

# Food vs. Fuel Webinar

## National Biomass Partnership



**Mark Muller**

**September 10, 2008**



Institute for Agriculture and Trade Policy

# Biofuels are not inherently beneficial or destructive – they may or may not...

- Strengthen the agricultural economy and improve soil and water resources
- Reduce global poverty and hunger
- Create alternatives to fossil fuels

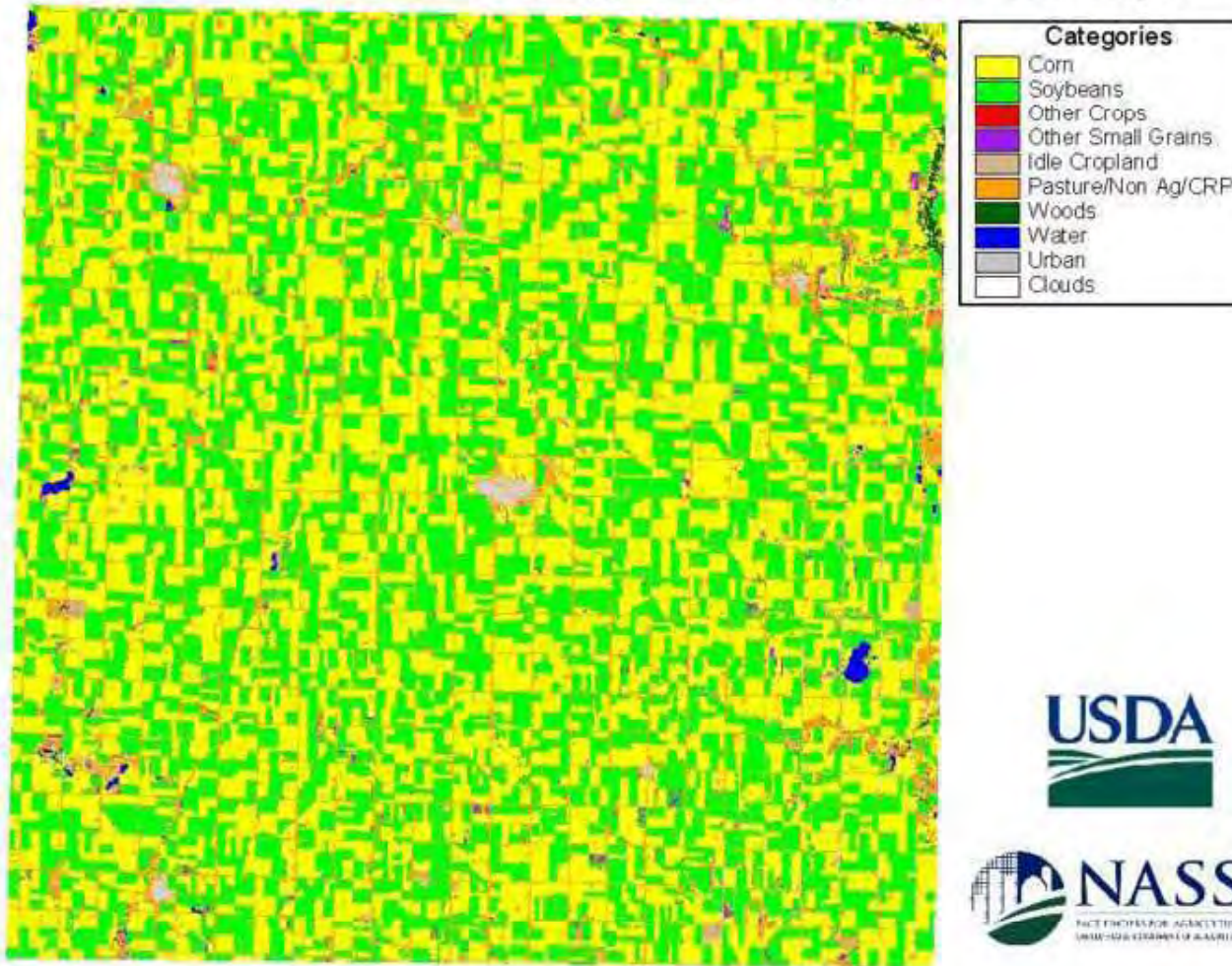


**Sound Policy is Crucial!**



# Landscapes Aren't Built in a Day

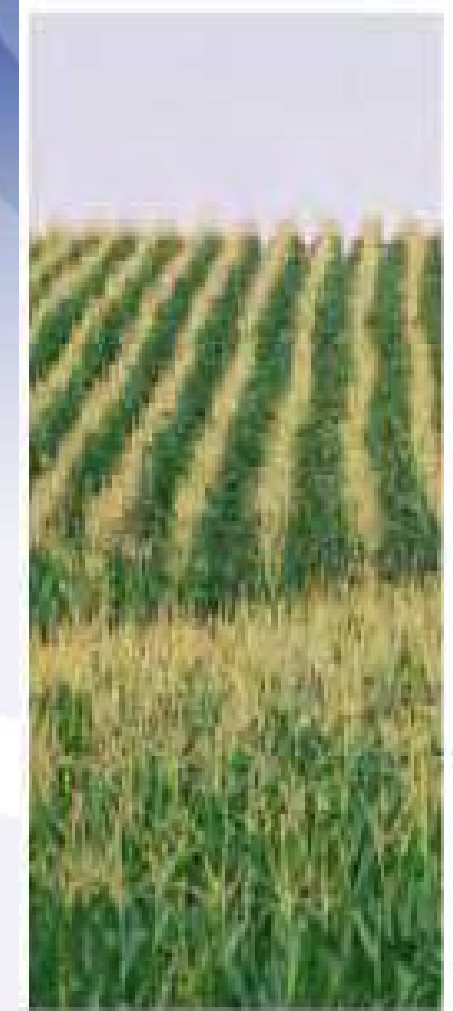
2004 Pocahontas County, Iowa Cropland Data Layer



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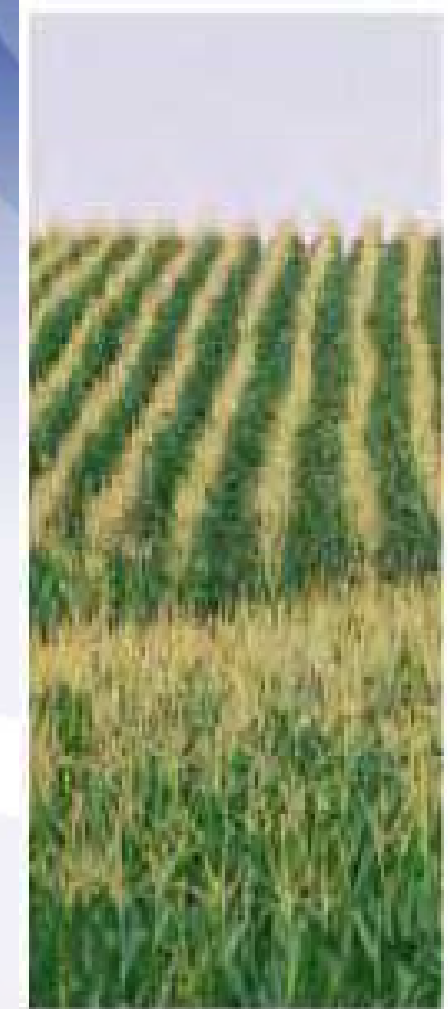
# Food vs. Fuel Issues

- The drivers of agricultural commodity prices
- U.S. ethanol's impact on world food supply and price
- Getting a more functional marketplace for farmers



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# What's Causing Price Increases?

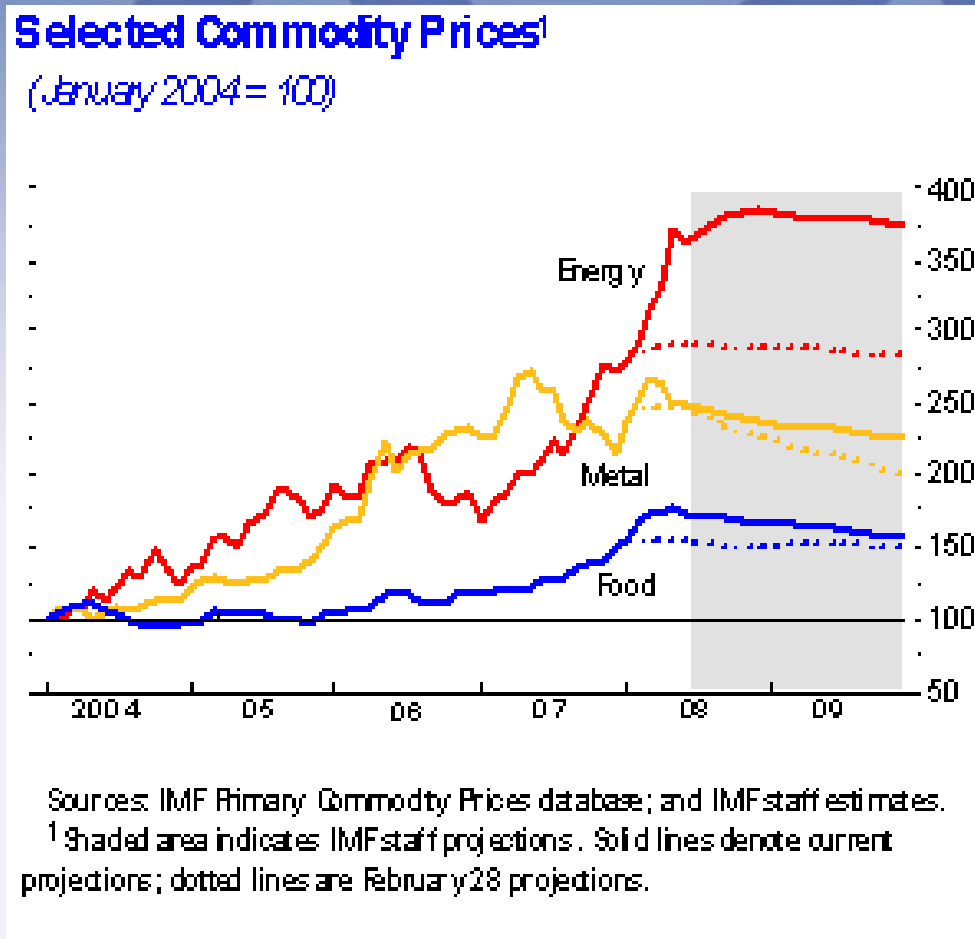
- Growth in demand due to population growth, meat consumption and biofuels
- Increase in fossil fuel prices
- Weather and crop disease issues
- Depreciation of the U.S. dollar
- Government intervention through the subsidization of biofuels and other policies
- Increased price volatility due to expanding trading volumes by speculators
- Lagging investment in agricultural research



# What the IMF says

## World Economic Outlook Update, July 2008

- $\frac{3}{4}$  of increased corn consumption due to ethanol
- Rising energy prices a strong contributor to food price increases
- Supply has been slow to respond to price increases



# **“Rising food prices: Policy options and World Bank response”**

**April 2008**

- **Biofuel production a major contributor to price increases (one WB researcher says 70-75%)**
- **15% of increase due to higher energy costs**
- **High prices will persist**
- **Energy security and CO<sub>2</sub> policies may have strong tradeoffs with food security objectives**



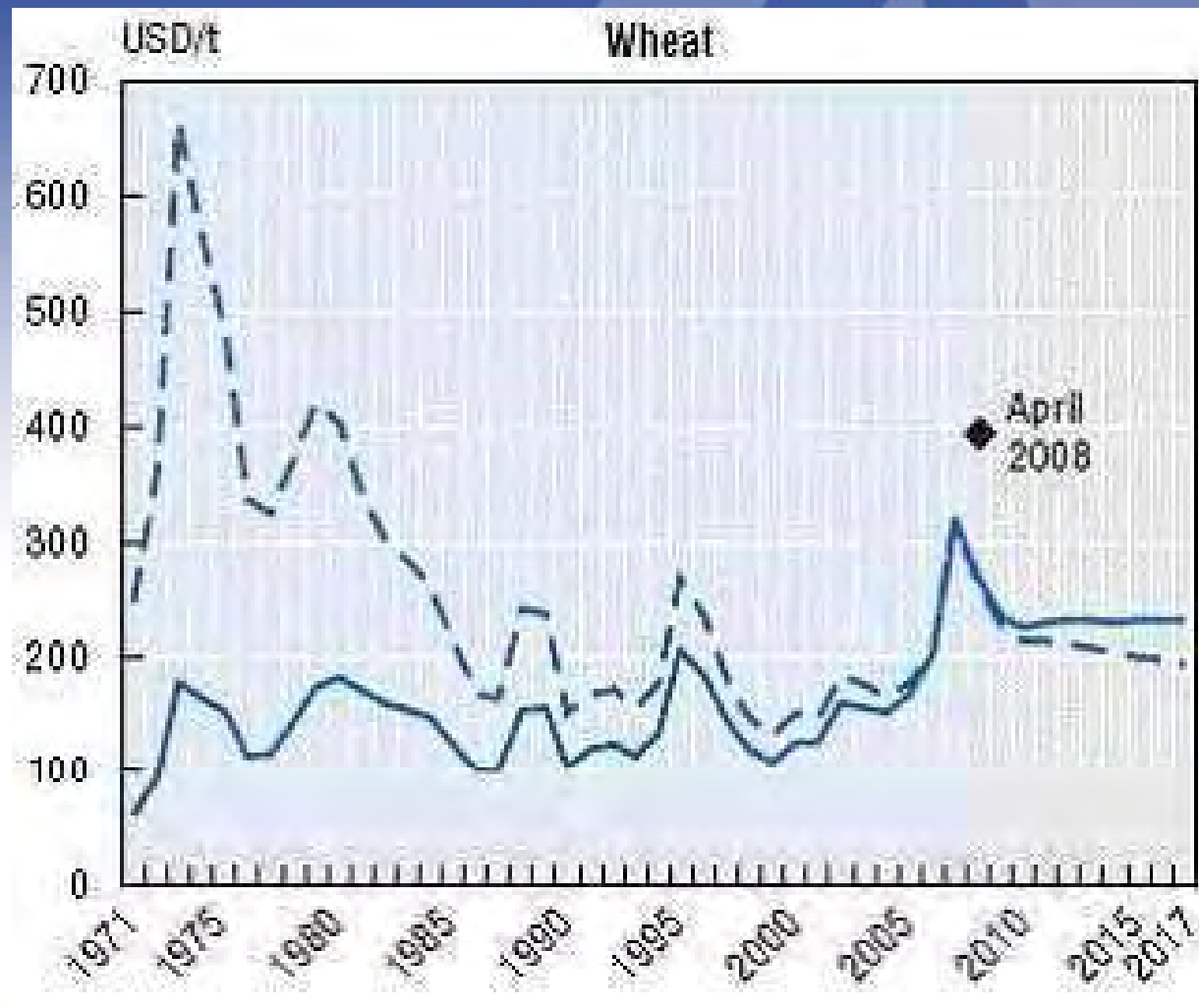
# What the OECD-FAO says

## Agricultural Outlook 2008-2017, May 2008

- Increases in supply will eventually outweigh demand, and prices will resume their decline
- Prices may become more volatile with lower grain stocks, climate change impacts and more speculation
- Higher crop prices hurts some developing countries and helps others



# Real Grain Prices Far From Peak



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# What's Preferable?

## High Grain Prices Have Resulted in

- Food riots in Haiti
- Political unrest in Malaysia and Bangladesh
- Higher costs of living for urban poor in developing countries
- Better farm income in US and throughout the world
- Skyrocketing land values



# What's Preferable?

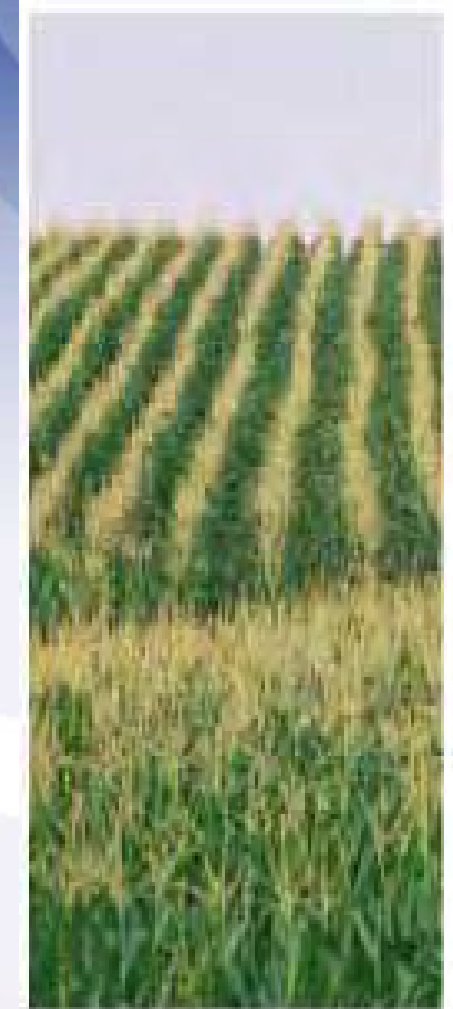
## Low Grain Prices Have Resulted in

- The slow devastation of agricultural economies throughout the world
- More affordable food for urban poor in developing countries
- More confined livestock production systems
- Developed countries spending billions to keep farmers viable

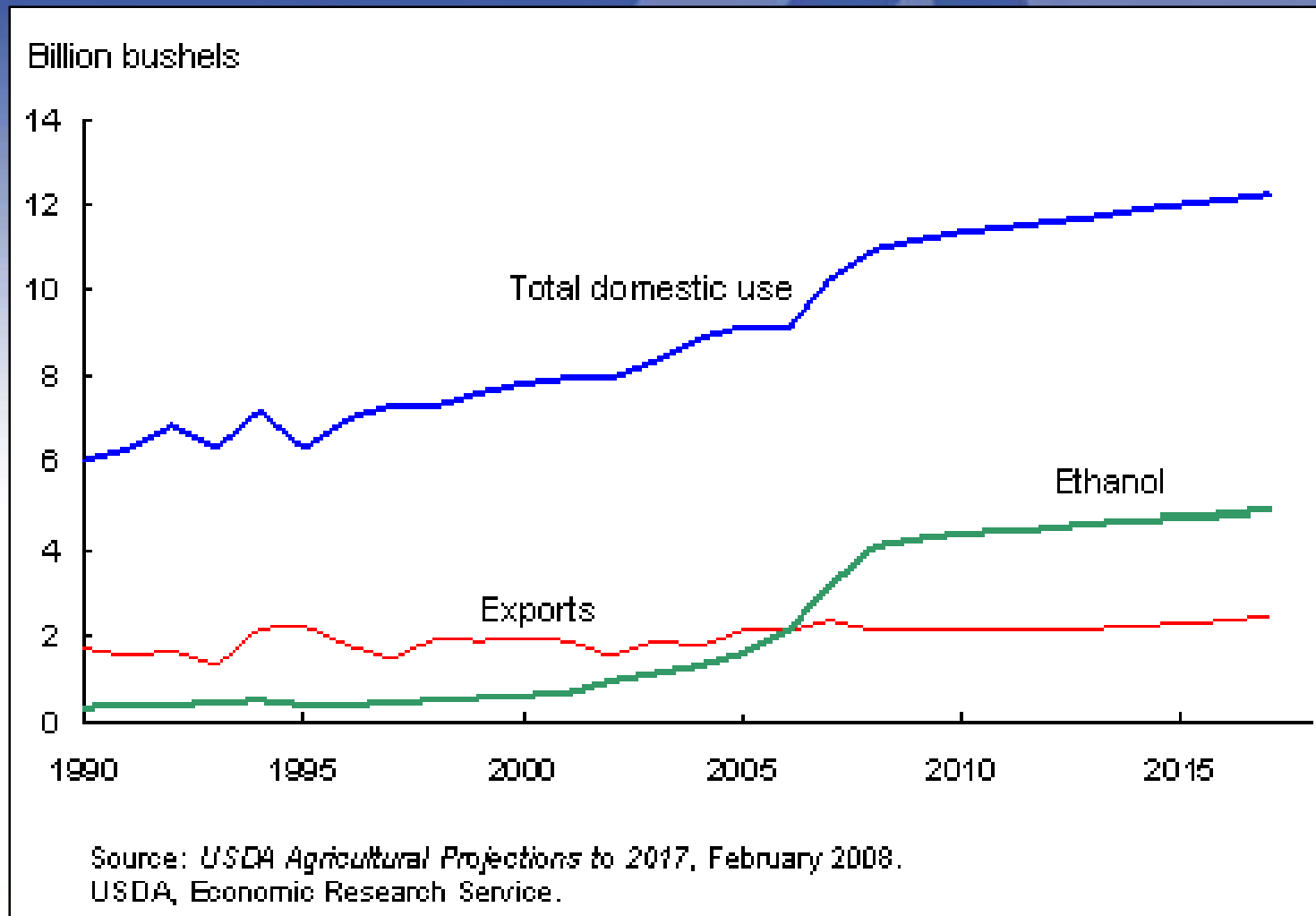


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# Corn Exports Projected to be Flat



# Corn Exports to the World's 10 Most Undernourished Countries

Tons

50000  
40000  
30000  
20000  
10000  
0

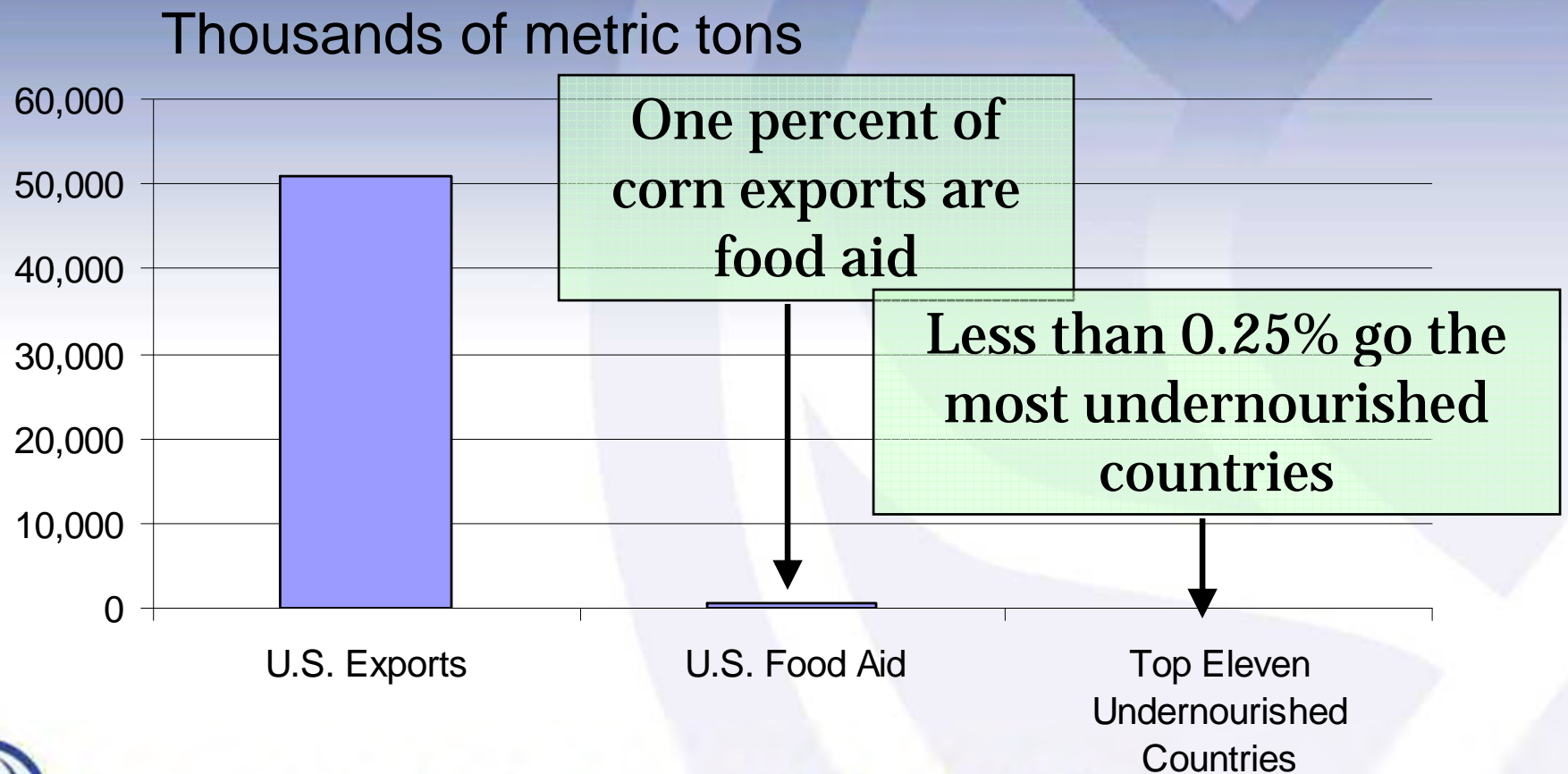
Eritrea  
Dem. Rep. of Congo  
Burundi  
Comoros  
Tajikistan  
Sierra Leone  
Liberia  
Zimbabwe  
Ethiopia  
Haiti

The U.S exports 350 times more corn to Japan than all of these countries combined



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# U.S. Food Aid Corn and Corn Products



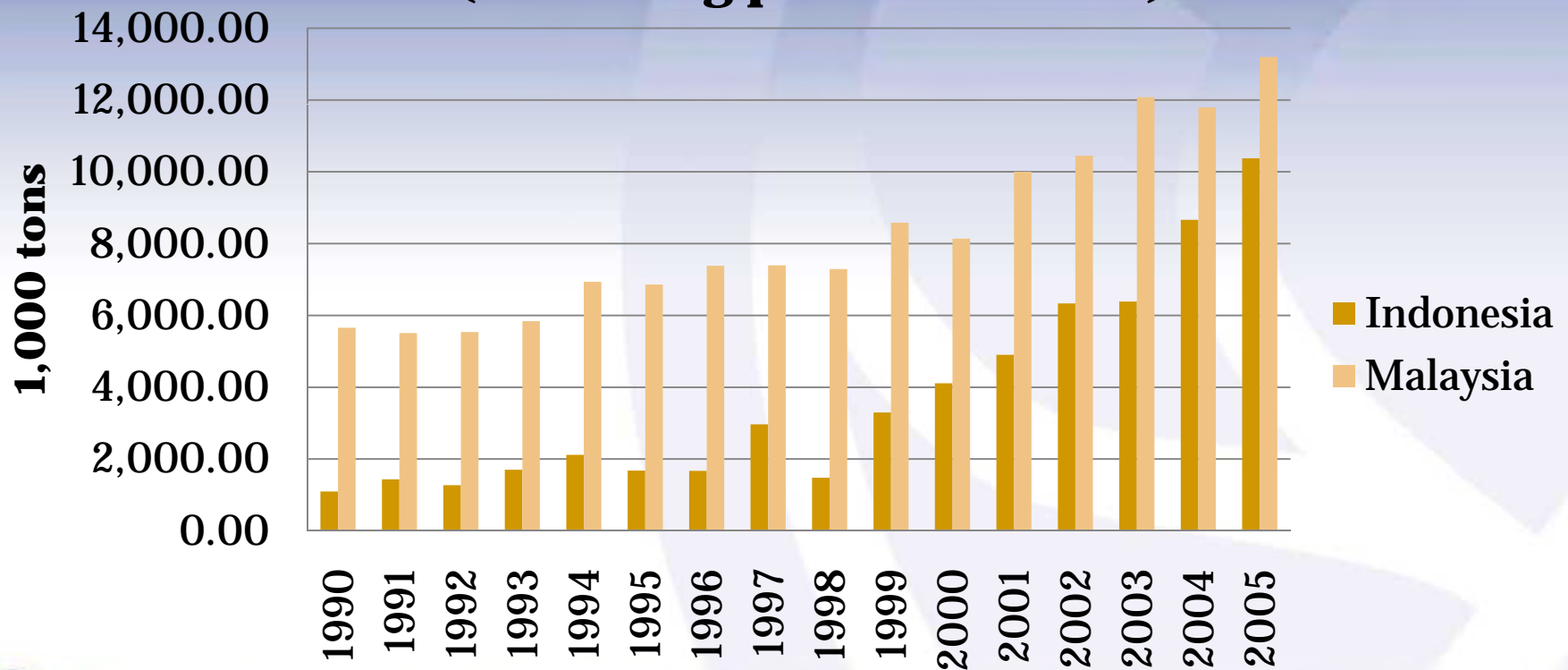
# Biofuel policies around the world

Country	Target 1	Target 2
Brazil	20-25% ethanol in 2007	5% biodiesel by 2013
China	5 provinces use 10% ethanol blend	Five more provinces targeted for 10% ethanol blend
EU 27	10% ethanol and biodiesel by 2020	
India	10% ethanol blend in 2008	5% biodiesel by 2012
United States	36 billion gallons by 2022	15 billion gallons of corn-based ethanol by 2015; 5.5 billion gallons of non-corn ethanol by 2015; 21 billion gallons of non-corn by 2022; 1 billion gallons of biodiesel by 2012.
Indonesia	10% biofuel by 2010	
Malaysia	5% biodiesel on public vehicles	



# Biodiesel contributing to huge land use change in SE Asia

## Palm Oil Export Malaysia/ Indonesia 1990 - 2005 (excluding palm kernel oil)



# We Now Know Many More Known Unknowns

- Where are petroleum prices going?
- What is happening with cellulosic ethanol and other alternative fuels and energies?
- Future impacts of climate change?
- Growth in agricultural production in Brazil, Ukraine, Russia, China, and sub-saharan Africa?
- What about global water shortages and its impact on agriculture?

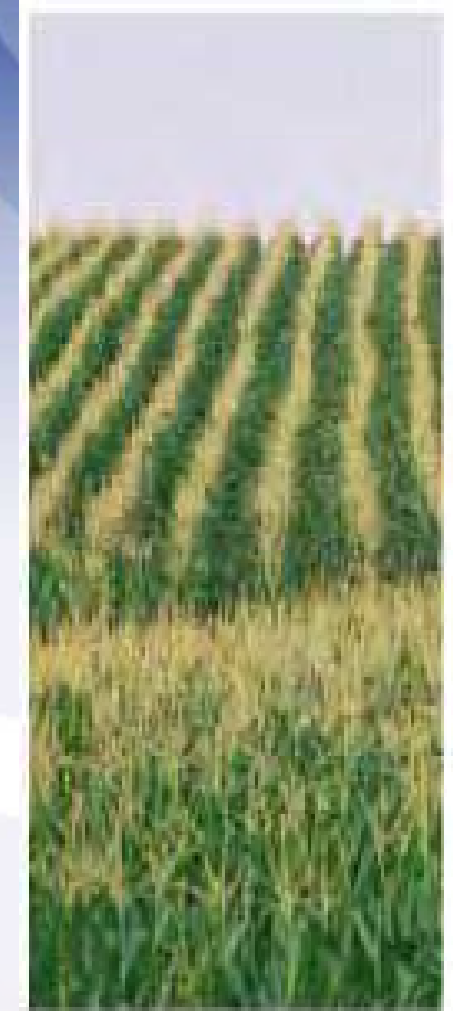


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# OECD Sec-Gen Angel Gurría



**“The way to address rising food prices is not through protectionism but to open up agricultural markets and to free up the productive capacity of farmers, who have proven repeatedly that they will respond to market incentives.”**

**May 29, 2008**



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# Unfortunately, biological systems don't always respond to market incentives

- Long growing season
- Enormous productive capacity that will be used
- Few other farming options
- Lots of uncontrolled variables like weather
- Natural resources overexploited in times of high and low prices



# A Sustainable Bioeconomy

- Soil and water resource are strengthened rather than depleted
- Productive capacity will only get more important in future years
- Keep land in agriculture, and keep innovative farmers on the land



# Thank You

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