RSPO
Roundtable on Sustainable Palm Oil

The Food vs. Fuel Debate

Ben Ridley,
Credit Suisse AG

Drawing extensively on the
FAO Statistical Yearbook 2012, and the OECD-FAO Agricultural Outlook 2011-2020

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In the news… and often

High and volatile food prices are the new normal: we must act now

Poor people are being hit hard: the international community must invest in agriculture, stop tax dodging and end biofuel subsidies

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David McNair
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Global development
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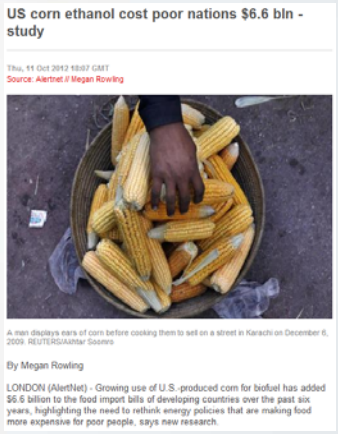
A field in Ivory Coast planted with jatropha, which can be used as a fuel. The FAO and NGOs say food insecurity is being exacerbated by shifting land from food to fuel production. Photograph: Kambou Sia/AFP



US corn ethanol cost poor nations $6.6 bln - study

Thu, 11 Oct 2012 10:07 GMT
Source: Alertnet // Megan Rowling

A man displays ears of corn before cooking them to sell on a street in Karachi on December 6, 2009. REUTERS/Akhtar Soomro

By Megan Rowling

LONDON (AlertNet) - Growing use of U.S.-produced corn for biofuel has added $6.6 billion to the food import bills of developing countries over the past six years, highlighting the need to rethink energy policies that are making food more expensive for poor people, says new research.

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Food availability

- Population growth
  - More mouths to feed, mostly in developing countries and in cities
- Shifting dietary trends
  - More protein, more calories
    - Dietary diversification and adaptation (urban lifestyle > convenience foods)
    - Vegetable oil a major contributor to increased calorie intake
- Do we produce enough food?
  - Currently, yes
  - Food distribution is the primary challenge

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Hunger dimensions

- Hunger is a multidimensional phenomenon
  - poverty and food availability, food access, nutritional balance, etc.
- Most food insecurity is in rural South and SE Asia
  - rural poor tend to be 'net' food purchasers
  - hidden hunger: lack of dietary diversity and poor quality food intake
- Significant vulnerability to drought and other disasters
  - 350 million affected in 2010; mostly in Asia and sub-Saharan Africa
  - many of those affected already suffering from acute food-insecurity

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Future food production requirements

- Future agricultural production needs a major boost
  - Production must grow 60% above 2005-07 levels to meet 2050 needs
- More of the same?
  - 170% production growth since the 1960s mostly due to increased yield
    - Intensification at a cost?
    - The role and significance of new technological applications?
- Land availability constraints
  - 12% of all land areas currently cropped; not many options available
    - Best expansion prospects in LatAm and sub-Saharan Africa

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Oilcrops

- Steady increase in global demand
  - Two decades of growth in developed and developing markets
    - Annual growth of 4.3% compared with 2.3% for all agriculture
    - 40% of the growth increase due to developing country food demand (e.g., China)
    - Strong demand for protein rich livestock feed
- A handful of crops dominate
  - 168 million tonnes of oilseeds and oilcrops gathered in 2010
  - Oil palm, soybean, rapeseed and sunflower-seed: 75% all production
    - 40% of supply used in non-food applications, and increasingly biodiesel

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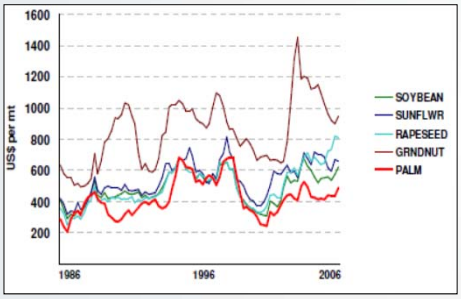
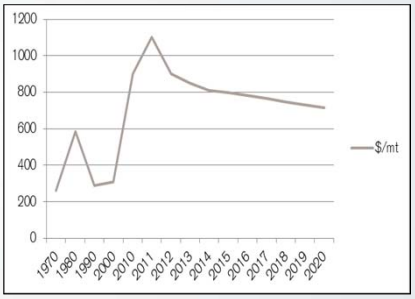
Oilpalm affordability

World prices for selected edible oils



Palm oil price trend and forecast



Sources: FAO (L) / UNCTAD (R)

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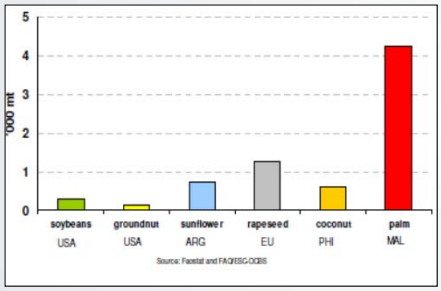
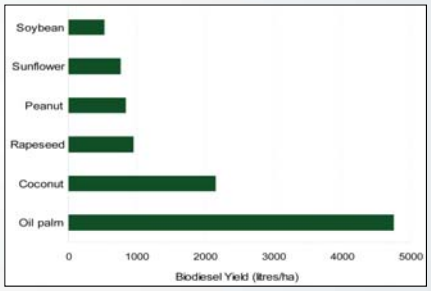
Oilpalm productivity

Oilcrop yields / ha / year (2002-2004 ave.)



Competitive biodiesel yield



Sources: FAO (L) / Lester, 2006 (R)

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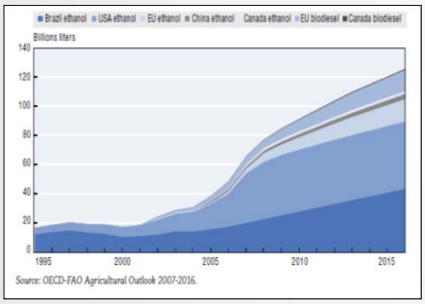
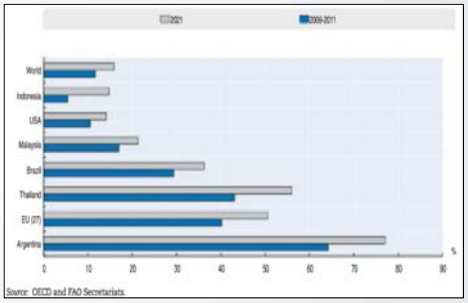
Projected growth in biofuels

Trends and forecast in biofuel growth



Share of edible oil as biodiesel by country / region



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Policy developments

China	12th Five-Year Plan: goal of utilizing 5 million tonnes of bio-ethanol No promotion of biodiesel | Smallscale biodiesel production (kitchen oil) widespread
EU	Renewable energy policy: Plans to limit food-based biofuels to 5% of all transport fuel by year 2020 (effectively the same as current usage)
India	National Biofuel Policy: Indicative target of 20% blending of biofuels by 2017 | Focus on inedible Jatropha oilseed
Indonesia	Renewable Energy Policy: Raised subsidy for biodiesel manufacturers in 2012
Malaysia	Renewable Energy Policy: Implemented mandatory sale of palm oil-based biodiesel (B5) in parts of the country
USA	Renewable Energy Policy: Determined that palm oil-based biodiesel does not qualify as renewable fuel under US bioenergy policy due to insufficient reduction in GHG emissions

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A basis for sustainable palm oil biodiesel?

- Grow on degraded land
  - Low conservation value and low carbon stock
- Reduce GHG emissions at mills
  - Methane capture and other technologies
- Develop regional export markets (India and China)
  - Complement 1st and 2nd generation domestic biofuel developments
- Comply with BEFSCI* principles: bioenergy production should be…
  - …sustainable and should safeguard and, if possible, foster food security

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* Bioenergy and Food Security Criteria and Indicators (FAO,

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