

# Tragedy of the Commons | APES activity

**Directions:** Read the essay below and answer the questions provided.

**NAME** \_\_\_\_\_

Imagine a pasture that is jointly owned by a group of ranchers. Each person is free to graze as many cattle on the shared land (or commons) as he or she wishes. When land is plentiful and herds are small, this system works well, providing both flexibility and freedom. As populations grow, however, each person asks: "What will I gain from having one more or one less animal on the range?" Because the animals are privately owned and the land is shared commonly, the benefits of adding one more animal go directly to the owner, but the costs and potential benefits of protecting the shared resource are distributed among the whole group.

Furthermore, because each individual acts independently, those who are most greedy and least principled gain most while those who are altruistic lose. The competitive response seems to be to exploit the resource as quickly and thoroughly as possible, because someone else will if you don't. For awhile, more cattle can be successfully supported by the commons. Eventually, however, the carrying capacity of the land will be surpassed and the quality of the range will begin to deteriorate. It is no longer able to support as many cattle, affecting everyone. Assuming that the amount of land is fixed, the only rational decision is to reduce the number of animals. But who will be the one to do so?

This scenario was presented in a paper entitled "Tragedy of the Commons," written in 1968 by Professor Garrett Hardin. This paper and its central metaphor have been among the most widely quoted and most influential of any in environmental science. The main point was that world resources can be threatened by excess population growth. The paper also points out that many commonly owned natural resources, such as ocean fisheries and public grazing land, are being destroyed because no one benefits as much from saving them as from exploiting them.

In the same way, we treat air, water, and energy supplies as commons. Unfortunately, we have a history of consuming resources wastefully and disposing of our wastes irresponsibly. The calculations of costs and benefits are similar to those of the ranchers in our metaphor. A single individual or corporation usually pays for reducing waste or treating pollutants before discharging them into the environment, but the benefits are shared widely throughout society. Although the **total** benefits may be greater than the

costs, the *individual* benefits probably are not, so the system tends to encourage exploitation with minimal cost and discourage good stewardship for its own sake.

Professor Hardin offers several solutions for solving this dilemma. He points out that in most areas we long ago abandoned the commons for food production, enclosing farmland and restricting pastures and hunting and fishing areas. We now recognize that using the commons for waste disposal will also have to be abandoned. And we are beginning to think about protecting resources such as energy, water, wilderness, biological diversity, and clean air. How to manage resources that cannot be divided and parceled out remains a problem, however.

One widespread approach to managing a commons is to create taxes or other incentives so that it becomes more profitable to conserve resources or clean up emissions than to be wasteful or polluting. Professor Hardin recognizes the utility of this approach, but he rejects the idea that the “invisible hand” of self-interest will go very far in promoting the public good. He also rejects the idea that we can appeal to conscience and good will. He claims that doing so only helps the unscrupulous and dishonorable. Instead, he advocates mutual coercion - enforcing controls that are agreed upon by the majority of the people affected. He sees the accompanying loss of freedom as a necessary trade-off if we are to avoid “misery of overpopulation.” He concludes that the freedom to reproduce without restrictions is intolerable in a finite world and will bring ruin to all if it is allowed to continue.

Although most environmentalists agree with Professor Hardin that our treatment of natural resources as commons has caused abuse, not everyone agrees with his analysis of why this has occurred or what the best solution might be. Socialists argue that, rather than abandon the commons, we simply need to distribute their benefits more equitably. When people perceive themselves to be part of a community in which all share costs and benefits equally, they are more likely to act in the public interest than when each individual rises or falls alone. The family is a model (in theory at least) of community property.

Many people also dislike the notion of enforced controls, even if they are mutually agreed upon, fearing that the weaker members of society will be coerced into agreement. Finally, some people argue that the resources on which humans depend are not so simply defined or physically limited as is the carrying capacity of a cattle pasture. Using a model that is too simple may limit our vision of human potential.

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1. What “commons” do you share with the other inhabitants of the biosphere
2. Are you personally exploiting or conserving the commons? Which actions would you take, or do you believe would be effective, in preventing resource users from exploiting their share of the “commons.”
3. If we assume that eventual overpopulation of Earth represents the single most significant threat to the commons, do we, as users of the commons, have a right to demand that limits be placed on human reproduction to protect the commons?