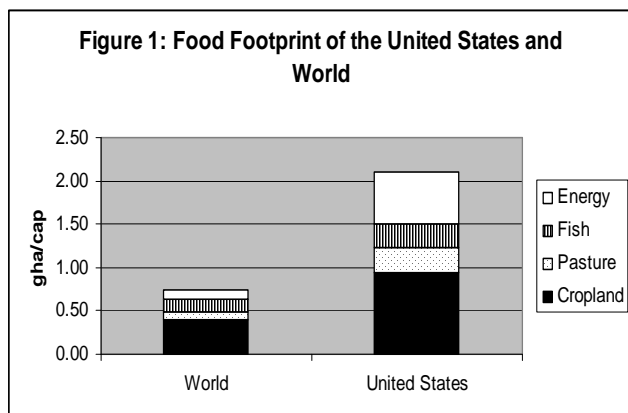


MODERN AGRICULTURE FOOTPRINTS



CROPLAND

The amount of cropland grew by less than 10% over the last 40 years. However, footprints increased due to

- Soil erosion
- Water shortages and runoff
- Nutrient loading

PASTURE

- 1/3 of the world's harvested cropland grows feed and forage for animals.

FISHERIES

- Most operate near or over capacity and have experienced declines or collapses in populations

ENERGY

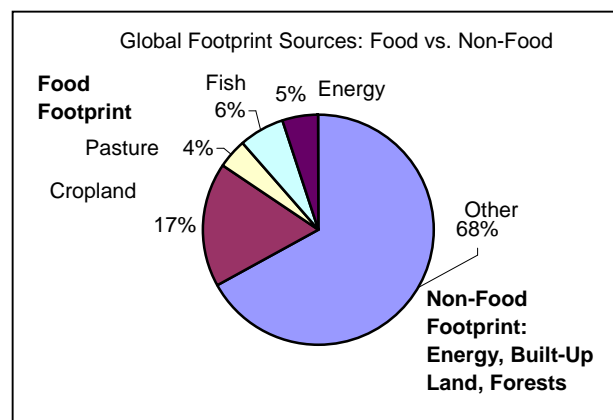
The global food system relies on a high usage of fossil fuel consumption for fertilizers, fuels, and pesticides.

- Eating fresh, locally-grown foods reduces the energy needed for transportation.
- An average food item in the US travels 1500 miles.
- 90% of vegetables are grown in the San Joaquin Valley in CA.
- Post-production (processing, packaging, transportation, storage, and retail) accounts for 80-90% of the food system's fuel usage, storage, distribution, and processing.

GLOBAL TRADE*

- Crops indigenous to a particular region are now eaten all over the world.
- Many countries that were former colonies are economically dependent on exports of food. (Ex. Agricultural products account for over 80% of exports from many Central American countries)
- In many developing countries, land that used to be used for local food consumption is turned over to "cash crops" for export. This creates a pattern in which food production and exports increase, while domestic consumption decreases. For example, in Kenya, between 1969-1999,
 - production of vegetables more than doubled, and
 - exports of vegetables increased 6-fold, but
 - per capita domestic consumption of vegetables decreased by 33%

* Sources: World Trade Organization and UN Food and Agriculture Organization, as cited in *The Penguin Atlas of Food*. E. Millstone and Tim Lang. New York: Penguin Books. 2003.



	GROWING AREA	ENERGY	NUTRIENT POLLUTION	BIODIVERSITY
CONVENTIONAL	Higher yield on average	Fuels, Fertilizers, Pesticides, packaging, and processing use energy	Nitrogen fertilizers damage aquatic ecosystems, change atmospheric composition	Eliminate wildlife habitats, GMOs threaten native crop varieties
SUSTAINABLE	Slightly lower yield but higher performance in stressful conditions	Integrated pest management reduces energy use; small scale farms require less operational energy; less energy spent post-production (no packaging and processing)	Increased nutrient use efficiency	Preserve biodiversity, Preserve water quality

