UNCTAD

http://unctad.org/fr/Pages/DITC/ClimateChange/UNCTAD-Biofuels-Initiative.aspx

"The production of biofuels - clean-burning, carbon-neutral fuels derived from sustainable agricultural practices - provides an opportunity for developing countries not only to use their own natural resources but also to attract the necessary foreign and domestic investment to achieve sustainable development goals. Widespread use of biofuels would provide greater energy security, improved quality of life, economic development, job creation and poverty alleviation, especially in rural areas…The *BioFuels Initiative* works closely with the private sector to develop the business and sustainable development case for increased production, domestic use, and trade in biofuels."

Soil and Oil - The Titanic Competition for Land and Biomass and Some of its Global Implications

Or, can we learn to stop worrying and love biofuels?

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On behalf of *Biofuelwatch*

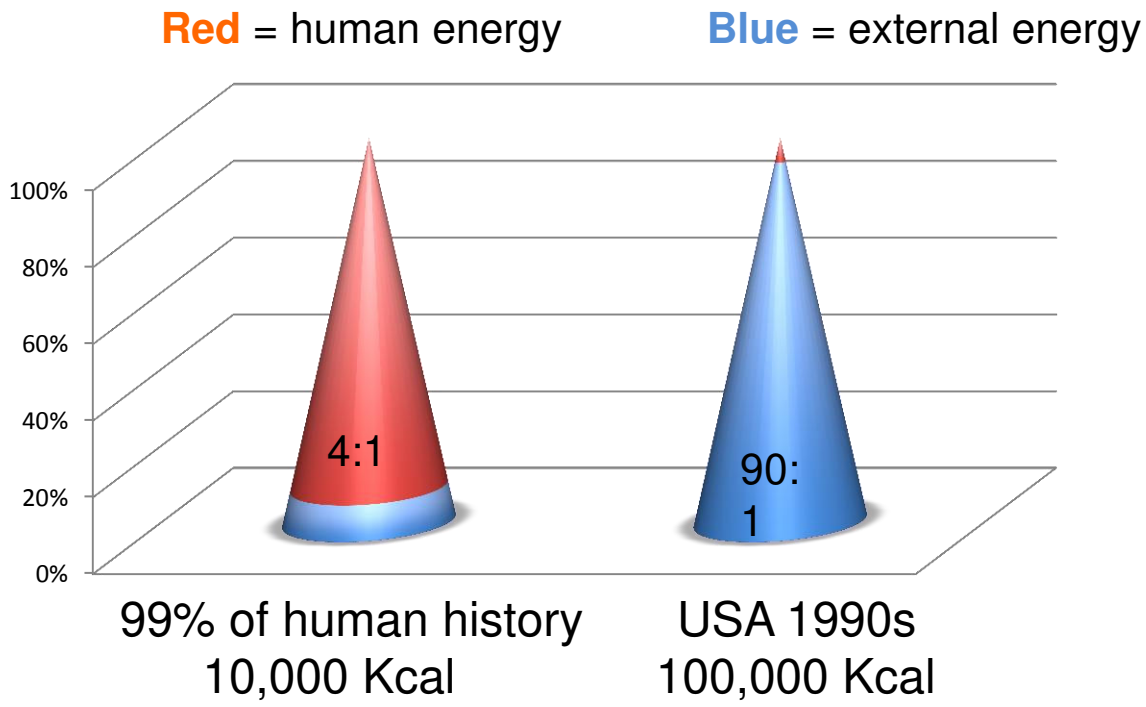
Part I

- How much wood would a woodchuck sell if a woodchuck could sell wood?

- How much wood would a woodchuck sell *if the price of wood went up with the price of oil?*

A. The Fuel Crisis is Systemic

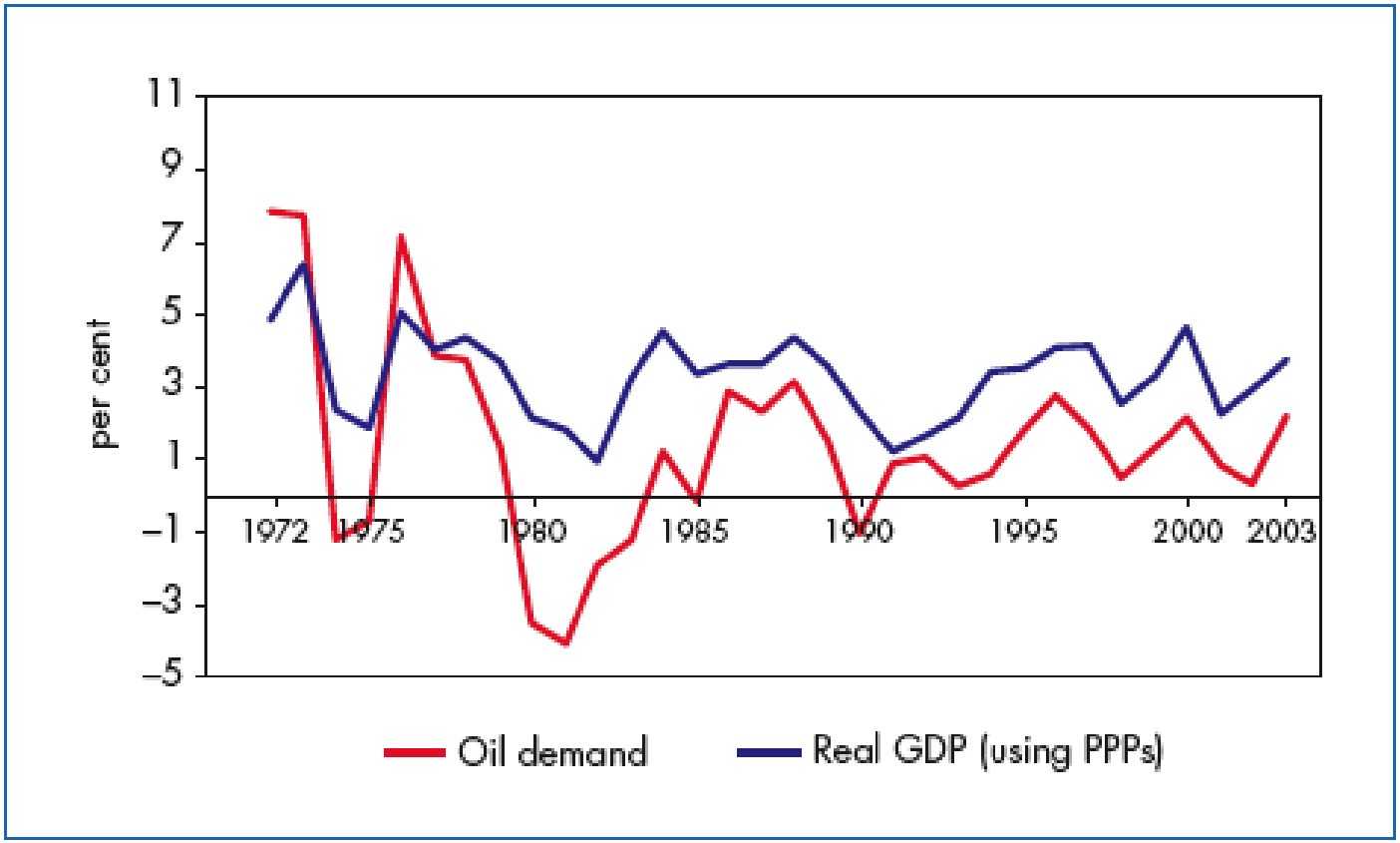
1. *Modern productivity is based on fossil fuels*



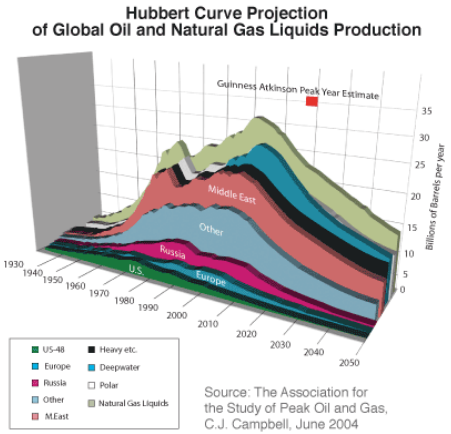
Energy used to produce one day's worth of food

2. There is a strict relation between economic growth and oil demand (IEA 2004)

Figure 3.1: **Oil Demand and GDP Growth**



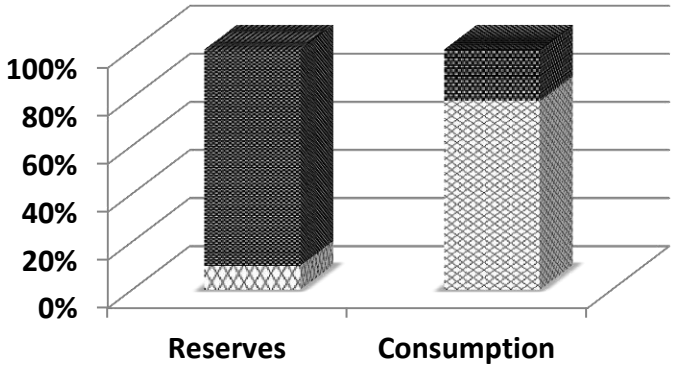
3. Fuel crisis compels biofuels expansion



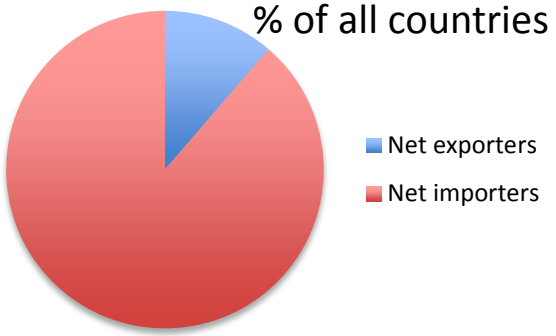
Peak oil 2007-2020

+ economic and population growth

+ global warming



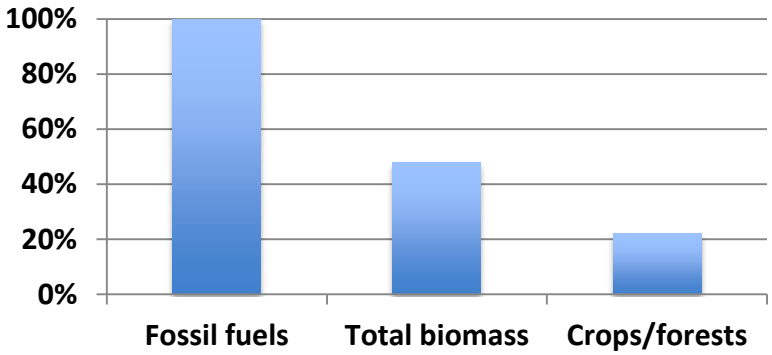
- Oil price increases lead to *stagflation*
- *Each* $10 increase in the price of a barrel of oil has reduced importers' GDP by 0.4% (wealthiest) to 2% (poorest)
- State budgets and company profits are depressed just as massive investments in technology are required



- Prices and fuel shortages mean that biofuels *will* be mobilized *by importing states and all kinds of economic agents, from farmers to multinationals*

Biofuels expansion = ipso facto land use change

USA :
Annual consumption equivalents



US air travel consumes 80 billion litres of fuel per year. To provide this with biofuels requires:

4.2 million ha of *microalgae* for biofuel production (twice the area of Wales) *or*

42 million ha of Jatophra (or the entire State of California) *or*

420 million ha of soya (or half the area of Brazil)

Sources: Pimentel & Pimentel 2008: 19; NASA 2012

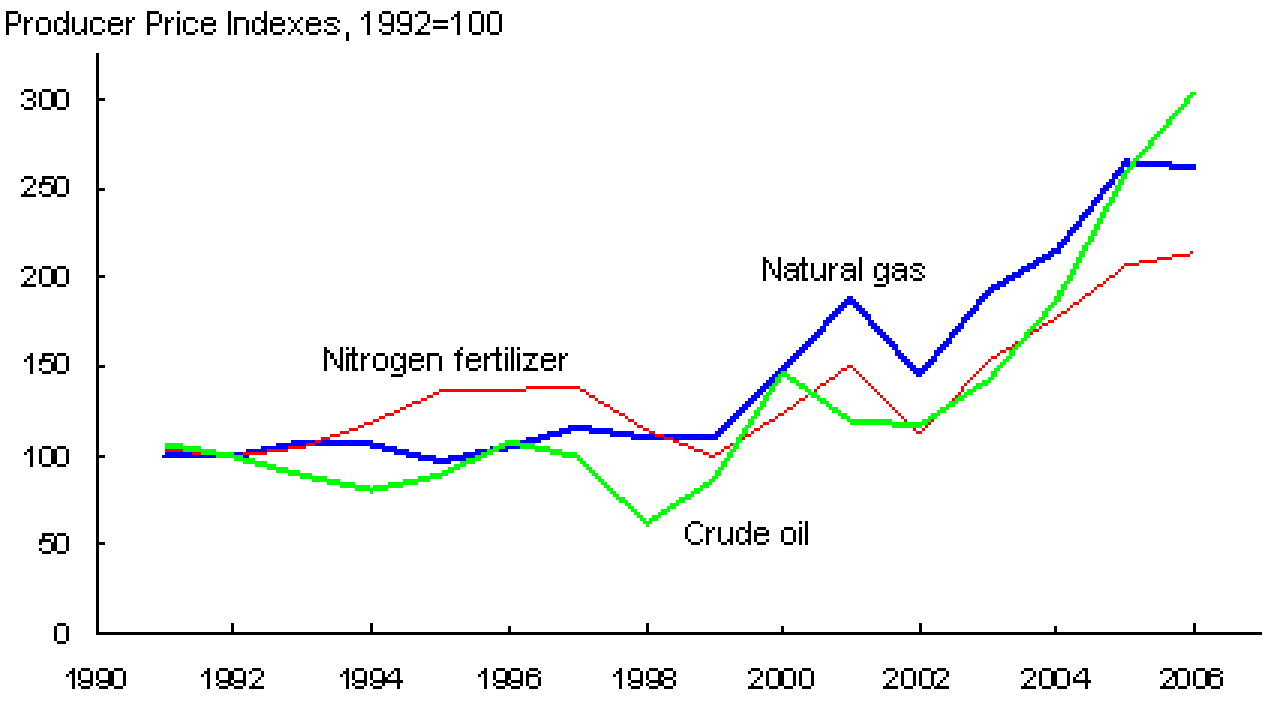
Part II

- How much land would a woodchuck *want* if the price of wood went up with the price of oil?
- How much *rent* would *landowners* want if woodchuck wanted this much land and the price of wood went up with the price of oil?
- How much rent would cornchucks or ricechucks or wheatchucks or cattlechucks have to pay for land if the woodchuck wanted the land for wood?

A. Biofuels are driving the integration of the agriculture and energy sectors

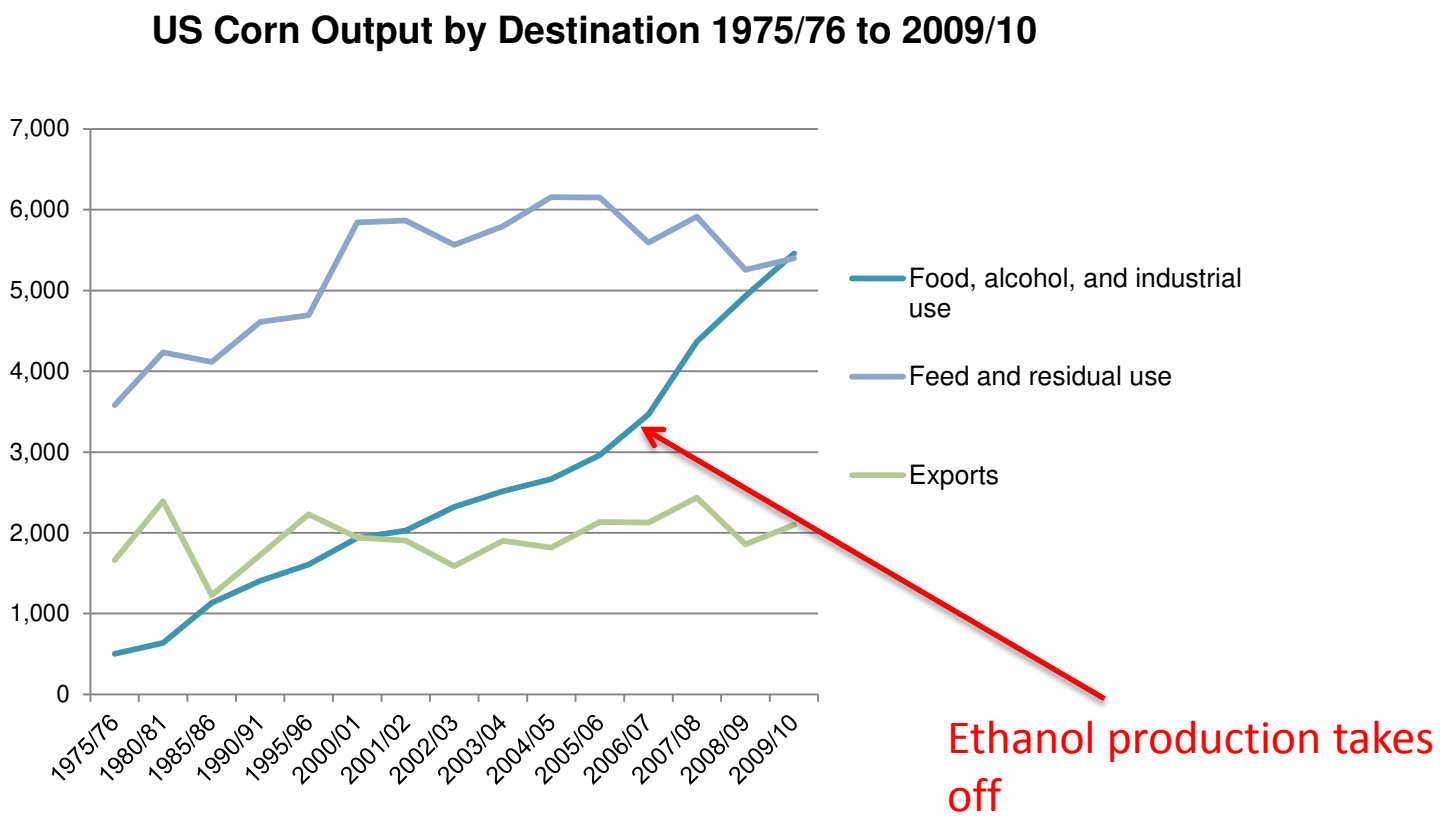
Pre-2000

U.S. crude oil, natural gas, and nitrogen-based fertilizer prices move together

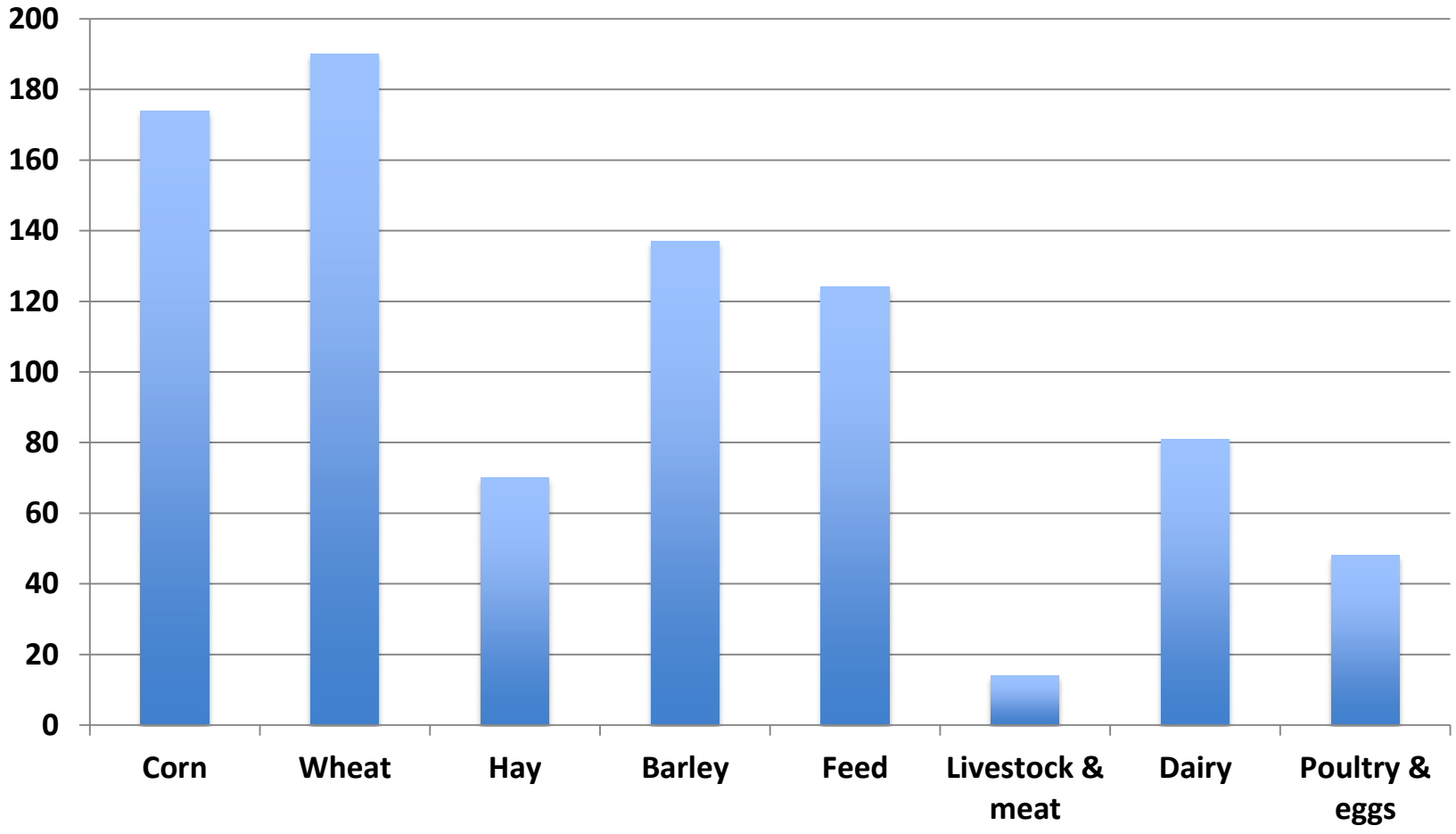


Sources: *USDA Agricultural Projections to 2017*, February 2008.
USDA, Economic Research Service.
Producer Price Indexes, U.S. Department of Labor, Bureau of Labor Statistics.

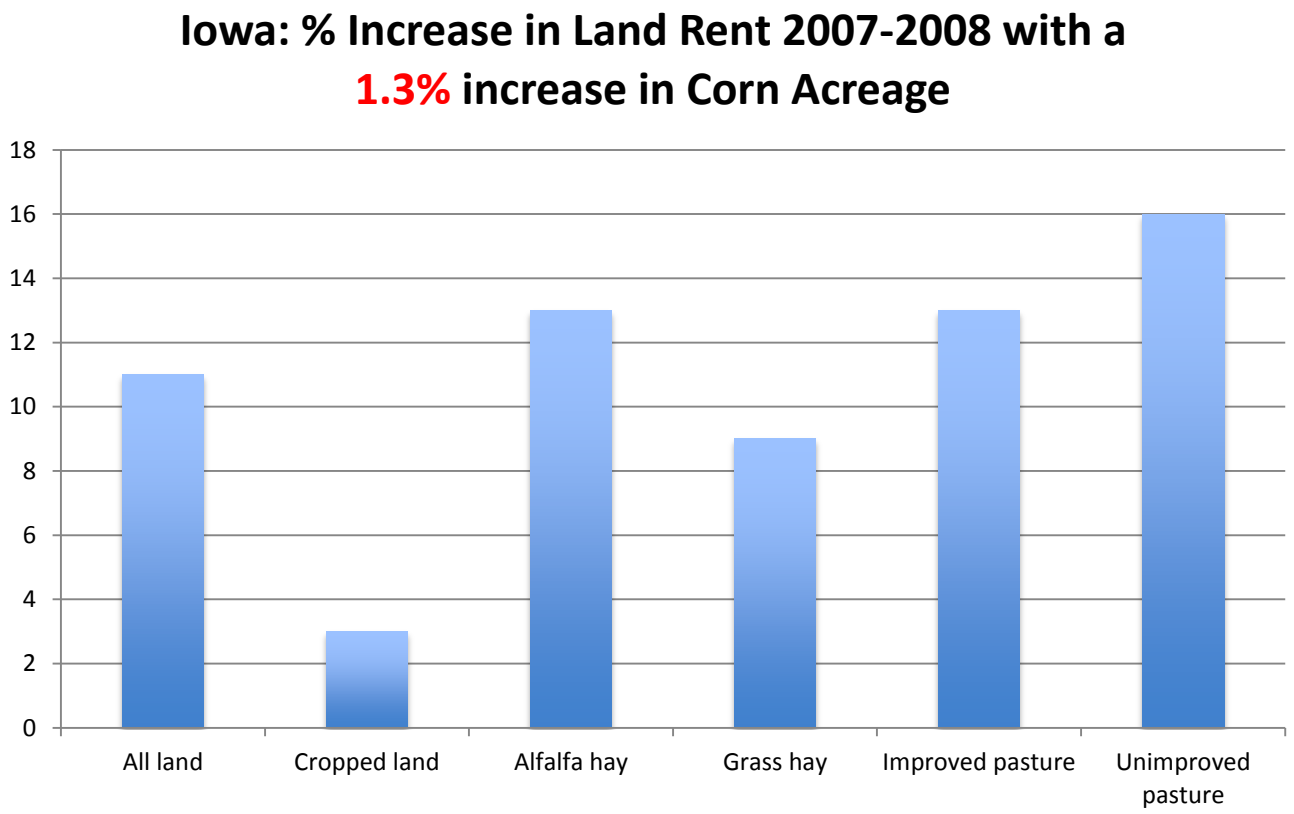
Since 2000, with Oil Price Increases + Biofuel Subsidies



% increase in agricultural prices 2005-2008 (USA)



1. Why? Land Prices as Biofuel Production Takes Off



2. Explanations for Higher Land Rents and Hence Higher Food Prices (Du et. al. 2007)

+$$ = + = -

+$$ = + $$ = + demand for

If ➔➔ then $$ must rise to pay the price of

"…the rent of cornfields becomes a determining element in the price of cattle, and *for this reason*...the price of cattle is . . artificially raised by the rent" (Marx, 1867, Capital, Vol III).

3. Land rent rises even more and even more land is converted because…

- Coffee, for example, can't be produced on just any land, nor can grains.

- *But* "The cattle bred on the most uncultivated Moors are…sold at the same price as those which are reared upon the most improved land. The proprietors of the moors profit by it, and raise the rent of their land in proportion to the price of … cattle" (Adam Smith).

- When cattle production predominates, *the worst soil produces rent, "*unlike what happens when grain production predominates" (Marx).

- *Like cattle, biofuels* (combustible biomass) can be produced on any quality soil, in most environmental conditions, so it will raise the price of almost *all* land.

Part III

- How much land will woodchucks convert to wood production as the price of wood goes up with the price of oil?

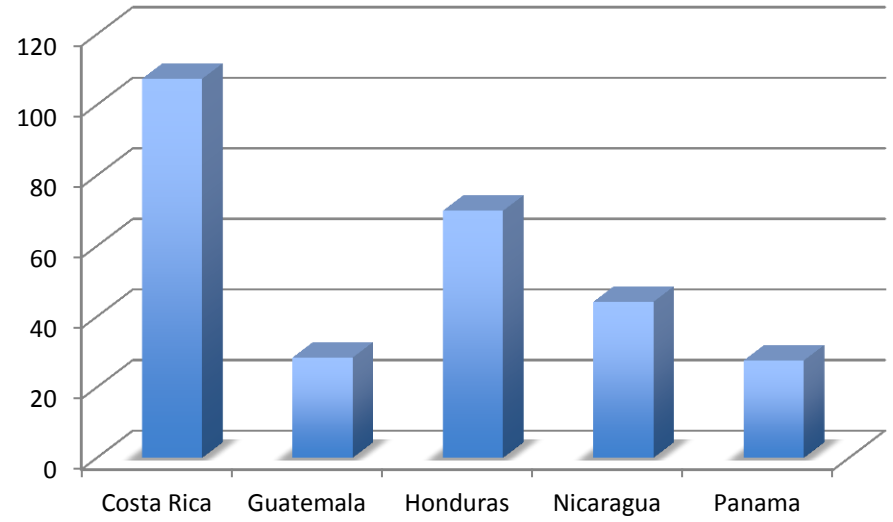
- What will happen to cornchucks or ricechucks or wheatchucks or cattlechucks as woodchucks take over?

- Who will regulate this, and what will happen to the rest of us?

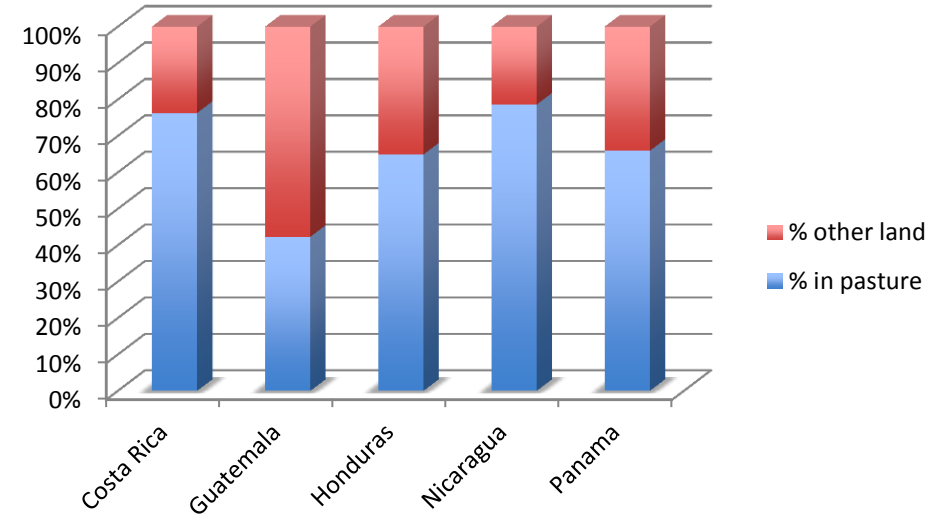
Let's look at meatchucks…

Central American Pasture Expansion

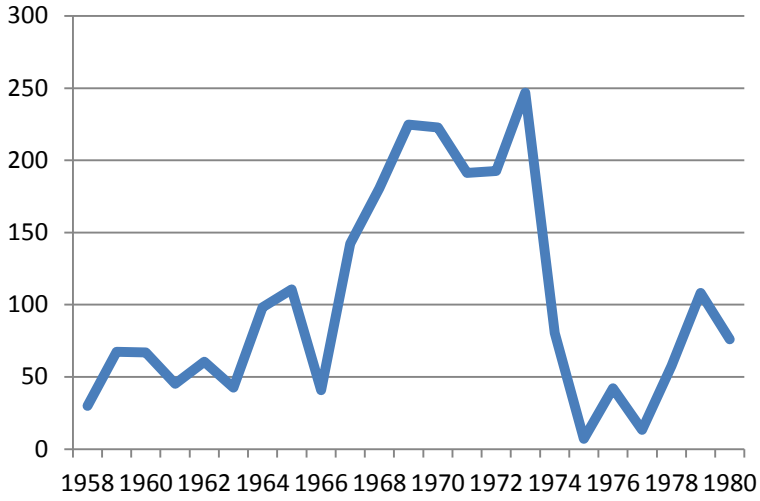
% increase in pasture 1960-80



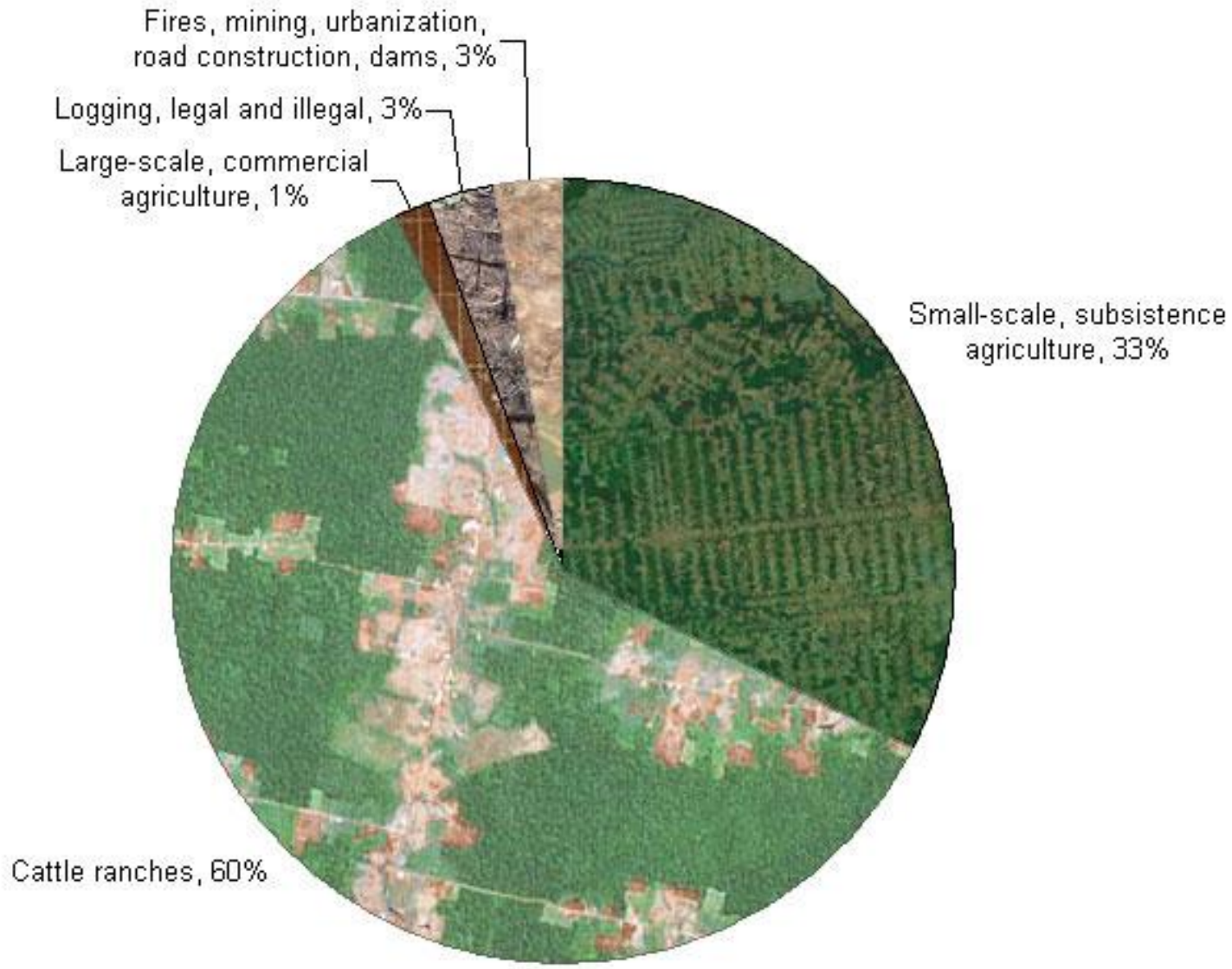
% area in pasture in 1980



Beef export prices 1958-80



Causes of Deforestation in the Amazon, 2000-2005



For the rural Central American majority: Expulsion, land concentration, conflict, emigration

- Peasants without land title were pushed off the land
- Deforested land was monopolised and land concentration increased
- Peasant grain production was pushed to hillsides + tropical forests, where soil degradation is severe
- Conflict and civil war: Nicaragua, El Salvador, Honduras
- Rural-urban migration and migration to the USA took off
- Malnutrition increased as beef production skyrocketed – grain prices rose, grain imports commenced, beef prices rose higher than export prices, protein malnutrition worsened

2000s

1970s

Enfin: so can you learn…etc.?

Or…Mr. Woodchuck, biofuels, and agriculture-energy integration

A. Through biofuels, *land prices become fixed to the price of oi*l.

B. Biofuels can be produced on land of no agricultural value; this *brings very marginal land into production* and also increases the price of more productive land.

C. Land prices are part of the cost of all agricultural commodities, so *all agricultural prices must rise either at the same rate or faster than (bio)fuel prices*.

D. Biofuels increase *transfers of wealth from other productive sectors and populations* to the agriculture-energy sector through higher prices for agricultural goods and fuel.

E. Enormously powerful incentives exist to convert land in other crops, in pastures, and in forests; to concentrate land and *expel existing land users who are unable to pay such rents*; to organise to ensure that the profits that are generated are concentrated in few hands.

Bear in mind that…

- *No one* governs the world's energy markets and *no one* has the capacity, much less the will, to control biofuel markets

- Thus, stimulus for 'sustainable' biofuels provides political legitimation, consists of green wash, and does far more harm than good

And yet also remember that…

- Massive struggle and conflict originating in resultant food, energy, and economic crises will force the hand of states, corporations, and you…

A paper is available:

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http://kent.academia.edu/PatriciaHoward

COMMENTS WELCOME!

See also

http://wiki.answers.com/Q/How_much_wood_would_a_woodchuck_chuck_if_a_woodchuck_could_chuck_wood