

How to create use of agricultural waste, wood waste, overflowing wasted plastics and wasted paper as biomass fuel to power generation

Yoshinobu Kusano Executive Advisor, Japan

Abstract: Agricultural waste, wood waste, overflowing wasted plastics and wasted paper are good source of biomass fuel to power generation. In Japan we have to quickly shift from fossil fuel dependency to renewable energy dependency in order to cope with the worldwide climate change. In the power sector, power generation by biomass fuel should be encouraged. In order to make its power generation cost competitive to other renewables, we have to look for inexpensive biomass fuel. All kinds of palm tree waste, sugarcane bagasse, corn stalks are the good source of biomass, for example. Forest residue such as treetop, branches as well as tree bark are also a good source of biomass. Additionally, look at the wasted plastics. If it is beyond recycle-able volume, then it is better to use those overflowed wasted plastics for power generation. Although these are not biomass, therefore, cannot get any benefit given under the name of biomass, it works well to burn it at the power station. It is environmentally much better than being disposed of to the environment instead. Disposing plastic as a waste: This action will cause marine pollution or to endanger marine life.

Methods: In recent decades, projections involving population growth, changes in consumption patterns, modifications of the wastes produced, and a significant increase in resource extraction have caused concern in the scientific world, in treatment companies, and in environmental and governmental agencies throughout the world, regarding the destination of the large volume of solid wastes generated, the relatively high contents of potentially toxic, carcinogenic and mutagenic substances and pathogenic microorganisms. Waste management has become very important to ensure elementary resources such as water, phosphorus, and food in the future. The recycling policy thus requires that wastes be classified in terms of their appropriateness for new uses and also based on their origins and hazardousness of handling. These classifications are essential in order to allow a minimum of rationality in their new destinations. Currently, several studies have been performed to use solid wastes from human activities as soil conditioners and/or fertilizers for increasing crop productivity. Therefore, studies that monitor organic waste effects on agricultural soils deserve the attention of the international scientific community, as it enables increases in the productivity of agricultural crops, fiber, and biomass energy combined to reduce risks to human, plant, and animal health and environment.