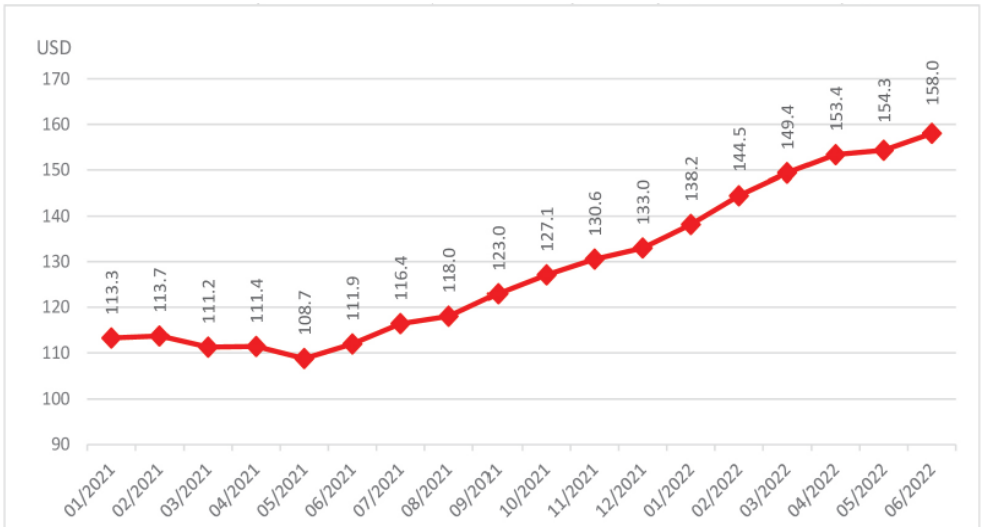
1. BIOENERGY IN VIET NAM



The export volume of pellets



The average export price of pellets



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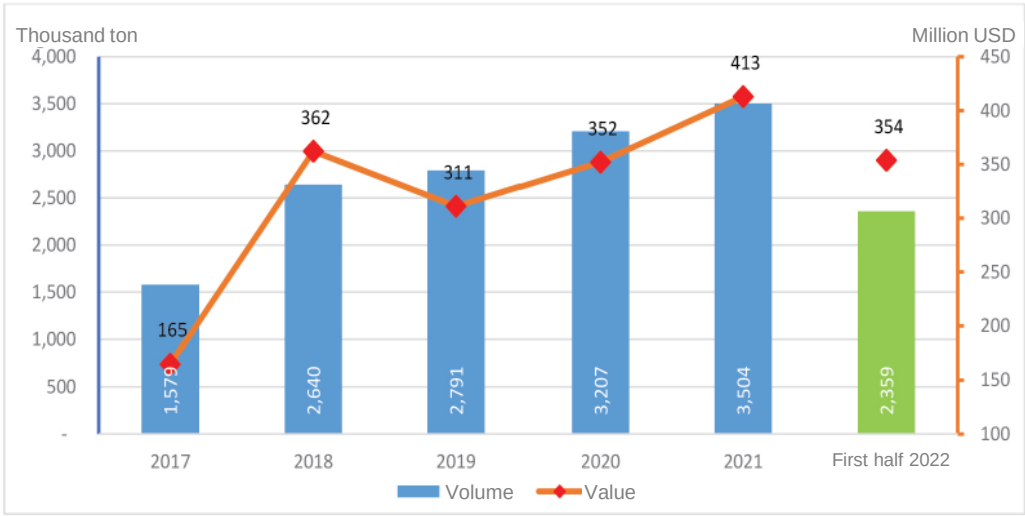

The export volume and value of pellets

2. WHAT IS THE ROLE OF BIOENERGY?

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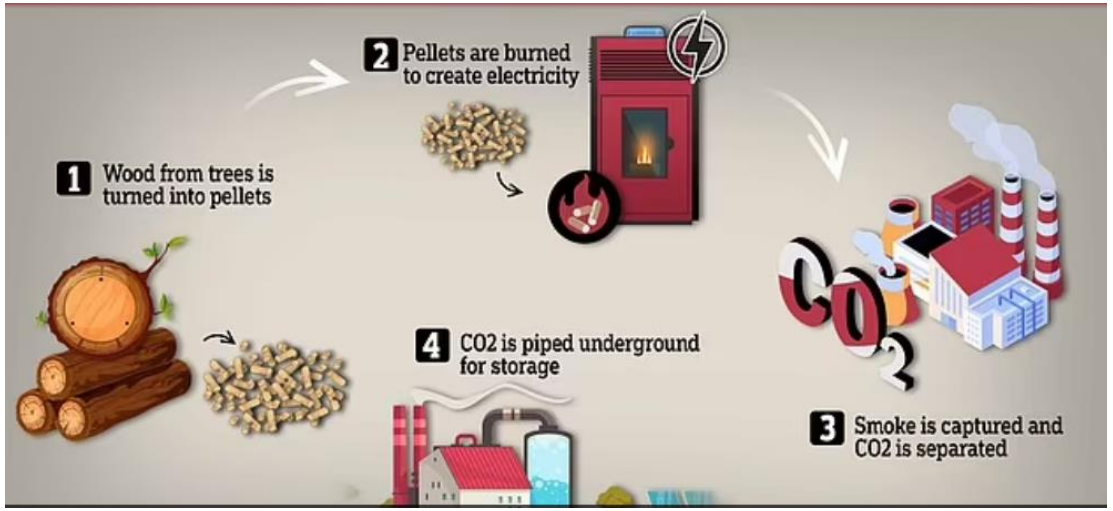

RESOLUTION 55/NQ-TW

PART III

Section 1. Promote **INVESTMENTS** in biomass power plants

Section 2. **MAXIMALLY** exploit biomass for co-generation

Section 9: Create mechanisms and policies to **ENCOURAGE** the development of the environment **INDUSTRY** closely to the **ENERGY SECTOR**

3. OPPORTUNITIES AND CHALLENGES

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Orientation	Technology	Mechanism/Policy
1. Investments in biomass power plants	- Available - Similar to coal-fired power plants, input fuels are different	Issued two FITs FIT1 (2014), FIT2 (2020)
2. Maximally exploit biomass cogeneration		
2.1 Co-generation for steam and power	- Available - 10 CHP biomass power projects annexed to sugar mills - The capacity of these projects hasn't been exploited maximally	Issued two FITs FIT1 (2014), FIT2 (2020)
2.2 Cogeneration for power (encouraging coal-fired power plants using fluidized-bed boilers to partly convert their fuel)	- Available - Fuel conversion is currently possible for 10 coal-fired power plants (Ninh Binh, Quang Ninh, Thai Binh EVN, and 7 plants of TKV)	No mechanism available

3. OPPORTUNITIES AND CHALLENGES

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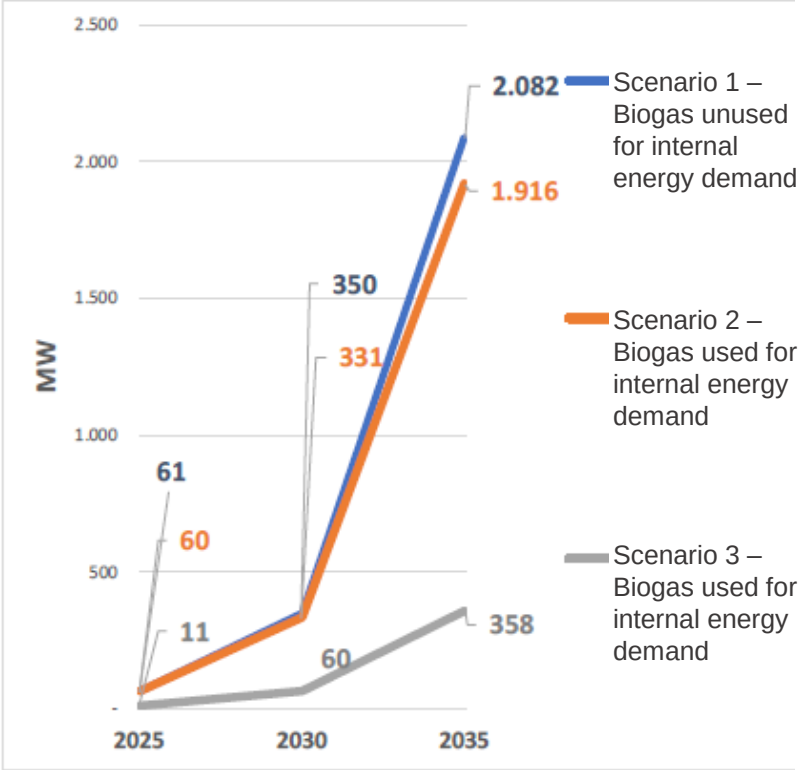
BIOMASS

#	Sugar mill	Installed capacity	Power
1	Lam Son	24	18.5
2	Nghe An	18	18
3	KCP	39	39
4	Khanh Hoa	60	13.4
5	TTC GL	34.6	34.6
6	BHS NH	30	30
7	TTC-TN	24	24
8	Soc Trang	12	12
9	Son Duong	25	25
10	An Khe	95	95
	Total (MW)	**361.6**	**309.1**

Biomass cogeneration in coal-fired power plants using exported wood pellets/ 3.0 million tons (2020) (Source: FutureMetrics, USA, 2021)	900

BIOGAS



4. RECOMMENDATIONS

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- Need for inter-ministerial cooperation: MARD, MONRE, MOIT
- Review and adjustment of electricity tariffs for biomass power plants, technology-based electricity tariffs should be avoided
- Need for an incentive mechanism encouraging fuel conversion (coal partly converted into biomass) in coal-fired power plants
- Accelerating the issuance of electricity tariffs for biogas power generation

THANK YOU VERY MUCH

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