



Common pool resource dilemma games: An overview

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Common pool resources (CPRs) include most of what we (humanity) 'have' on Earth, such as air, water, oceans, fish, climate, minerals, land, etc. Garrett Hardin, in his influential 1968 article, was one of the early scientists to describe the phenomena, in the form of a model, which (following WFLoyd) he named tragedy of the commons, later renamed unregulated commons, because the mix of resources and humans usually leads to some form of tragic outcome, such as resource depletion and collapse

Some CPRs have already been, or are still being, grabbed, such as land, eg, Amazon rainforest, minerals. Some, eg, fish or climate, are still legally common, but a few grabbers behave as if they owned them privately. Some CPRs are renewable - to a certain extent, eg, forest. Some are not renewable, eg, coal or climate. Some are regulated – to a certain degree, eg, fish; some not or not much, eg, oceans. CPRs are complex, and often constitute a wicked problem. Probably no other environmental or Earth issue generates as much research, emotion, corruption, denial, abuse and mass homicide.

It is hardly surprising, therefore, that the issue has been encapsulated, in various ways, into simulation/games. The shapes and sizes of these representations vary widely. Gamer theory has, of course, taken an interest in CPRs. However, the general objective of the kinds of role-play simulation of concern here is to help people understand the full spectrum of dimensions in the commons dilemma: intellectual, emotional, social, environmental, economic, personal, ethical, existential, etc. Indeed, it is probably impossible to fully empathetically understand or intuitively feel the issues without having lived through them in some way. This is what role-play simulations provide – a rich experience. The learning (as usual) is to be derived essentially from reflection, sharing and guidance during and after the rough-and-tumble in game.

In our paper, we will:

- outline the notion of a common pool resource and why it may lead to tragedy;
- provide a comparative overview of some of the simulations that have been designed round the theme (eg, Powers, Commons Game; Powers-Crookall, Internet Commons; Meadows, Fishbanks; LePage, Rehab; Meadows-Crookall, ABMS Harvest);
- give a flavour of how some of the simulations work;
- show how they can be debriefed adequately to generate their full richness for meaningful learning.

If time, space and interest permit during the games evening, we will run a short common pool simulation recently produced using an agent-based modelling and simulation platform.