

CFANS Solution-Driven Science Symposium



The Food Industry Center
UNIVERSITY OF MINNESOTA

Sustainable Solutions for the Delivery of Healthy Foods

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Convergence of Concerns/Movements



1. **Sustainable Agriculture** – soil, water, air quality, rural lifestyle and natural food.
2. Climate change – **sustain** the global environment
3. Rising food prices around the world – **sustain** food supply, reduce hunger
4. Food as preventative medicine – **sustain** and enhance health



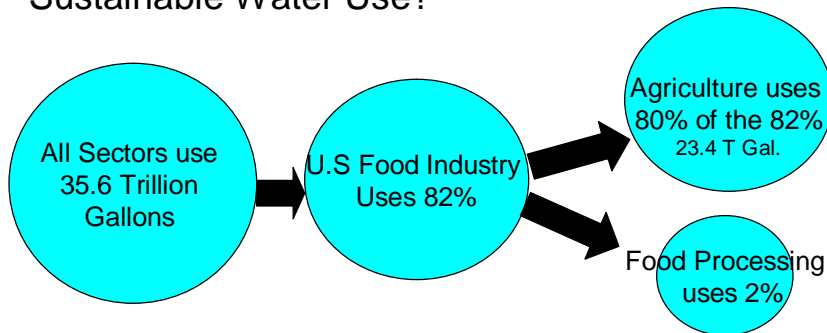
1. Sustainable Agriculture – soil, water, air quality, rural lifestyle and natural food.



Sales grow 20% per year; \$18 Billion; 2.5% of food store sales

2. Climate change – **sustain** the global environment

Sustainable Water Use?

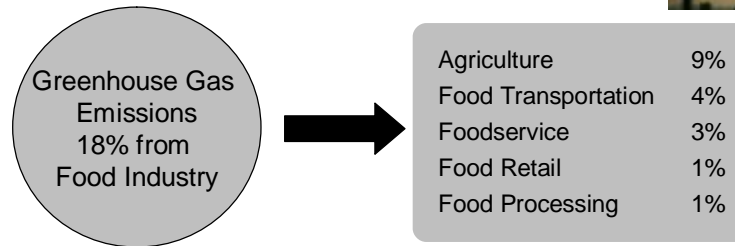


Source: Gene Kahn, General Mills; USDA, ERS; U.S., Geological Survey



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Sustainable Environment?



Agriculture is responsible for an estimated 1/3 of global warming and climate change worldwide.” (UN FAO 2001)

Source: Gene Kahn, General Mills; EPA; EIA Commercial Building Survey; RFF

Sustainable **Solutions** for the Delivery of Healthy Foods

Corporate Social Responsibility – One company’s goal

Between 2005-2010 we will reduce:

- **Water usage:** 5%**
- **Energy usage: 15%**
- **Greenhouse gas: 15%**
- **Solid waste: 15%**

** Save 5.7 Billion Gallons per year = enough water for a city of 94,000 people (Source: Gene Kahn General Mills)

3. Rising food prices around the world –
sustain food supply, reduce hunger

Is “Local/Sustainable/Organic” an elitist approach?

Healthy food – must be egalitarian!

Can we feed the world?



3. Rising food prices around the world –
sustain food supply, reduce hunger

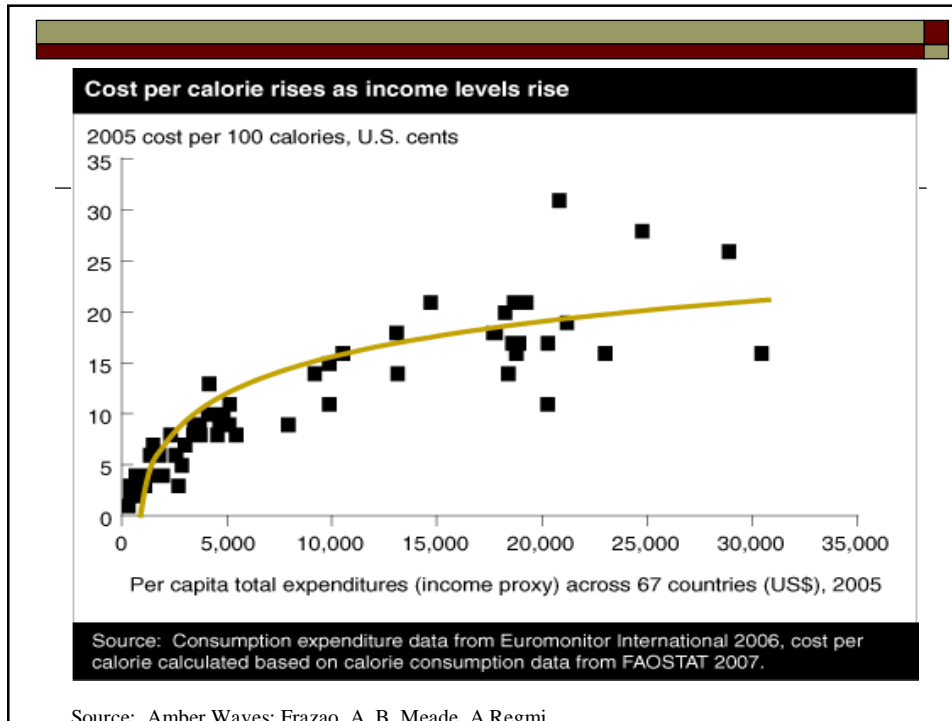
Growth in developing economies 5-16% (2004-06)

Ø Rising incomes of households

Ø Increased demand for animal protein, fruits and vegetables

Ø Increase in demand for ready-to-cook and ready-to-eat foods





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Growth in developing economies 5-16% (2004-06)

Ø Shortage of grains for feed and food and bio fuels

Ø Rising price of grains and other foods

Ø Exacerbated by climate change: Increase in 3^o C -> 40% rise in price of food and agricultural products

Ø Food Expenditures in developing countries decline as prices rise and they substitute poorer quality nutrition and get fewer micronutrients.

Will we move Fast Enough?

Incorporating the effects of climate change, the expected number of undernourished will grow by:

3 times in Sub-Saharan Africa
1.5 times in the Middle East and North Africa. (Source: J. van Braun, IFPRI)



4. Food as preventative medicine – **sustain** and enhance health for the rich and the poor

Examples:

Kraft: food products with a de-worming ingredient

Asoyla: trans-fat free soybean oil

Numerous functional foods, energy drinks, etc.

On going research about the benefits of food ingredients for particular health conditions



“Do no Harm! ” Food should not contribute to chronic illness or to acute illness.

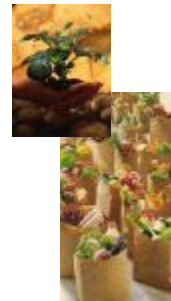
Sustainable Solutions for the Delivery of Healthy Foods

- Sustainable agriculture will meet the needs of the present while improving the ability of future generations to meet their own needs by:
 - n Increasing productivity to meet future nutritional needs while decreasing impacts on the environment
 - n Improving human health through access to safe, nutritious food
 - n Improving the social and economic well being of agricultural (*and urban*) communities.

Source: The Keystone Center, Sustainable Ag Initiative, Spring 2007

Sustainable Solutions for the Delivery of Healthy Foods

- Sustainability around the world is everybody's business.
- Small changes every day in many small things (growing crops, packaging, transport, portion control and reducing waste) can reduce embodied carbon substantially.
- A healthy environment produces healthier food and also healthier people.



Thank you. Jean Kinsey jkinsey@umn.edu
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