

CURRENT STATUS OF BIOMASS UTILISATION IN MALAYSIA

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Introduction

- Malaysia Total land area - 32.90 million hectares

Natural forest	20.10 mil .ha.	(61.0 %)
Agriculture	4.89 mil. Ha	(14.9 %)
- Major agricultural crops: oil palm (43.67%), rubber (30.56%), cocoa (6.75%), rice (12.68%) and coconut (6.34%).
- Major characteristics of the forestry and agricultural sector:
 - large quantities of processing residues which have no economic value.
 - major disposal problem .

Forestry Residues

■ Logging residues	5.10 mil m3
Primary manufacturing residues	2.92 mil m3
Plywood residues	0.91 mil m3
Secondary residues	0.90 mil m3
Total	9.83 mil m3

Agricultural Residues

Rubberwood residues*	11.32 mil m3
Oil palm residues	8.69 mil m3
Rice husk residues	3.41 mil m3
Total	23.42 mil m3

Utilisation of Residues

Quantity of residues used: 9.30 million m³ or 27.0%

- kiln drying of timber,
- manufacture of bricks,
- curing of tobacco leaves,
- drying rubber-sheets
- manufacture of products such as particleboard and fibreboard.
- rest disposed by burning. (use of biomass, particularly rubberwood, for the generation of energy has been going on for the past 30 years.

Biomass Conversion

- Energy in solid wastes particularly biomass can be extracted either by direct combustion or by conversion into a more valuable and usable forms of energy.
- Usually this will be in the forms of solid, liquid or gaseous fuels or upgrading into higher value added products for the chemical industries
 - o solid: charcoal, briquette
 - o liquid: pyrolytic oils
 - o gas : biogas (POME), landfill gas (MSW), producer gas (wood gasification)

Conclusion

- Peninsular Malaysia generates large amounts of wood and agricultural residues,
- Bulk not being currently utilised for any further downstream operations.
- To fully tap the economic potential, the government has actively encouraged industries that are able to reduce the wastage.
- Various studies indicated that the use of biomass as a source of energy is one of the most promising ways of effectively using the residues.