

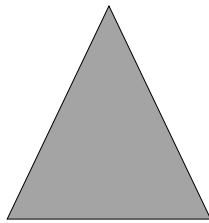
**Hunger, Obesity and the
Environmental Cost of Food:
Disconnected Pieces of the Same Puzzle**

**Kelly D. Brownell
Yale University**



www.YaleRuddCenter.org

**Environment,
Sustainability**



**Obesity,
Nutrition**

**Hunger,
Food Security**

Examples of Conflict

Hunger & Obesity

- School commodity programs

Sustainability & Hunger

- Corn to ethanol supports
- Green Revolution
GMOs, fertilizers, pesticides, irrigation

Environmental activists "... have never experienced the physical sensation of hunger. They do their lobbying from comfortable office suites in Washington or Brussels. If they lived just one month amid the misery of the developing world, as I have for 50 years, they'd be crying out for tractors and fertilizer and irrigation canals and be outraged that fashionable elitists back home were trying to deny them these things."

- Norman Borlaug

Tierney, NY Times "Greens & Hunger"
May 19, 2008

Projected World Increases in Diabetes (2003-2025)



International Diabetes Federation

Country Populations

Chile	16,000,000
Canada	30,000,000
Spain	44,000,000
South Africa	47,000,000
Mexico	107,000,000
Japan	128,000,000
Nigeria	132,000,000
United States	300,000,000
Total	804,000,000

World Total Hungry and Undernourished 862,000,000

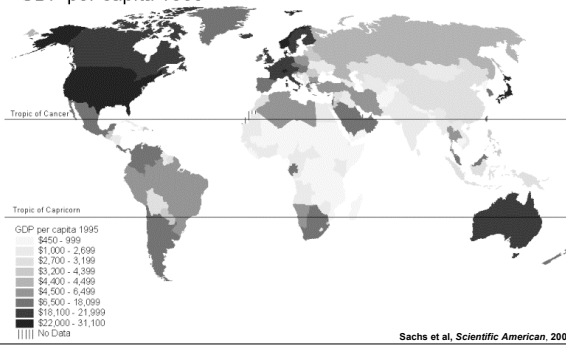
The World Distribution of Hunger



http://www.wfp.org/country_brief/hunger_map/map/hungermap_popup/map_popup.html

The Geographic Distribution of Poverty

GDP per capita 1995



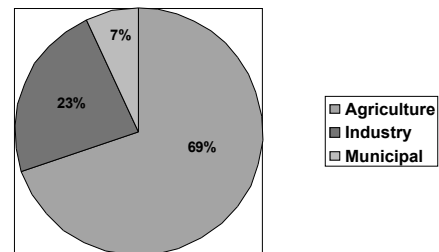
Food and Sustainability



Water

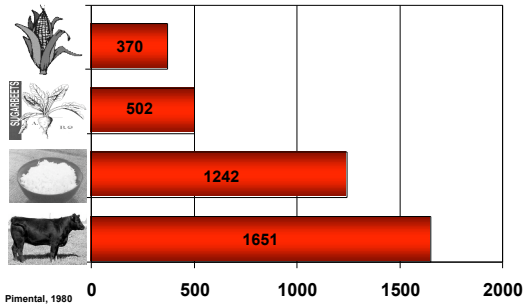


Global Water Use



Postel, 1996
Worldwatch Inst.

Gallons of Irrigated Water to Produce 1 kg of...



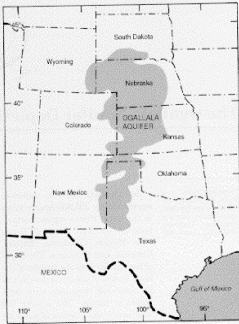
Pimental, 1980

Water to Produce Daily Food for One Person

1320 gallons

Millstein & Lang, 2008
The Atlas of Food

Water Depletion is Underway



Ogallala Aquifer

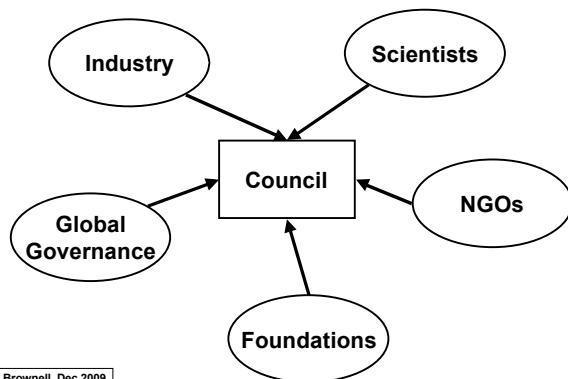
- In 8 states
- Major ag. resource
- Unusable in 20 years

Consuming the World's Grain

- 40% of UK wheat feeds livestock
- 73% of Canadian grain feeds livestock
- 66% of deforestation in Central & South America creates livestock pasture

Millstein & Lang, 2008
The Atlas of Food

Food & Environment World Council



Brownell, Dec 2009

Economic Change in Food Systems

Taxes on Sugar Sweetened Beverages

The NEW ENGLAND JOURNAL of MEDICINE

Perspective
APRIL 30, 2009

Ounces of Prevention — The Public Policy Case for Taxes on Sugared Beverages

Kelly D. Brownell, Ph.D., and Thomas R. Frieden, M.D., M.P.H.

Sugar, rum, and tobacco are commodities which are nowhere necessities of life, which are become objects of almost universal consumption, and which are therefore extremely proper subjects of taxation.

Adam Smith, *The Wealth of Nations*, 1776

creasing consumption increases risk for obesity and diabetes; the strongest effects are seen in studies with the best methods (e.g. longitudinal and interventional vs. correlational studies); and interventional studies show that re-

Proposal

- Penny per ounce
- Any beverage with added sugar

Would it Work?

- Elasticity -.8 to 1.0
- \$14.5 billion in revenue per year

AMERICANS AGAINST FOOD TAXES

ABOUT US | JOIN US | FACTS | NEWS | ADS

Think Smart. Be Smart. Act Smart.

Now, more than ever, Americans must **think** smarter and **act** smarter. Especially when it comes to improving health care in America, an admirable goal we support. But we also know we **can't** tax our way to healthier lifestyles, and we need to make that clear to our members of Congress. After all, we do have an obligation to our children - and to ourselves - to promote healthy lifestyles through balanced diet and exercise. More

Make your voice heard!

STEP 1 JOIN US | STEP 2 TAKE ACTION | STEP 3 TELL A FRIEND

SMART CHOICES FOR KIDS
The food and beverage industry is doing its best to reduce childhood obesity.

EDUCATION NOT TAXATION
Discriminatory and punitive taxes on soda and juice drinks do not teach our children.

HEALTHY ECONOMY
American families and small businesses are struggling to survive in the current

Objections

- Unfair to pick on beverages
 - robust science
 - liquid calories
 - heavy marketing
- Nanny state
- Regressive tax
- Will not solve obesity problem

Can Anything Else Come Close?

- Immediate impact
- Significant impact
- No cost
- Generates revenue

www.palmcenter.org

MAY 2009

RUDD REPORT

SOFT DRINK TAXES

A Policy Brief

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