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Promoting the utilization of biomass for food and non-food applications

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This presentation aims to make a contribution to the recent discussion about utilization of biomass and other organic waste for food and non-food industrial uses. Biomass is a renewable organic material, e.g. agricultural crops, woods, grasses, or municipal wastes. Traditionally, the biomass has been used for feed, energy, industrial material, and food. More recently, biofuel production from biomass has been the latest tendency at public sector. However, with a continuous growing world population, the first priority of biomass utilization allocation is food scarcity. At the end of 2014, there were about 8 billion people in the world. The global population should reach more than 9.3 billion people by 2050. This alone will lead to a 60% increase in biomass demand. Increasing meat consumption and higher living standards will generate additional demand for biomass. Moreover, over one billion low-income countries people are already malnourished by lack of protein, vitamins and minerals. Current food production systems in the world can't cover these escalated food insecurities. Some biomass such as micro-algae, soybean hull, and sugarcane bagasse are a rich source of carbohydrates, protein, fiber, antioxidants, and/or vitamins. Consequently, this presentation debates the current and future bioenergy trends, and introduces utilization of biomass to food production through the case studies.

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