

- Types of crops we consume has decreased, with ~60% of human plant calories derived from only three crops—rice, maize, and wheat
- More than ½ food production in US from 10 states in Midwest + California, production of foods (particularly meats) concentrated in monopoly

## Consumption:

- Increasing Role of Meat & Processed Foods:
  - Global meat consumption increased
  - Processed foods are produced to optimize ease of preparation, consumption, and storage – remove fiber but add sweeteners, salt, fats, colors, artificial flavors, and preservatives
- Overnourishment & Obesity:
  - Overnourishment: energy use does not match food energy consumed, leads to obesity: overweight due to excessive fat accumulation
  - Linked to diabetes, heart disease, and respiratory problems – primary killers in the developed world
- Shifting Food Culture:
  - Sweet and fatty foods are cheaper + readily available for consumption
  - Supermarkets, with lower-priced processed foods, increased in numbers while public markets with a direct producer-consumer connection declined

## Food For The Future – Challenge:

- Food needs to be farmed, harvested or caught, transported, processed, packaged, distributed and cooked, and the residuals disposed of
- Global population will continue to grow
- Increased wealth comes with higher consumption and greater demand for processed food, meat, dairy and fish
- Production needs to double to keep pace with projected demands from population growth, dietary changes, and increasing bioenergy use
- Solution to past food shortages = use more land in agriculture + exploit fish stock
- Croplands cover 12% of Earth's land, pastures cover 26% of Earth's land
- World's croplands + pastures expanding in tropics + limited change in temperates
- 75% of those suffering from hunger live and work in farming communities
- Food systems are responsible for **a third of global anthropogenic GHGs**
- Agriculture must also address tremendous environmental concerns
- Threefold challenge:
  - Match demand for food from larger + affluent populations to its supply
  - Do so in ways that are environmentally and socially sustainable
  - Ensure the world's poorest people are no longer hungry

## Food For The Future – Solutions:

- National Geographic: Feeding 9 Billion
  - Freeze Agriculture's Footprint, Grow More on Farms We've Got, Use Resources More Efficiently, Shift Diets, Reduce Waste
- Sustainable Agriculture Is:
  - Farming in sustainable ways meeting society's food + textile needs, w/o compromising ability for current or future generations to meet needs