

# Environmental aspects of energy – introductory remarks

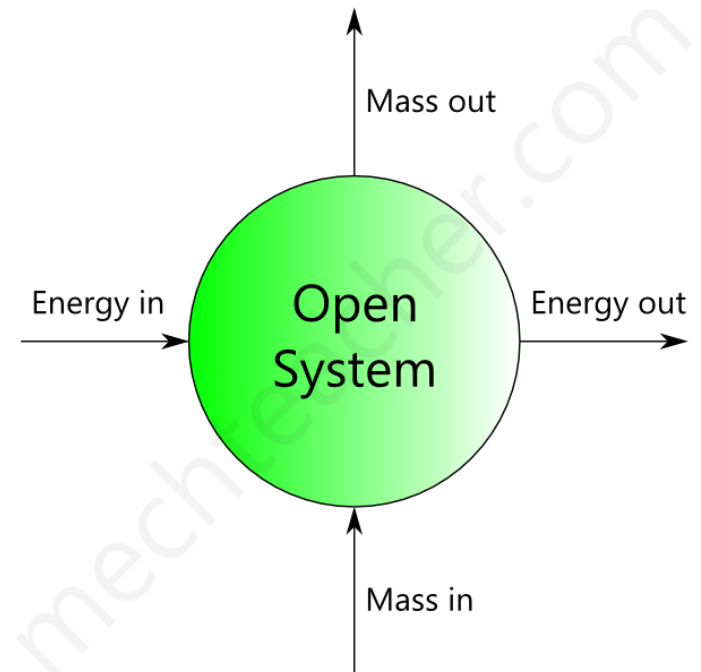
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# State of the global environment

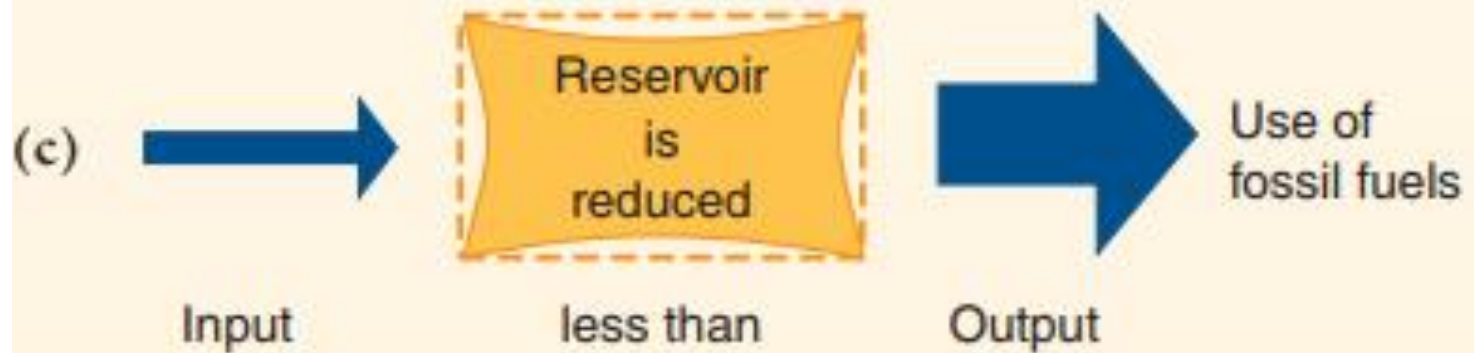
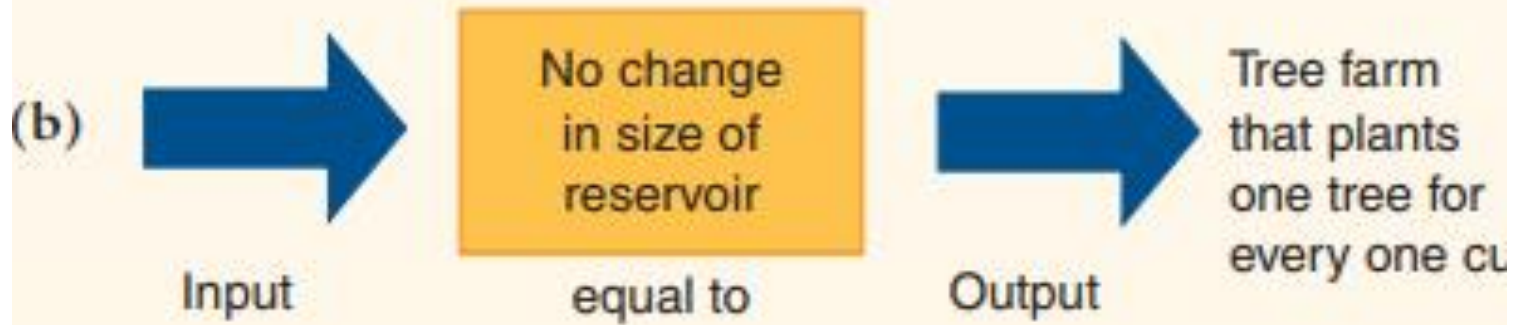
- Five concerning trends:
  - 1) Population growth
  - 2) Economic development
  - 3) Decline of life support ecosystems
  - 4) Global atmospheric changes
  - 5) Loss of biodiversity (variety and variability of life)
- Fossil fuels facilitate these trends.

# System theory

- Set of components that function together to act as a whole. (Separated by boundaries).
- Open vs. closed systems.
- Earth as a system.





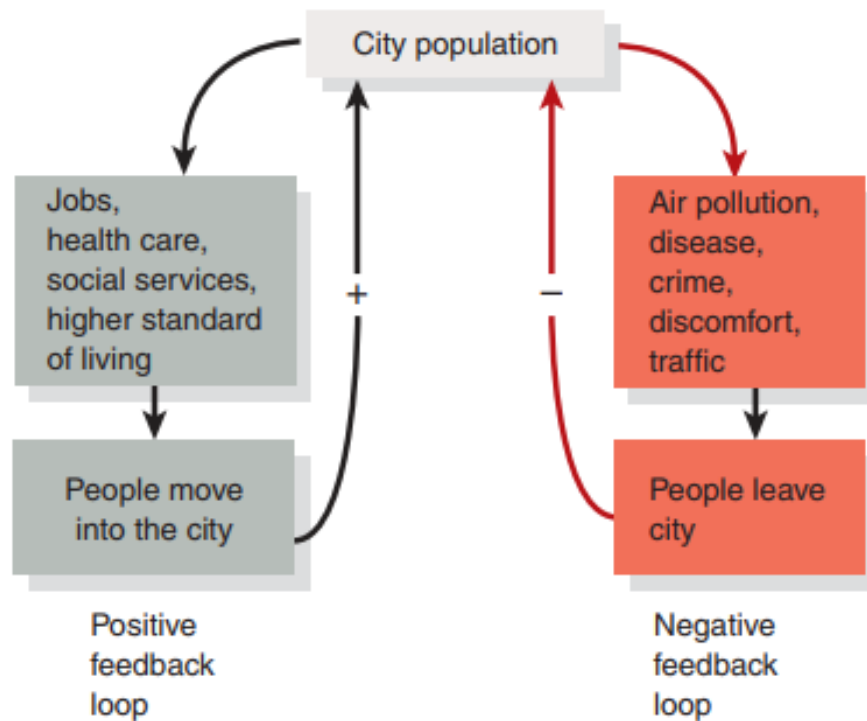


# Human population in large cities (feedbacks)

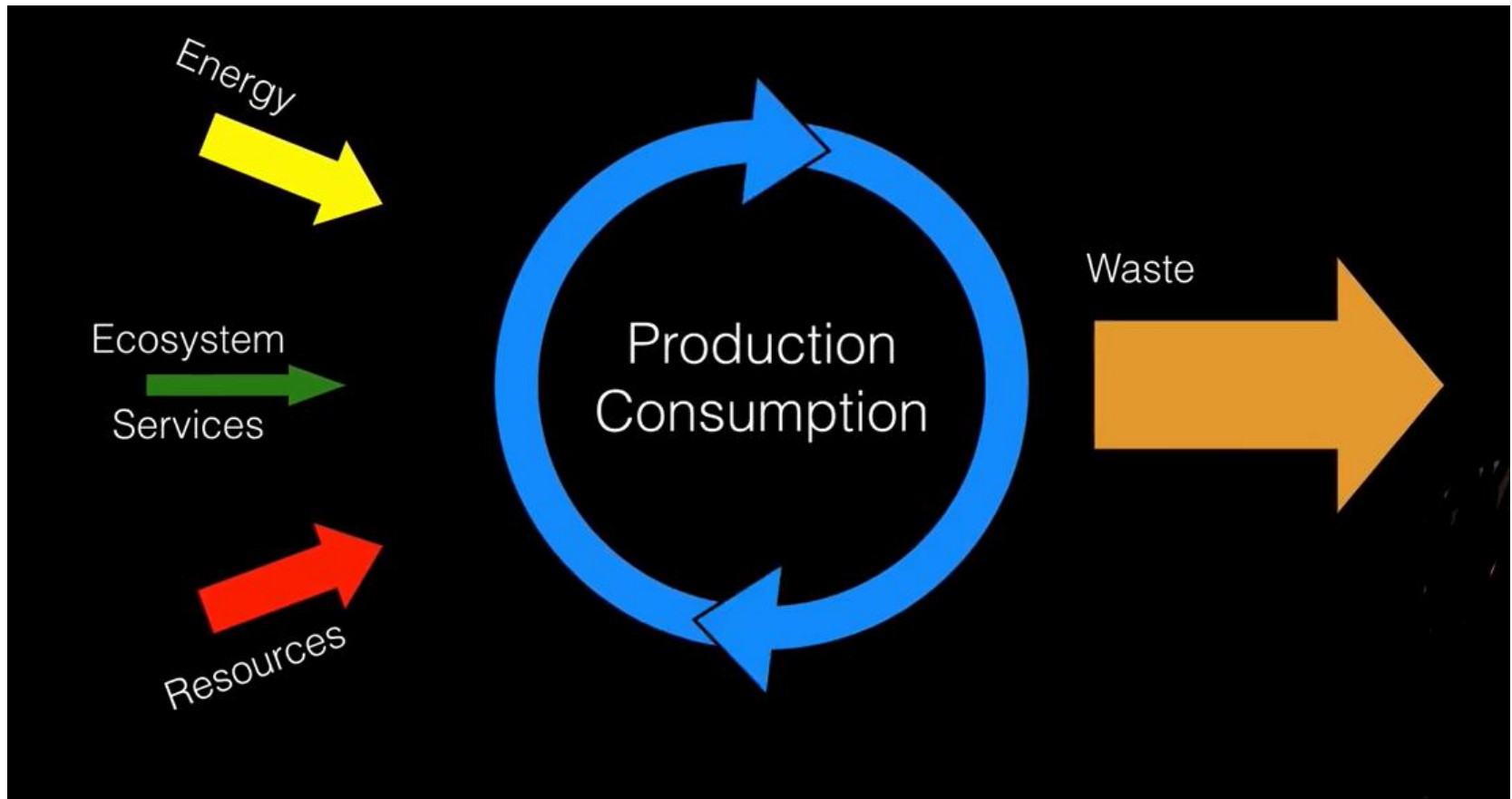
Feedback – when output of the system also serves as an input, leading to changes in the state of the system.

Systems tend to dynamic equilibrium, from time to time disrupted by natural and human-induced disturbances → changes over time.

Positive/negative feedbacks.



# „Save our planet“ vs. „Save our society“





Source: Česká  
televize



# Sources

- Mechteacher.com: Thermodynamic System and its Types
- Botkin, D.B.; Keller, E.A.: Environmental Science: Earth as a Living Planet.