

## **Plant based energy potential and biomass utilization in Malaysia**

### **Abstract**

The paper assesses the energy productivity of the major plantation crops in Malaysia as well as the status of bioenergy utilization in the country. Of the crops studied and under present local cultivation practices, oil palms and cocoa trees stand out as good trappers of solar energy while paddy plants are the least efficient. Presently Malaysia consumes roughly 2097.8 million GJ of energy per year. Of this amount 14% are contributed by biomass. However of the total amount of biowastes generated in the country roughly 24.5% are utilized for energy purposes while the rest are wasted. They are either left to rot or simply burnt as a means of disposal. If all of these unutilized biomass can be harnessed for use as energy, then the contribution of biomass to the nation's energy consumption can be raised to about 59%, a figure that is indeed attractive and therefore should be given serious attention.

**Keywords** — Biomass, fossil fuels, potential energy