



**International  
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#### IEA views about Biofuels

The recent shortage in grain stocks and surge in food prices have triggered questions about the sustainable production of biofuels. In reality, there are a number of important factors impacting food supplies and prices, including surging food demand, failed harvests and high energy prices.

Biofuels do have an impact but the IEA considers it very important to differentiate between types. On one hand, most biofuels are attractive in that they may serve to replace imported oil and help diversify energy resources. However, some current ("first generation") biofuels, such as ethanol from grains and biodiesel from oil seeds, may compete with food, fibre and feed production, although currently less than 2 percent of global agricultural cropland is used for biofuels production. (Source: Worldwide Institute, "Biofuels for Transport: Global Potential and Implications for Agriculture", report prepared for the German Federal Ministry of Food, Agriculture and Consumer Protection, 2007).

Biofuels can be produced in a more sustainable way and, properly managed, they can offer valuable benefits to OECD and developing countries. The use of sustainable biofuels can increase energy security, foster economic development, especially in rural areas, and reduce greenhouse gas emissions. Ethanol from sugar cane produced in the tropical/sub-tropical regions such as Brazil, southern Africa and India, for example, has excellent characteristics in terms of economics, CO<sub>2</sub> reductions and low land use requirements.

"Second generation" biofuels from ligno-cellulosic feedstocks (straw, woody biomass residues, vegetative grasses) hold considerable promise for eventually providing more sustainable types of biofuels. Although they remain relatively costly options to date, through on-going public and private research and deployment investments, much progress has been made in recent years. Several small and medium-scale conversion facilities to convert ligno-cellulosic biomass to either ethanol or to synthetic diesel are expected to come on line over the next 2-3 years in countries such as the United States, Canada and Germany. The IEA calls on governments to increase their support for 2nd generation biofuels RD&D at this critical juncture, to consider phasing out current incentive support schemes for biofuel technologies as they reach maturity, and to explore a rapid transition to policies that promote advanced biofuels.

Biofuels are playing an increasingly important role in meeting growing transport fuel demand. They represented 49% of the growth in Non-OPEC oil supply in 2007 and this share is expected to rise to 55% in 2008. An upcoming IEA publication, Energy Technology Perspectives 2008, will show that biofuels may have to play a significant role if the world is to make meaningful reductions in carbon dioxide emissions. In the report's most ambitious scenario, advanced biofuels supply about 700 million tonnes of oil equivalent, representing 26% of total transport fuel demand, by 2050.

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