



# Solid Biofuels Statistics

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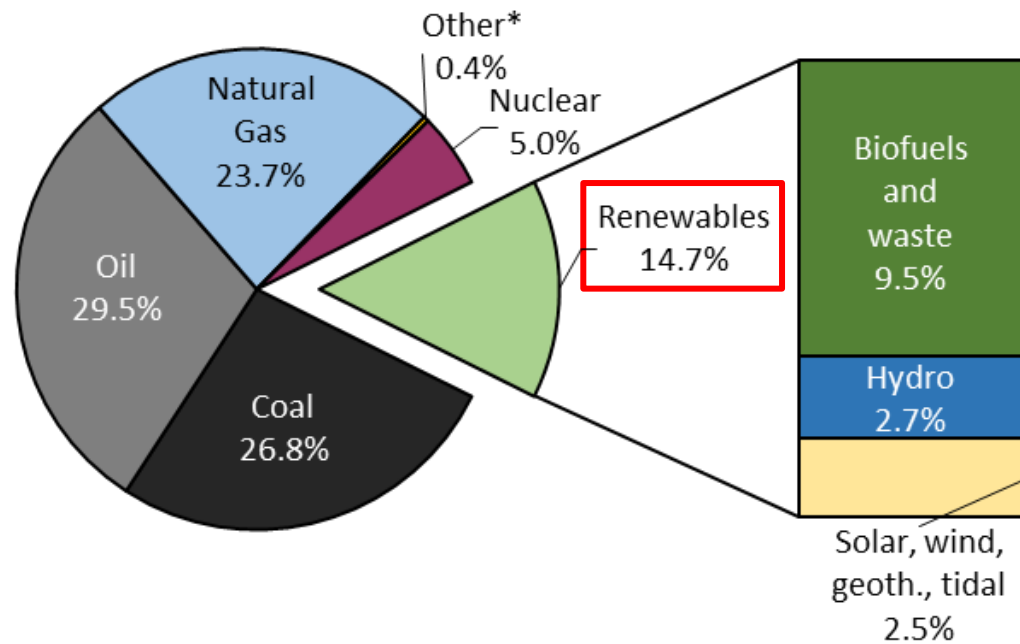
# Presentation overview

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- Key solid biofuels energy statistics
- What data IEA collect and publish
- How data collection works and where to find IEA data products

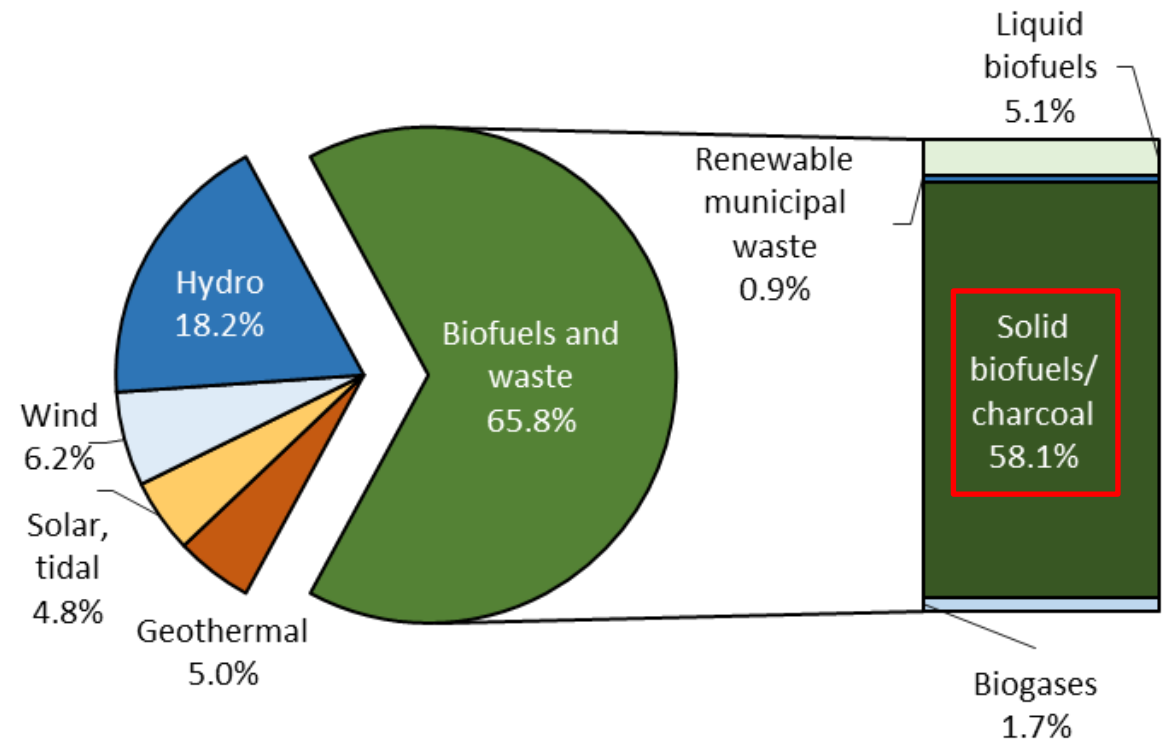
# Renewables in the world 2020

## TES



584.6 EJ

## Renewables



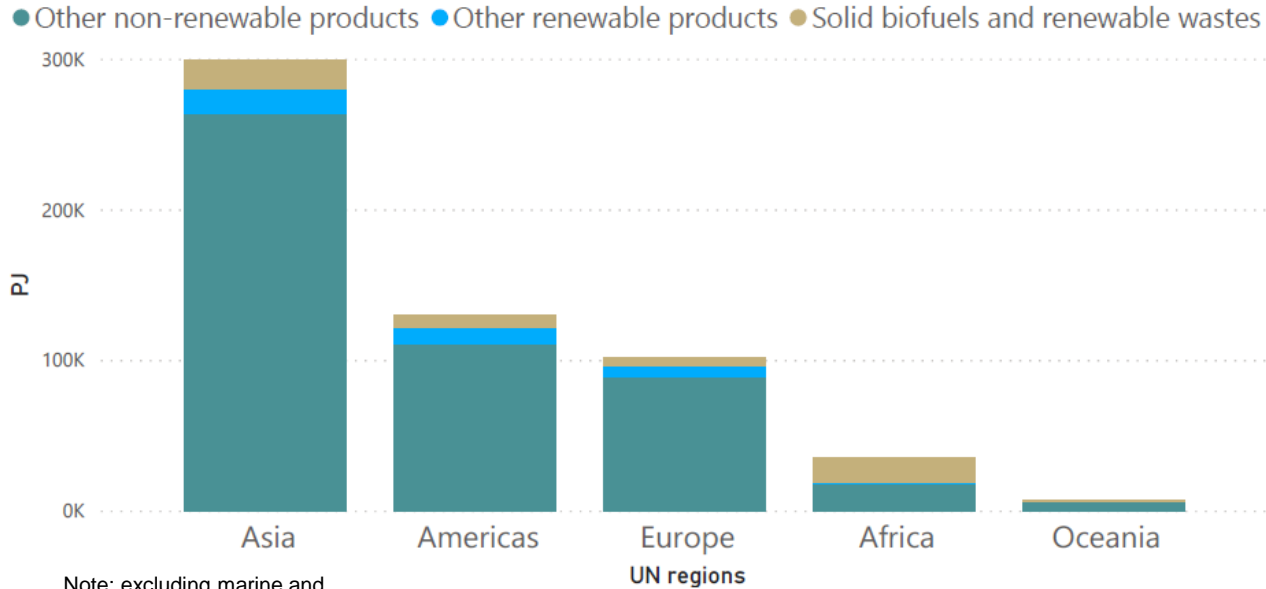
86.0 EJ

\*Other includes non-renewable wastes and other sources not included elsewhere such as fuel cells

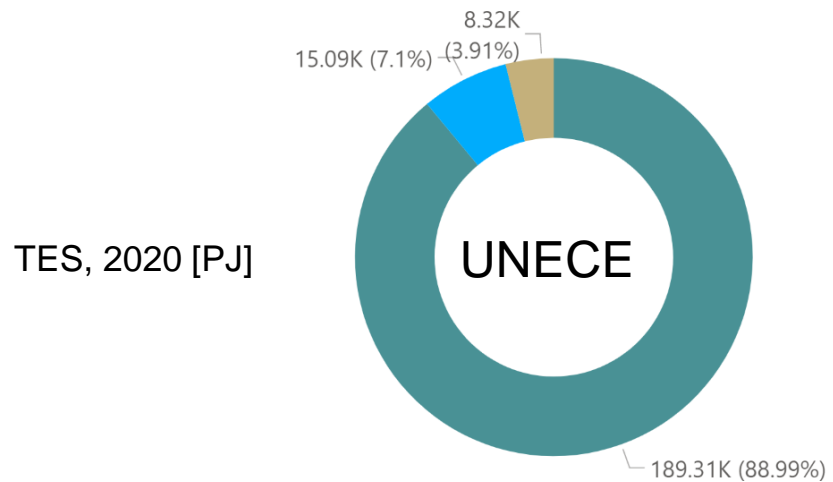
Sources: IEA, Renewables Information, 2022  
IEA, World Energy Balances, 2022

# Geographical and sectorial overview

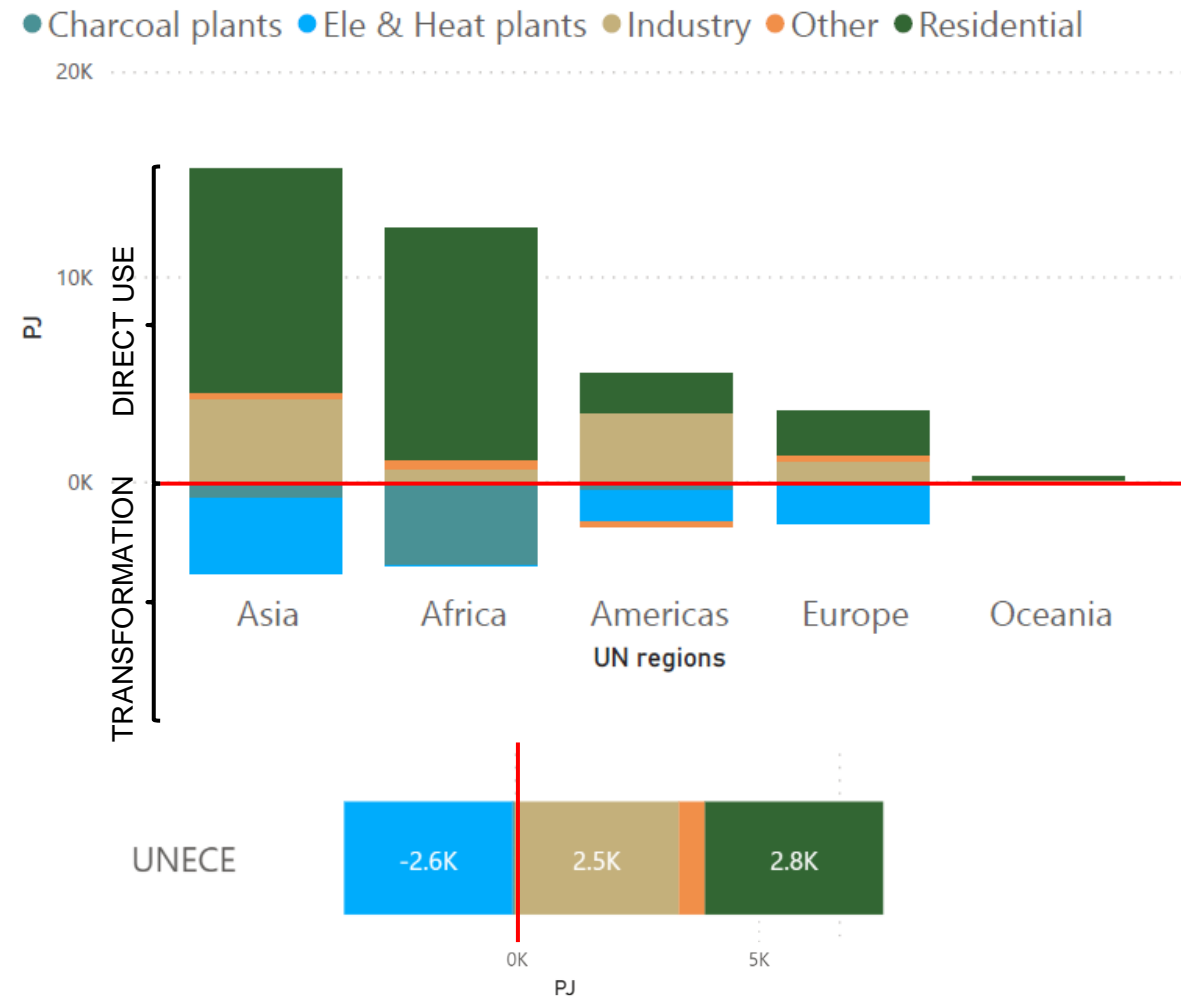
Total Energy Supply, 2020



Note: excluding marine and aviation international bunkers



Demand side of primary solid biofuels and renewable wastes, 2020



# Solid Biofuels products



**Wood and woody materials**  
(firewood, wood chips, sawdust...)



**Charcoal**  
(produced from wood products)



**Bagasse**  
(by-product of sugar cane juice extraction)

**Solid biofuels** covers organic, non-fossil material of biological origin which may be used as fuel for heat production or electricity generation. We distinguish **primary** and **secondary** solid biofuels. The latter have been manufactured through a transformation process.

**Black Liquor**  
(by-product of paper production)



**Other vegetal materials**



**Rice husks**

**Olive cake**  
(by-product of olive oil production)



**Wood Pellets**



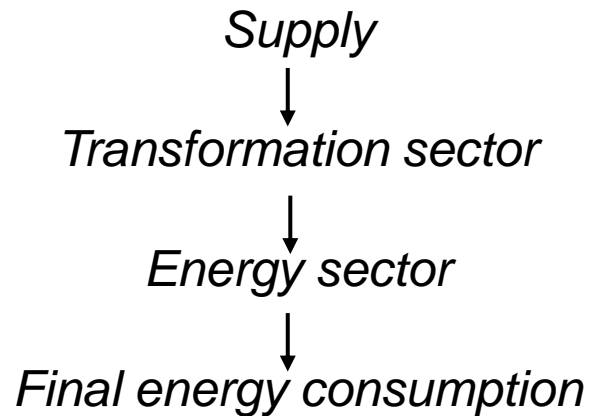
**Animal waste / material**

**Industrial waste (renewable)**

(e.g. natural rubber component of waste tires – no relationship to other wastes in the questionnaire)



Entire commodity balance (60 ISIC flows):



- *Industry*
- *Transport*
- *Other*

Electricity and heat generation

Wood pellets trade by partner

Country

Country		MUNICIPAL WASTE			SOLID BIOFUELS	
		Industrial waste (non-renewable)	Renewable	Non-renewable	Solid biofuels excluding charcoal	Charcoal
		TJ (NCV)	TJ (NCV)	TJ (NCV)	TJ (NCV)	1000 tonnes
	<b>2021</b>	C	D	E	F	G
Indigenous production	1	0.000	0.000	0.000	0.000	0.000
Total imports (balance)	2	0.000	0.000	0.000	0.000	0.000
Total exports (balance)	3	0.000	0.000	0.000	0.000	0.000
Stock changes (national territory)	4	0.000	0.000	0.000	0.000	0.000
Inland consumption (calculated)	5	0.000	0.000	0.000	0.000	0.000
Statistical differences	6	0.000	0.000	0.000	0.000	0.000
<b>Transformation sector</b>	<b>7</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>
Main activity producer electricity	8	0.000	0.000	0.000	0.000	
Main activity producer CHP	9	0.000	0.000	0.000	0.000	
Main activity producer heat	10	0.000	0.000	0.000	0.000	
Autoproducer electricity	11	0.000	0.000	0.000	0.000	
Autoproducer CHP	12	0.000	0.000	0.000	0.000	
Autoproducer heat	13	0.000	0.000	0.000	0.000	
Patent fuel plants (Transformation)	14	0.000				
BKB plants (Transformation)	15	0.000	0.000	0.000	0.000	0.000
Gas works (Transformation)	16					
Blast furnaces (Transformation)	17					0.000
Natural gas blending plants	18					
For blending with Motor gasoline/Diesel/Kerosene	19					
Charcoal production plants (Transformation)	20				0.000	
Not elsewhere specified (Transformation)	21	0.000	0.000	0.000	0.000	0.000

Production flow: products breakdown

Country

Country		Unit = TJ (net)	
		2021	A
	<b>2021</b>		A
Solid biofuels (excluding charcoal)	1		0.000
Fuelwood, wood residues and by-products	2		0.000
Wood pellets	3		0.000
Black liquor	4		0.000
Bagasse	5		0.000
Animal waste	6		0.000
Other vegetal materials and residues	7		0.000
Industrial Waste - renewable part	8		0.000

Countries submitting the  
***Renewables and Wastes Joint Annual  
Questionnaire (JAQ)***

About 60 countries  
(OECD + other countries)

Countries NOT  
submitting the JAQ

About 95 countries

**How:** Establish contact with NSOs, i.e. national institution(s) responsible for national energy statistics

## Process

Data collection → Validation (internal checks / exchanges with country contacts) → Dissemination

- Cycle 20YY/20YY+1 starts in September/October – 20YY-1 data collection  
(*e.g., in 2022/2023 cycle, 2021 data collection*)
- Data releases
  - April/May 20YY+1 – publication of 20YY-1 data for JAQ countries  
(*e.g., in April 2023, 2021 data publication*)
  - July/August 20YY+1 – publication of 20YY-1 data for all the countries + provisional 20YY data  
(*e.g., in July 2023, 2021 data + 2022 provisional data publication*)
- Data products
  - [Renewables Information](#)
  - [World Energy Statistics and Balances](#)
  - [Energy Statistics Data Browser](#) (for free)
- Reference material
  - [Renewables and Wastes JAQ](#)
  - [IRES](#) (International Recommendations for Energy statistics)





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