

*“Biofuels for Transportation – Global Potential and Implications for Sustainable Agriculture, Energy, and Security in the 21st Century”*

# *Panel: Investment and Technologies on the Horizon*

*Words from the Moderator*

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## Investment and Technologies on the Horizon

- *New technologies to convert biomass and wastes into biofuels*
- *Opportunities for both small and large scale producers*
- *Integrated bio-processing plants, co-products and bio-refineries*
- *Potential for demand management and fuel-efficiency technologies*
- *Innovative transport infrastructure to expand biofuels use*
- *Trade, investment financing, risk, opports.*

## Barriers to Biofuels Penetration

- *Risk perception*
- *Venture capital availability*
- *Marketing approaches*
- *Lacking trade, infrastructure*
- *Public policies, innovation system, the environment*
- *Sustainable supply, well functioning market*
- *Mindset oblivious of fuels scarcity*
- *Limits to supply of biofuels*
- *Opportunities for innovation*

# *Drivers to Biofuels Penetration*

- *Stakeholders' consensus at all levels*
- *Technological innovation, trade and investment*
- *Delinking biofuels from the food/feed markets*
- *Biofuels directives in the EU*
- *Renewable Energy Portfolio Standards in US*
- *Growth in China, India, Indonesia, Malaysia and Thailand, LA, Africa*
- *Japan biofuels demand*
- *LT future looking investors, e.g. Goldman Sachs*

## *Oil versus Biofuels*

- *Higher oil prices, higher opportunity cost for biofuels*
- *Larger biofuels scales, but overall supply limits*
- *Build up local, regional, global mkts*
- *New technology-based modern and efficient biofuels*
- *Lower biofuels costs*
- *Sustainability of biofuels depends on international trade*

## Suggested Issues for the Panel:

- Efficiency improvement: biofuels, infrastructure and transportation powertrains of the future
- Cellulosic-derived technologies, and flexibility to available feedstocks
- Delinking biofuels from food/feed crops
- Role of multilateral, private and government financing and policies in mitigating risks of biofuels
- Sustainable int'l trade of biofuels