

TRENDS AND OPPORTUNITIES – ORGANIC WASTE

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CURRENT TRENDS IN ORGANIC WASTE BIOREFINERY

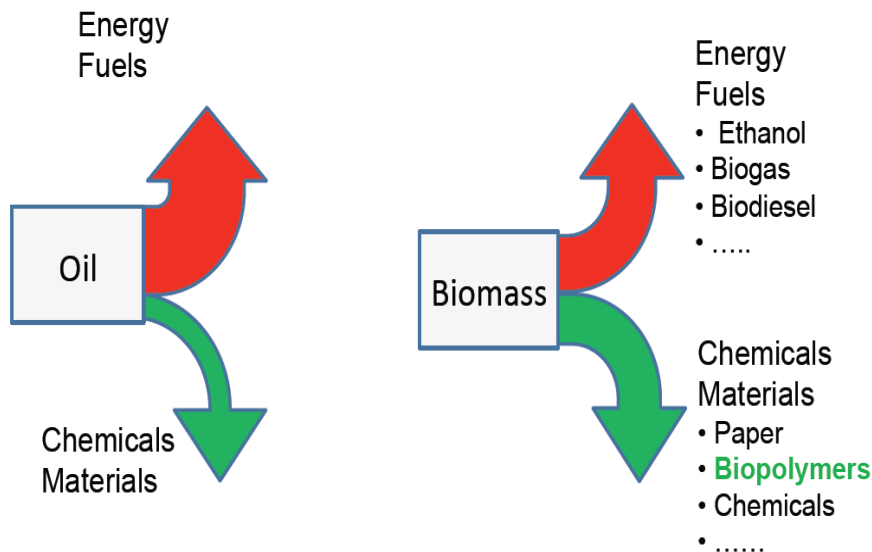
- **Low yields in the pulp and paper industry**
 - One ton of wood results in 0.5 ton paper
 - In recycled paper making 50% is sludge
- **Disposal of sludge**
 - **Dumping into rivers or the sea**
 - Not good for the environment
 - **Landfilling**
 - Greenhouse gas emissions
 - Objectionable odours
 - Lack of space
 - **Burning**
 - Emissions of hazardous gases
 - **Spreading on farmland**
 - Contaminants

OPPORTUNITIES FOR ORGANIC WASTE BIOREFINERY

■ Biorefineries

- using a variety of technologies to make products such as chemicals, biofuels, food and feed ingredients, biomaterials, fibres, heat and power, aimed at maximizing value and sustainability (Environment, Economy and Society)

Oil vs. biorefinery



Waste is now a valuable resource!

OBSTACLES TO MOVING FORWARD

- Investment
 - Long-term returns
 - Heavy investment by governments needed (e.g., in overseas countries)
- Lack of skills
- Weak regulations
- Technologies still in infancy stages

