

WEEK 12 ETHICS OF SUSTAINABILITY

HARDIN'S QUESTION

- Should we give aid to food insecure countries/populations?

KINDS OF AID FOR DEVELOPING COUNTRIES

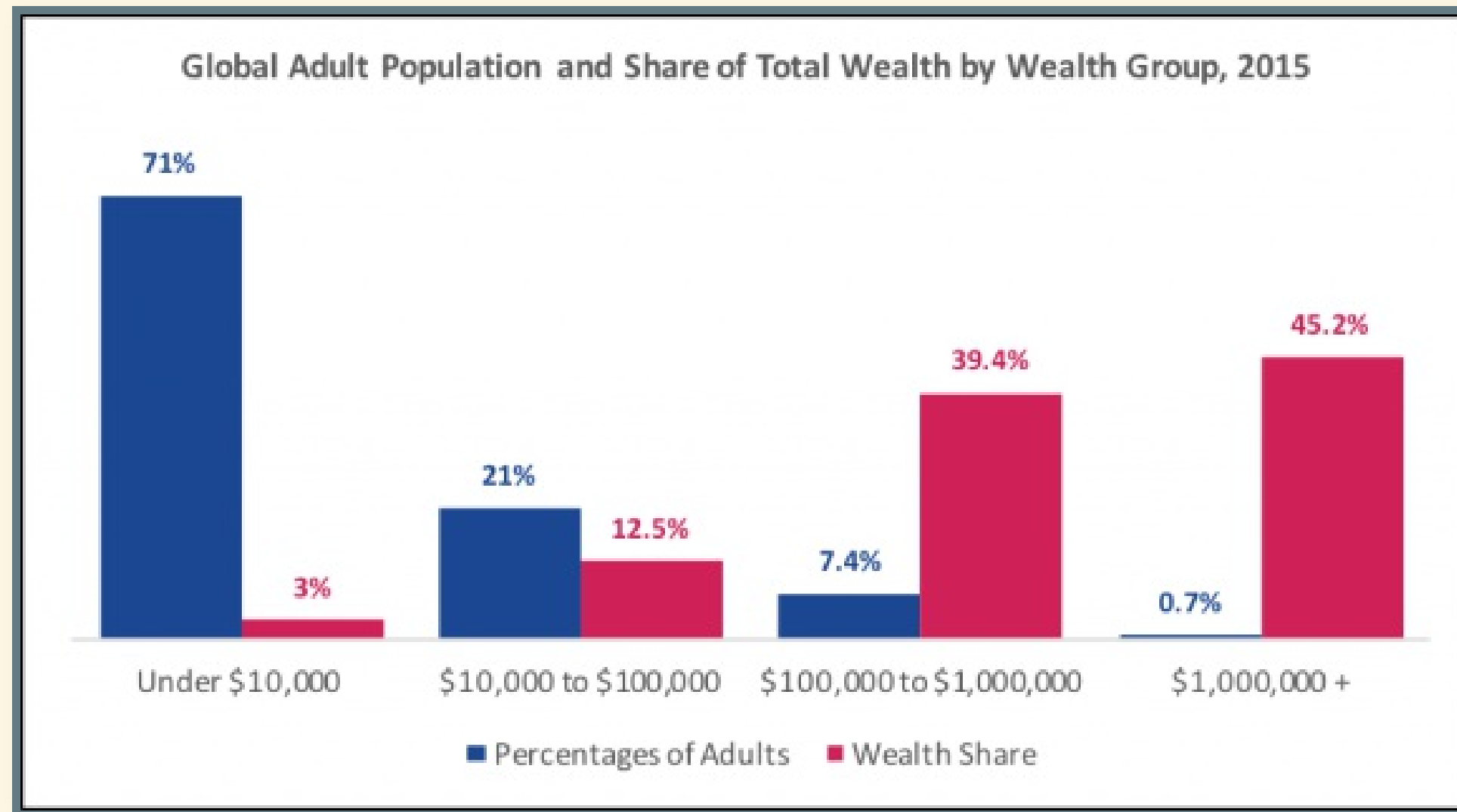
US FOREIGN FOOD AID

- Eisenhower administration creates an international food distribution program known as Public Law 480, or “Food for Peace”, on July 10, 1954 to manage commodity surpluses and promote international trade & development
- Expanded by Kennedy in 1966 explicitly for humanitarian purposes

THE GREEN REVOLUTION

- Set of initiatives championed by Norman Borlaug intended to disseminate modern agricultural methods and materials (e.g. irrigation, chemical fertilizer, pesticides) to less industrially developed countries

GLOBAL WEALTH INEQUALITY



- In 2017 1% of the world's adult population, located primarily in North America and Western Europe, holds 50.1% of the world's wealth

LIFEBOAT ETHICS

Metaphorically, each rich nation amounts to a lifeboat full of comparatively rich people. The poor of the world are in other, much more crowded lifeboats. Continuously, so to speak, the poor fall out of their lifeboats and swim for a while in the water outside, hoping to be admitted to a rich lifeboat, or in some other way to benefit from the “goodies” on board. What should the passengers on a rich lifeboat do? This is the central problem of “the ethics of a lifeboat.” (Hardin, 86)

THE PROBLEM WITH SHARING

The fundamental error of the sharing ethic is that it leads to the tragedy of the commons. Under a system of private property the men (or group of men) who own property recognize their responsibility to care for it, for if they don't they will eventually suffer. ... if a [resource] is run as a commons open to all, the right of each to use it is not matched by an operational responsibility to take care of it. (Hardin, Lifeboat Ethics p. 88)

FAMINE RELIEF & THE “COMMONS”

Tragedy of the Commons:

the economic theory concerning behavior within a shared-resource system (i.e. “the commons”) where individual users acting independently and according to their own self-interest behave contrary to the common good of all users by depleting or spoiling that resource through their collective action

- Famine aid creates a “commons” that encourages populations to “behave contrary to the common good” by increasing in population beyond a sustainable level

THE RATCHET EFFECT

The input of food from a food bank acts as the pawl of a ratchet, preventing the population from retracing its steps to a lower level. Reproduction pushes the population upward, inputs from the world bank prevent its moving downward. Population size escalates, as does the absolute magnitude of “accidents” and “emergencies.” The process is brought to an end only by the total collapse of the whole system, producing a catastrophe of scarcely imaginable proportions. (Hardin, 90)

SUMMARY OF HARDIN'S ARGUMENT

- The World Food Bank (and organizations like it) creates a “commons” encouraging bad behavior that will generate a “ratchet effect” on population growth, creating further cyclical problems
- We should treat individual nations as “lifeboats” and refrain from helping them because doing so only causes further problems

OBJECTIONS TO HARDIN

1. The lifeboat metaphor is a misleading one
2. Not every commons results in a “tragedy”
3. Food security need not always result in population explosions

ARE WE REALLY IN A LIFEBOAT?

- Lifeboats don't necessarily interact much, but countries (and their citizens) do all the time and the interaction is not one-sided
- The isolationism encouraged by the lifeboat metaphor encourages global political and economic instability

THE COMMONS

Prosperity in the system of the commons cannot survive errors. If everyone would only restrain himself, all would be well; but it takes only one less than everyone to ruin a system of voluntary restraint. In a crowded world of less than perfect human beings-and we will never know any other-mutual ruin is inevitable in the commons. This is the core of the tragedy of the commons. (Hardin, 88)

- Hardin's view assumes that activity in a commons cannot be regulated, but gives no argument as to why we should agree with this

FOOD & POPULATION

- Hardin assumes that an increase in food security entails an increase in population
- But population increases depends on a variety of factors:

[Population increase depends on] parental confidence about the future, an improved status of women, and literacy. [Population increases] require low infant mortality rates, widely available rudimentary health care, increased income and employment, and an adequate diet above subsistence levels (Murdoch & Oates, 564)

SUSTAINABILITY & FOOD SECURITY

1. Sustainability with respect to a population
2. Sustainability with respect to the environment

WHY IS SUSTAINABILITY IMPORTANT?

- Food security is important!
- Unsustainable environmental practices lead to famine/food insecurity & possible ecological catastrophe

CLIMATE CHANGE

Climate Change:

A long-term change in global or regional weather patterns, typically involving a change in average atmospheric temperature

WHAT CAUSES CLIMATE CHANGE?

- Non-human factors
 - Variation in solar radiation, ocean circulation, or the earth's orbit, volcanic eruption, etc.
- Human activity (*anthropogenic* climate change)
 - Burning fossil fuels
 - Agriculture
 - Deforestation

CLIMATE CHANGE & AGRICULTURE

- The global food system accounts for roughly 30 percent of global emissions
 - Includes transportation, deforestation, and agricultural management
- Land clearance and ag management account for more emissions than all of the world's cars, planes, and trains **combined**
- Emissions from agriculture and deforestation are **three times** greater than emissions from the global building sector, and equal to **all** industrial emissions

WHAT CAN WE DO ABOUT CLIMATE CHANGE?

- Reduce greenhouse gas emissions (CO₂, N₂O, CH₄)
- Change our food production & consumption practices

SUSTAINABLE PRODUCTION: FARMING

Polyculture:

agricultural practice of simultaneously cultivating several crops or animal species

Biomimicry:

the imitation of systems and elements of nature

MIMICKING NATURE ON THE FARM

- Every organism on the farm contributes to the overall health and productivity of the farm
- Each part of the farm models a relationship between between animals in nature.
 - Cattle-chicken relationship
 - Cattle completely graze down grassy paddock area
 - Brings chickens into empty paddock to “clean up”

CONTRAST WITH INDUSTRIAL FARMING

NAYLOR FARM	POLYFACE FARM
Industrial	Pastoral
Annual species	Perennial species
Monoculture	Polyculture
Fossil energy	Solar energy
Global market	Local market
Specialized	Diversified
Mechanical	Biological
Imported fertility	Local fertility
Myriad inputs	Chicken feed

SUSTAINABLE CONSUMPTION: EATING LESS MEAT

- If you trade a meal of steak for beans once a week for a year, you will keep the equivalent of 331 kilograms of carbon dioxide (CO₂) out of the atmosphere
 - Equivalent to not burning 38 gallons of gas, or of trading in 12 incandescent bulbs for 1 LED



REFERENCES

- [Washington Post](#) and [The Guardian](#) on carbon footprint of meat
- [The Inequality of Climate Change](#)
- [UN on Climate Change](#)
- [IPCC special report on the impacts of global warming, Oct 2018](#)
- [Food Matters: How Does Agriculture Change Our Climate?](#) (U of Minnesota)

