



## **A Circular Bioeconomy - Initial Thoughts**

October 2019

# Overview

Due to a variety of megatrends, the world is demanding sustainable and safe solutions across all industries

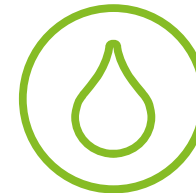
**Population Growth**



**Sustainability**



**Climate Change**



**Industry 4.0**



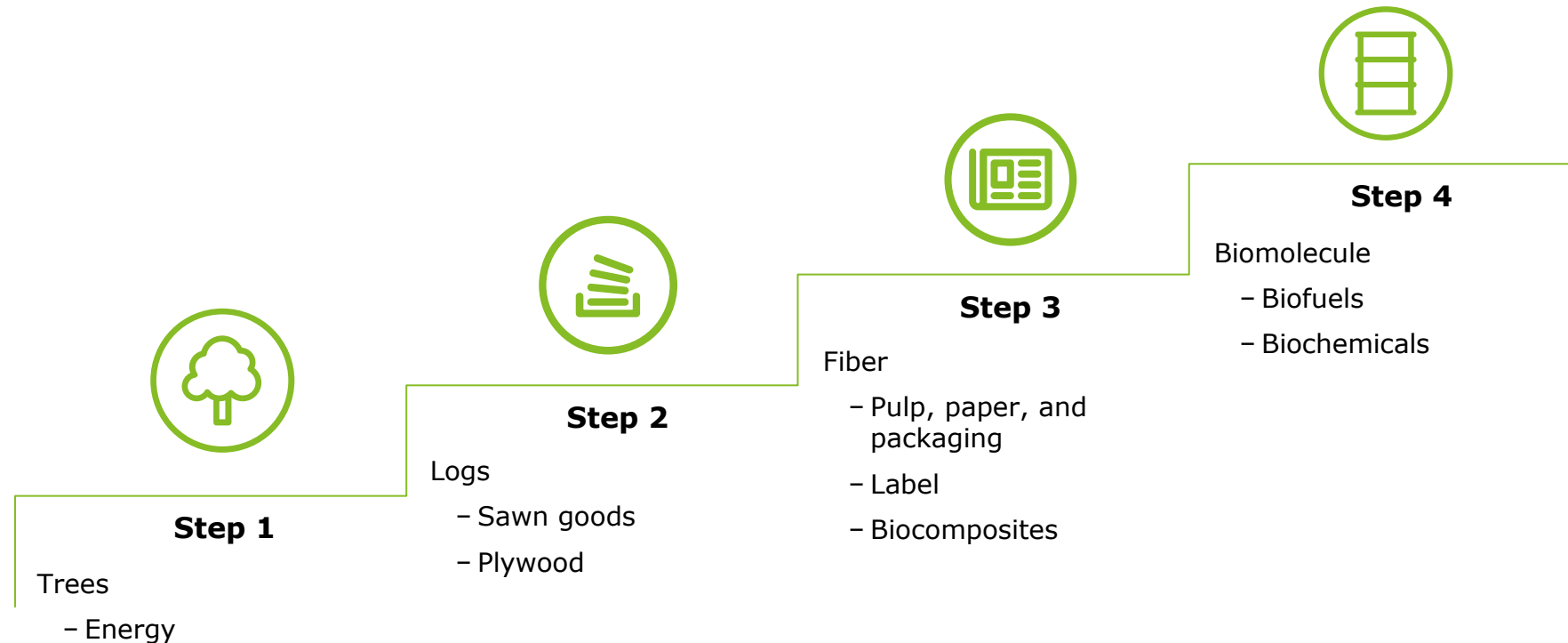
**Responsibility**



# Overview

Primary forest products and residues are on a journey to increase value through a more bioeconomy approach employing different technological processes

Value addition in the forestry/ biorefining industry



# Overview

Sabah has tremendous biomass resources that could be leveraged for the use of developing a bioeconomy....

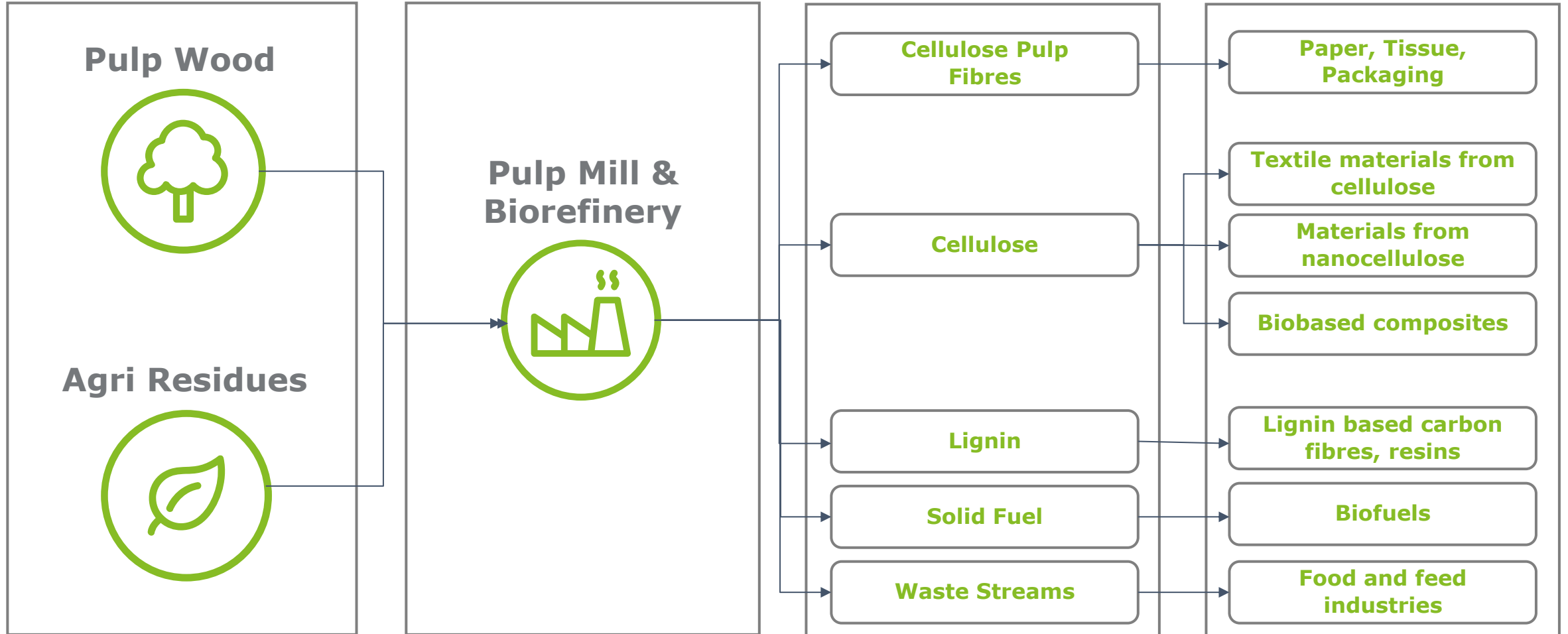
## Land Use in Sabah (2012)

	('000 Ha)	%
National Forests & Land	4,091	55.6
Plantation Forest	214	2.9
Oil Palm Plantations	1,415	19.2
Rubber Plantations	87	1.2
Rice Fields	43	0.6
Coconut Farms	18	0.2
Cocoa Holdings	7	0.1
Other Crops	27	0.4
Other Land Use	1,460	19.8
Total	7,362	100

Source: Department of Statistics Malaysia (2012)

# Overview

Forestry can also be assessed as an opportunity.....



# Overview

There would likely be multiple benefits to Malaysia and Sabah in driving its plan for the bio-economy.



**Sustainability**



**Employment**



**FDI/  
Revenues**



**Circular  
Economy**



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