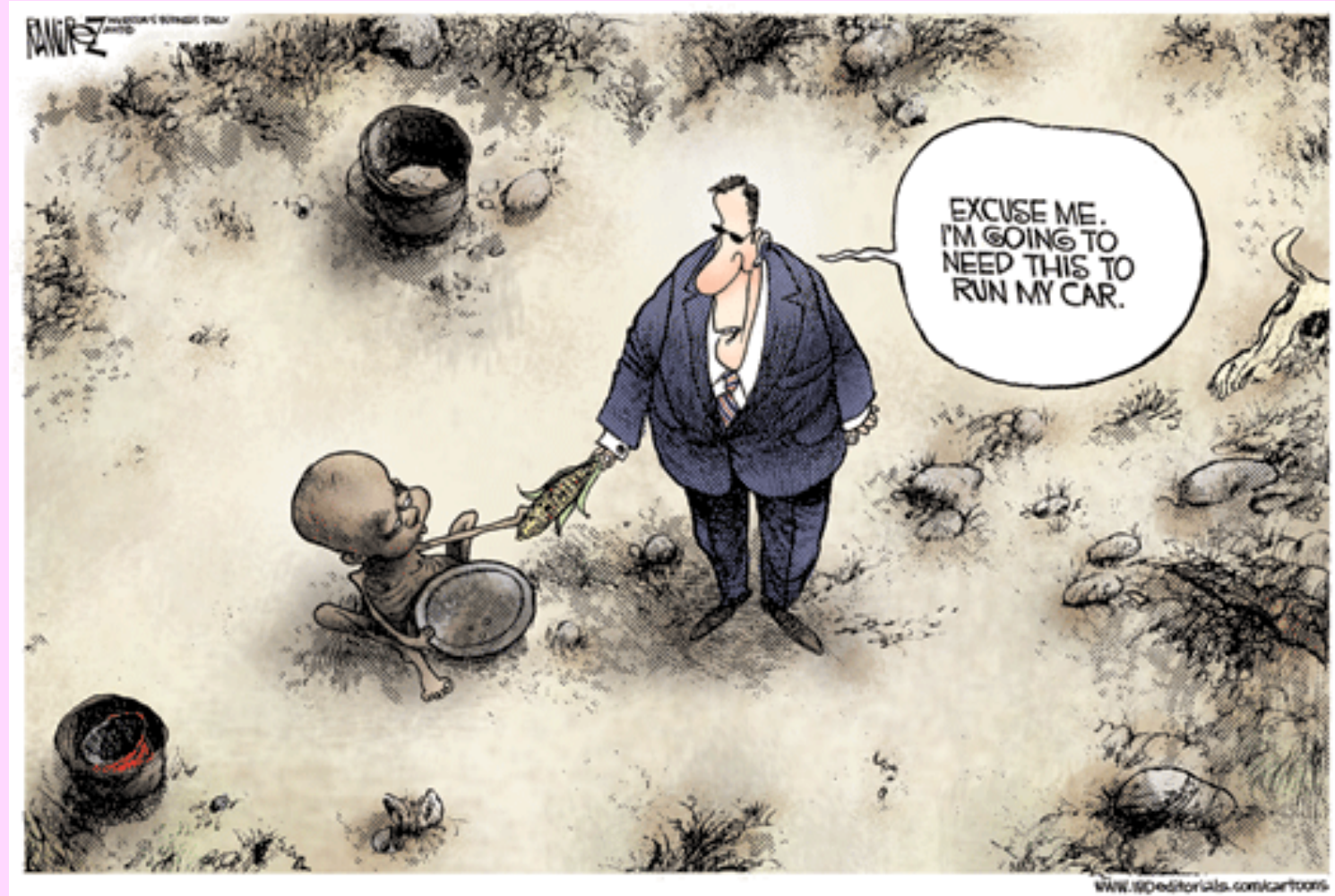


Global Food Crisis



Primary Objective of the World Food System?

To feed all of us ~

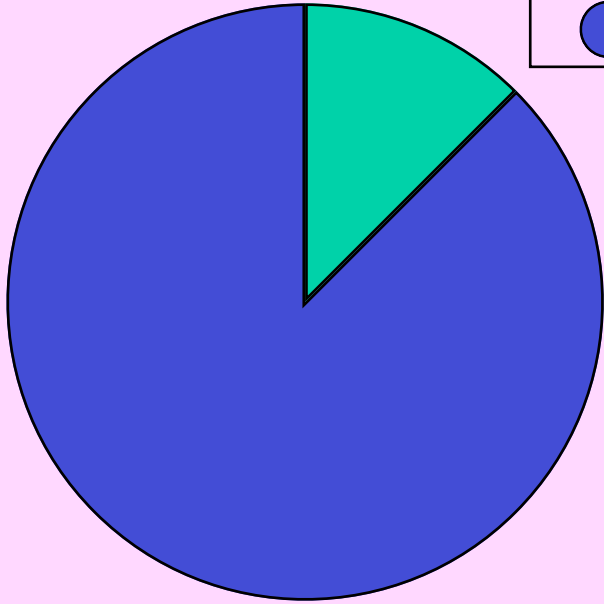
- As healthily as possible,
- With as little damage to nature as possible,
- In ways that enhance individual and communal life
- and ensure that future generations can feed themselves . . .

Emergence of food as a top-rank political issue is opportunity to form new alliances, new coalitions and new drivers of change!

Human-made systems, and we have the power to make choices about the kind of food system we want.

Shift from 'food security' to 'food democracy' or 'food justice'. International partners are calling for Food Sovereignty.

Food Situation



- World Population = 6.7 billion
- Hungry People = 854 million*
- World Bank estimates an additional 100 million may go hungry due to food crisis.

* 1 billion people are overfed (In U.S.: \$100 billion in diet related health costs)

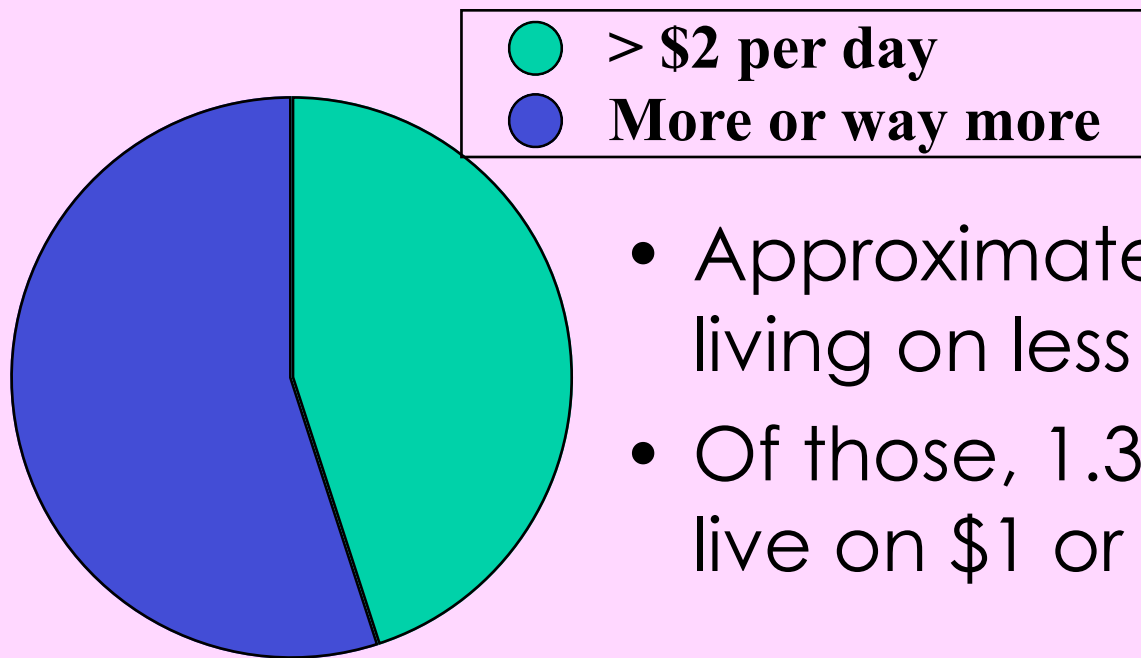
SOURCES:

World Population: For May 8, 2008 this calculator <http://www.ibiblio.org/lunarbin/worldpop> has us at 6.8 billion, and <http://www.census.gov/ipc/www/idb/worldpopinfo.html> has the population estimated at 6,666,356,135

854 million hungry source: World Food Programme http://www.wfp.org/aboutwfp/facts/hunger_facts.asp

Health Affairs journal suggests that Americans' obesity and smoking habits may be partly to blame, and may be costing Americans \$100 billion to \$150 billion per year. Cited in ABC News story Oct. 3, 2007 – “**Preventable Illness at Core of U.S. Health Costs**” <http://abcnews.go.com/print?id=3683683>

Population living on \$1 or \$2 per day



- Approximately three billion living on less than \$2 per day
- Of those, 1.3 billion people live on \$1 or less per day

This figure is based on purchasing power parity (PPP), which basically suggests that prices of goods in countries tend to equate under floating exchange rates and therefore people would be able to purchase the same quantity of goods in any country for a given sum of money. That is, the notion that a dollar should buy the same amount in all countries. Hence if a poor person in a poor country living on a dollar a day moved to the U.S. with no changes to their income, they would still be living on a dollar a day. In addition, see the following:

The [2007 Human Development Report](#) (HDR) from the United Nations Development Program notes that, “There are still around 1 billion people living at the margins of survival on less than US\$1 a day, with 2.6 billion—40 percent of the world’s population—living on less than US \$2 a day.” (See page 25. The report also notes that the alleviation is limited mostly to parts of Asia.)

For much of the 1990s and early 2000s, it was understood that roughly [half of humanity had been living on about \\$2 a day](#).

So, on initial read of the UN HDR report, this implies a reduction in recent years from half of humanity to 40 percent. However, [the reduction may not be as much as previously thought](#). The previous link is to a Bretton Woods Project article noting that, “Preliminary recalculations of global economic output excluding differences in domestic prices and currencies, released by the World Bank in mid-December [2007], may undermine the much-trumpeted claims that globalisation has reduced the number of people living in extreme poverty.”)

Also note that the use of \$1 a day (and \$2 a day) as poverty income measurements from the World Bank have been questioned and criticized as understating the level of poverty:

- The World Bank has been [criticized for almost arbitrarily coming up with a definition of a poverty line to mean one dollar per day](#).
- In addition, as also stated in the previous link, in the United States for example, the poverty threshold for a family of four has been estimated to be around eleven dollars per day. The one dollar a day definition then misses out much of humanity to understand the impacts. Even the two dollars per day that I have pointed out here, while affecting half of humanity, also misses out the numbers under three or four, or eleven dollars per day. These statistics are harder to find, and as I come across them, I will post them here!
- As an aside, Morgan Spurlock, the Oscar nominee for his documentary *Super Size Me* where he went 30 days on a diet of burgers only to see the effects, produced another documentary where [for 30 days he tried to live on the minimum wage of \\$5.15 per hour](#). At times he was earning \$50 to \$70 a day and yet the tremendous hardships he faced was incredible (including a ludicrous \$40 for a bandage in a hospital, and some \$500 for just being seen to).
- More fundamental than that though, for example, is a critique from Columbia University, called [How not to count the poor](#). The report describes 3 main errors as being:
 - 1.An ill-defined poverty line;
 - 2.A misleading and inaccurate measure of purchasing power equivalence; and
 - 3.Incorrect extrapolation of limited data giving the false impression of precision while masking the high probably error of the estimates.
- These errors are feared to lead to “a large **understatement** of the extent of global income poverty and to an incorrect inference that it has declined.” (Emphasis added). This allows the World Bank to insist that the world is indeed “on the right track” in terms of poverty reduction strategy, attributing this “success” to the design and implementation of “good” or “better policies”.

\$ spent on food

- The 3 billion people living on \$2 or less spend between 50 - 80% on food.
- Food prices have increased by 83% in just three years.
- Food riots in a dozen countries (also called “Rebellion of the Hungry”)

At the household level, the poor spend about 50 to 60 percent of their overall budget on food. For a five-person household living on US\$1 per person per day, a 50 percent increase in food prices removes up to US\$1.50 from their US\$5 budget, and growing energy costs also add to their adjustment burden. SOURCE: [World Food Programme briefing note at http://www.wfp.org/english/?](http://www.wfp.org/english/?ModuleID=137&Key=2778)

[ModuleID=137&Key=2778](#); Borger, ‘Feed the world?’ (note 10 -> 10. Julian Borger, ‘Feed the world? We are fighting a losing battle, UN admits’, *The Guardian*, 26 February 2008.

Source on Food prices increase: [Andrew Martin, ‘Fuel choices, food crises and finger-pointing’, *New York Times*, 15 April 2008.](#)

In 2007 the food price index calculated by the Food and Agriculture Organization of the United Nations (FAO) rose by nearly 40 percent, compared with 9 percent the year before, and in the first months of 2008 prices again increased drastically.

Drivers of rising prices

- Increased demand or reduced supply?
- Both, but short-term pressures are mostly on the demand side of the equation
- Historic 1.5% growth in demand for food
- Now 2% growth in demand; estimates project 2.6% growth demand in a decade
- 50% more food production by 2030 (9.2 billion population by 2050)

Source on demand growth: Jeffrey Currie, 'Food, Feed and Fuels: an outlook on the agriculture, livestock and biofuels markets', Goldman Sachs presentation, March 2007: see <http://tinyurl.com/yqldjv>.

Source on 50% more food is World Bank: Jenny Wiggins and Javier Blas, 'Bread and butter issues: rising prices may herald the first global food shortage since the 1970s', *Financial Times*, 23 October 2007.

And they say we'll need 85% growth in meat production to meet the demand.

Demand drivers, continued

- Rising income growth in emerging economies (notably China and India)
- Diets richer in meat and dairy, which are more grain and water intensive
- BIOFUELS or AGROFUELS: Ex. U.S. spending \$7 billion a year to encourage ethanol production
- 20% of corn crop now; 32% by 2016

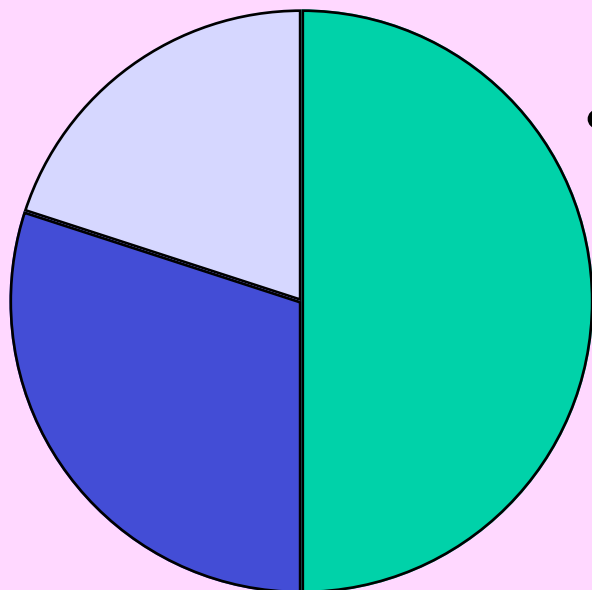
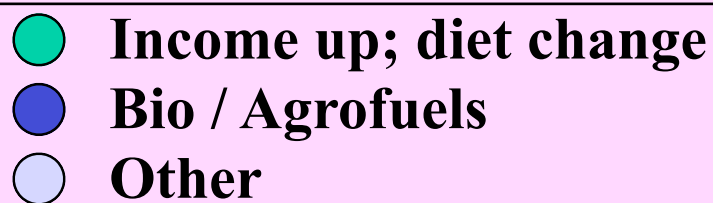
Source on \$7 billion: [Jenny Wiggins and Javier Blas, 'Bread and butter issues: rising prices may herald the first global food shortage since the 1970s', *Financial Times*, 23 October 2007.](#)

Source on % of corn crop: [Reuters, 'Ethanol, biodiesel eats into US corn stockpiles', 15 May 2006, at <http://tinyurl.com/27cuk8>.](#)

Demand drivers, continued

- Food is quite inelastic
- Reduced exports, while countries try to import more!
- Speculative investments (weak dollar and falling equity and bond, so safety in commodities)
- Lowest reserves of grains adds to price volatility

Demand side impact



- IFPRI Director estimates that 50% is from rising income; 30% from agrofuels; and 20% from other forces (low reserves, speculation, inelasticity, reduced exports)

Source on Director General of International Food Policy Research Institute, Joachim von Braun on 50% of demand pressure and biofuel pressures on price: Julian Borger, 'Feed the world? We are fighting a losing battle, UN admits', *The Guardian*, 26 February 2008.

Food Supply / “scarcity issues”

1)Energy and agricultural inputs costs rising

- Direct impact (cultivation, processing, refrigeration, shipping, distribution)
- Indirect impact (producing fertilizers and pesticides)
- Food – Fuel linkage

The cost of urea for fertilizing has almost tripled since 2003.

“Scarcity” supply issues, continued

2) Water scarcity

- 500 million live where water is chronically lacking
- Depletion of groundwater (US, Egypt, Pakistan, India and China)

“Scarcity” supply issues, continued

3) Land availability

- Increasing competition for land for food, feed, fiber, fuel, forest conservation, carbon sequestration on top of soil erosion and desertification
- FAO: at most 12% land available; but 16% of arable land is already degraded

Source on land:

Bidwells, *The bull run in soft commodities: commodity cycle or structural shift in food and farming?*, briefing note: <http://www.bidwells.co.uk/documents/SoftCommodities.pdf>.

“Scarcity” supply issues, continued

4) Climate Change!

- 1-3 degree Celsius rise = possible increase in food production
- More warming and production could decrease
- Impact of extreme weather likely to make biggest difference

“Scarcity” supply issues, continued

4) More on Climate Change

- Glacial melting: IPCC estimates many Himalayan glaciers could disappear by 2035
- Catastrophic results for Chinese and Indian agriculture in dry season
- People at risk of hunger – an additional 40-170 million

Source on glaciers: Lester Brown, 'Melting Mountain Glaciers Will Shrink Grain Harvests in China and India', Earth Policy Institute briefing note, 20 March 2008.

Solutions?

1) Increasing supply

- Short term: Moratorium on bio/agrofuel target policies
- Longer term: Developing countries: organic 80% greater productivity

Solutions?

2) Food sovereignty

- Rebuilding agriculture (within each country and as focus of foreign assistance)
- Protecting farmers from cheap imports
- Fair price for producers
- Supports for low-income consumers

Solutions?

3) Managing scarcity

- Integrated strategies to manage land, water, energy, food and climate change mitigation and

Solutions?

3) “Right to Food” - Rethink trade rules

- Redesign trade agreements to protect food security and food sovereignty
- Import substitution (R.P. biggest rice importer now; goal to be self-sufficient in 3 years)