



5.1 THE TRAGEDY OF THE COMMONS

RSK pg. 165 "The tragedy of the Commons"

ENDURING UNDERSTANDING

EIN-2

When humans use natural resources, they alter natural systems.

LEARNING OBJECTIVE

EIN-2.A

Explain the concept of the tragedy of the commons.

ESSENTIAL KNOWLEDGE

EIN-2.A.1

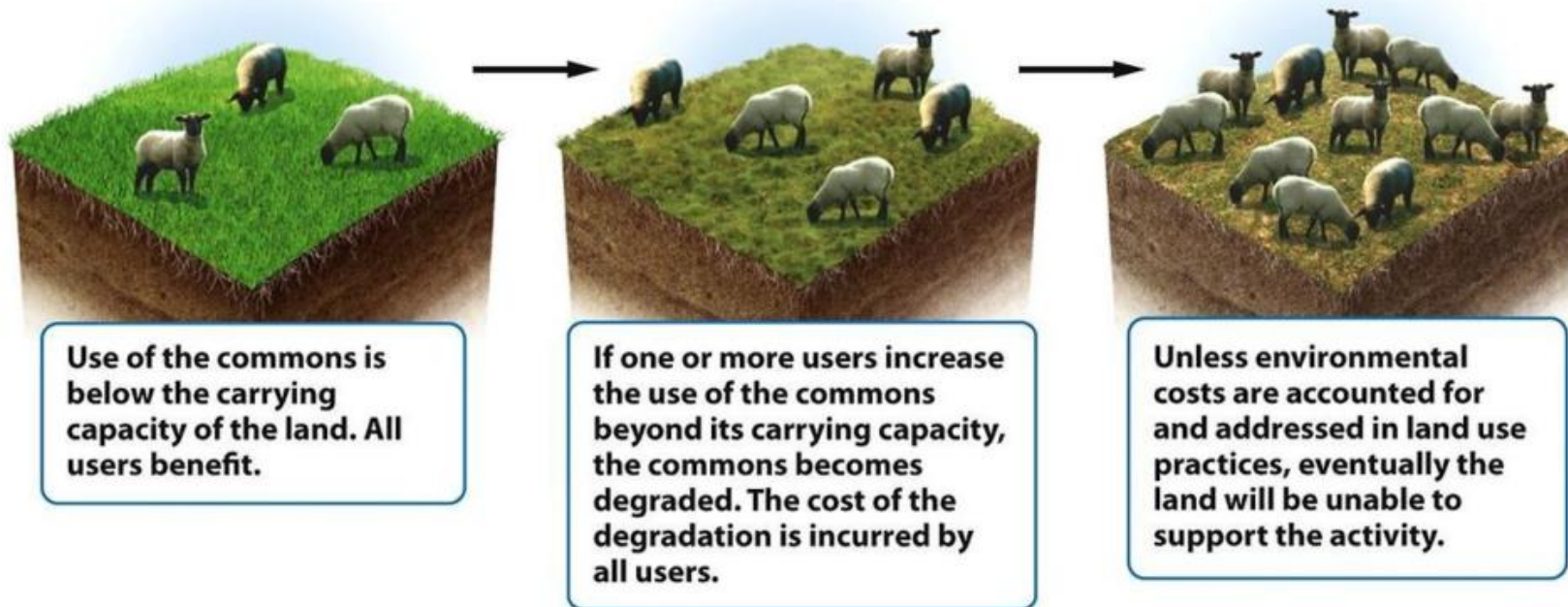
The tragedy of the commons suggests that individuals will use shared resources in their own self-interest rather than in keeping with the common good, thereby depleting the resources.

Tragedy of the Commons

- “When publicly accessible resources are open to unregulated exploitation, they tend to become overused and, as a result, they are damaged or depleted”

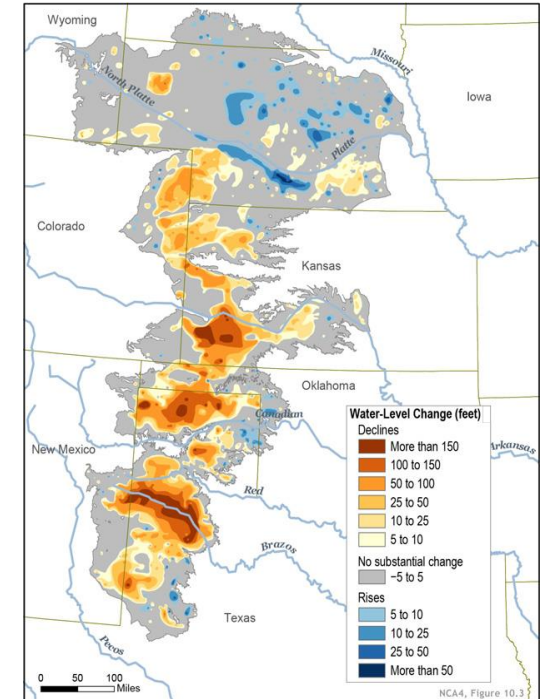
– Garrett Hardin

- Effects public resources where many different stakeholders are affected
- Degrades, depletes, or uses up a resource in some way that is not in the best interest of the common



Tragedy of the Commons

- Relates to many types of resources held and used in common by the public
- Examples
 - Unregulated logging
 - Overgrazing
 - Overfishing
 - Overdraft of groundwater
 - Water pollution (Gulf of Mexico Dead Zone, Great Pacific Garbage Patch)
 - Air pollution
 - Litter on the quad after lunch



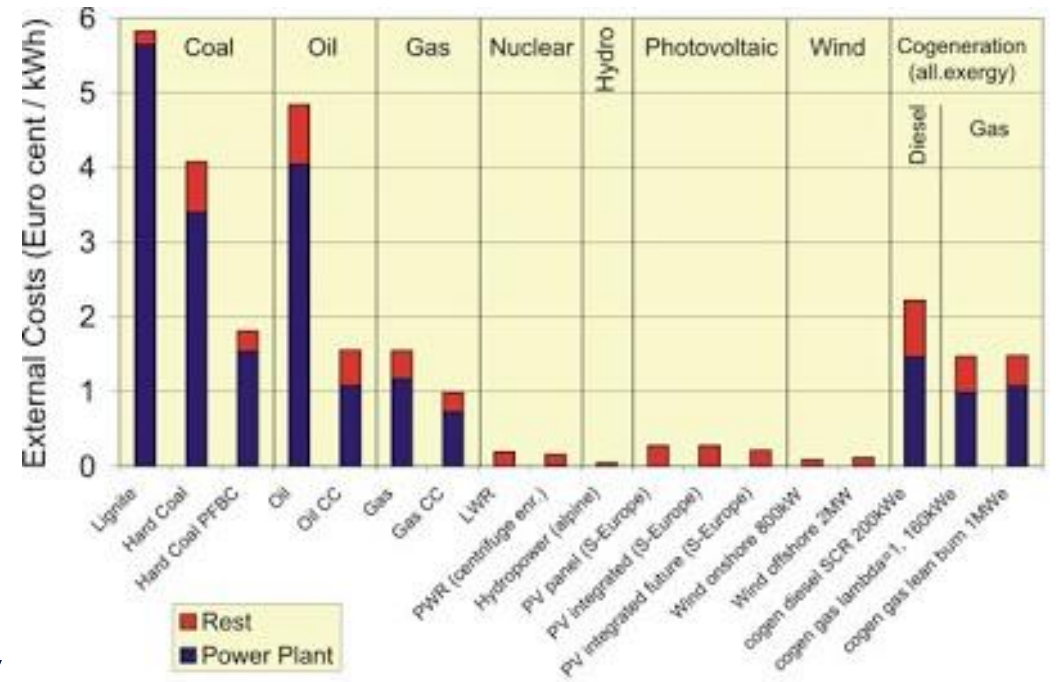
Causes of the Tragedy of the Commons

- Individuals profit from exploitation of the commons, but all users share the cost of one individual's exploitation.
 - There is the direct benefit to one company or individual overusing the resource
 - All users share the cost of an overused, degraded, and depleted resource.
- People assume others will overuse the resource, so they should get their "fair share" too.
- People see a resource as so vast, that taking a little more won't cause harm. When all users have such an attitude, a little more for each, adds up to a collectively large sum of resource exploitation.
- There is no immediate penalty for overusing, degrading, polluting many public resources



Economic issues related to the Tragedy of the Commons

- The “*free rider*” predicament
 - If responsible stakeholders voluntarily agree to address the problem, free riders can continue to benefit from exploiting the resource, undermining the cooperative approach to solving the problem.
- **External Costs**
 - Are negative costs associated with human actions that are not accounted for in the price of a product.
 - Damage to public resources, resulting from privately produced goods are rarely accounted for in the cost of the product itself.
 - Private industry benefits from increased sales of cheap goods, while the public shares the cost of the damage.
 - Many goods (gas, lumber, food, etc) do not reflect the true cost of production due to externalities.



Solutions to Tragedy of The Commons

- Community agreements and standards (bottom up management)
 - Work well when the resource is localized and its use is easily enforced
- Privatization
 - The resource is divided and allotments are sold or leased to individuals
 - Individuals have incentive to manage resources they own more responsibly since they will pay the costs of misuse.
 - Works reasonably well for logging and grazing on public land (forest service and BLM)
 - Hard to apply for resources such as air and water.
 - May promote short term profiteering at the long term cost of the resource
- Legislation by government (top down control)
 - Clean Air Act, Clean Water Act, Safe Drinking Water Act, etc
 - Impose limits, incentives / disincentives
 - Quotas, taxes, tax breaks, fines, subsidies

Video Resources

- Tragedy of the Commons (TED Ed)
 - <https://www.youtube.com/watch?v=CxC161GvMPc>
- Fishing as an example of Tragedy of the Commons
 - <https://www.youtube.com/watch?v=rkpnS8xllbs>