



INTERNATIONAL ENERGY FORUM

ASSESSMENT OF BIOFUELS POTENTIAL AND LIMITATIONS

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BACKGROUND

The Closing Statement of the 11th IEF in Rome, 20-22 April 2008, contains the following paragraph on biofuels: “While welcoming the development of alternative sources of energy, Ministers highlighted some drawbacks and limits of biofuels. A realistic and comprehensive assessment of their future and potential environmental and economic implications is an important factor for investment decisions in the coming years. The IEF Secretariat was asked to work together with IEA, OPEC, and other relevant organizations to ensure this assessment will become available”.

As a follow-up, Mssrs. Claude Mandil and Adnan Shihab-Eldin jointly undertook this assessment, with the help of the IEF Secretariat, and working together with IEA, OPEC, and other relevant organizations.

The full report can be downloaded from www.ief.org



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KEY FINDINGS

- Most of the initial biofuel production targets, many of which remain in place, are either too ambitious or are unsustainable over the long term.
- Oil producers may feel justified in adopting a cautious approach to investment decisions on incremental production capacity if they perceive a risk that energy security and climate change policies will erode or destroy demand.
- Mounting evidence indicates that for most first generation biofuels, the net impact on GHG emission reduction is, at best, marginal and in some cases, unfavourable.
- Within the first generation of biofuels, there is a clear consensus that only one is acceptable – ethanol produced from sugarcane in Brazil.
- Another major concern associated with current biofuel development is the risk of food price escalation due to the conversion of existing food crops into biofuel production and future competition for arable land.
- Undoubtedly, some biofuels will contribute significantly to the future mix of liquid transportation fuels, but establishing firm targets for promising next generation biofuels, without a careful evaluation of their long term sustainability, would be premature.

RECOMMENDATIONS

- There is an urgent need to review existing biofuel policies in an international context to avoid environmental and economic mistakes, to protect the poor and to safeguard against food insecurity.
- Each biofuel project's development plan should include a comprehensive life cycle assessment (LCA) to determine its net impact on the GHG balance, among other key factors. A standardized LCA methodology should be developed.
- Future biofuel production and use should meet several essential criteria: it should result in significant GHG savings compared to fossil fuels; rely on environmentally sound agricultural and forestry management systems for production of feedstock; preserve biodiversity and cultural heritage; be socially inclusive; and integrate with food, feed and other biomass use sectors.



BIOFUELS ASSESSMENT REPORT