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## Energy Conversion and Management

Volume 49, Issue 8, August 2008, Pages 2106-2116

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# Biofuels sources, biofuel policy, biofuel economy and global biofuel projections

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<https://doi.org/10.1016/j.enconman.2008.02.020>

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### Abstract

The term biofuel is referred to liquid, gas and solid fuels predominantly produced from biomass. Biofuels include energy security reasons, environmental concerns, foreign exchange savings, and socioeconomic issues related to the rural sector. Biofuels include bioethanol, biomethanol, vegetable oils, biodiesel, biogas, bio-synthetic gas (bio-syngas), bio-oil, bio-char, Fischer-Tropsch liquids, and biohydrogen. Most traditional biofuels, such as ethanol from corn, wheat, or sugar beets, and biodiesel from oil seeds, are produced from classic agricultural food crops that require high-quality agricultural land for growth. Bioethanol is a petrol additive/substitute. Biomethanol can be produced from biomass using bio-syngas obtained from steam reforming process of biomass. Biomethanol is considerably easier to recover than the bioethanol from biomass. Ethanol forms an azeotrope with water so it is expensive to purify the ethanol during recovery. Methanol recycles easier because it does not form an azeotrope. Biodiesel is an

environmentally friendly alternative liquid fuel that can be used in any diesel engine without modification. There has been renewed interest in the use of vegetable oils for making biodiesel due to its less polluting and renewable nature as against the conventional petroleum diesel fuel. Due to its environmental merits, the share of biofuel in the automotive fuel market will grow fast in the next decade. There are several reasons for biofuels to be considered as relevant technologies by both developing and industrialized countries. Biofuels include energy security reasons, environmental concerns, foreign exchange savings, and socioeconomic issues related to the rural sector. The biofuel economy will grow rapidly during the 21st century. Its economy development is based on agricultural production and most people live in the rural areas. In the most biomass-intensive scenario, modernized biomass energy contributes by 2050 about one half of total energy demand in developing countries.



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## Keywords

Biofuel; Bioalcohol; Biodiesel; Biogas; Bio-oil; Bio-char; Biohydrogen

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