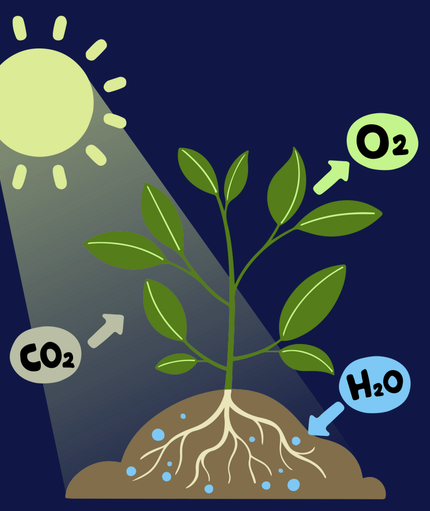
1

WHAT IS BIOMASS?

Definition:.

Organic material from plants and animals (wood, crop waste, and even food scraps).

How it works:



Biomass is essentially sunlight in solid form. Through photosynthesis, plants capture radiant energy from the sun and "lock" it into the chemical bonds of sugar molecules. This is why biomass is considered a renewable battery.

2

WHY IT MATTERS

Carbon Neutrality:

When biomass is burned, it releases the same amount of carbon dioxide the plant absorbed while growing. This creates a "Closed Loop" that does not add new carbon to the atmosphere.

Waste Management:

Instead of letting agricultural waste rot in landfills (releasing methane) or burning it in open fields (causing smog), we transform it into a valuable fuel resource.

FROM WASTE TO WATTS: EMPOWERING COMMUNITIES THROUGH BIOENERGY

WHY IS IT WASTED?

Logistics Barriers:

High costs of transporting bulky, loose agricultural waste from remote farms to power plants.

Philippines Agri-Waste Potential:

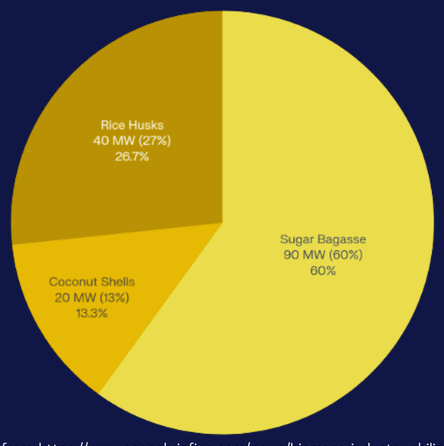


Chart from: https://www.aseanbriefing.com/news/biomass-industry-philippines/

Untapped power: 150 MW potential – from sugar/rice alone.

3

THE SMART SOLUTION

Residue Mapping Dashboard:

GIS heatmaps show rice husks, coconut shells, bagasse by barangay

Smart Buyer-Seller Matching:

Biomass plants post fuel needs (tons/month, price/kg) and an algorithm matches nearest suppliers by volume/price

Logistics Price Calculator:

Inputs distance, truck capacity, fuel prices → total cost and compares truck vs barge for coastal areas

Analytics for LGUs

Tracks CO2 saved, power generated, farmer income

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