

One of the biggest traps that applies to the fishing game scenario is the tragedy of the commons, as discussed in Meadows' Chapter 5. The stock of fish is a commonly shared resource among fishers, and each fisher benefits by taking the largest amount of the stock possible. However, if each user acts selfishly and consistently disregards the needs of other users, the stock is depleted, and no one benefits since the stock is no longer available to any of the users. A potential solution to this issue is simply educating users on the consequences of abusing resources. Regulation of the stock and limiting each user's access to the resource can help avoid the trap, yet this solution does not always work. In the case of the fishing game, users may not be satisfied with the amount of stock they have access to, and if there are no repercussions for their actions, the feedback link will not be strengthened enough to prevent stock depletion. Similarly, take a public resource like public transportation; anyone can access this without restriction, and while there are laws in place to prevent destruction of property, there is very little anyone can do about one person leaving trash behind or spilling something on a seat. Users can still act selfishly and leave with few consequences, and no matter how many regulations are set, there is not much monitoring or enforcing of those regulations.

The tendency to act selfishly and disregard regulations both stated and unstated is very difficult to control. Is it fair to restrict the use of common resources? Would it accomplish anything to prohibit its use from just those who get caught disregarding regulations? No matter how many regulations are set, I don't think there is any way to prevent those few users from abusing the system. This idea feeds into another trap: rule beating. Some people are always going to leave gum under the seats of the public bus and never get caught for it. Some fishers are always going to take more than their fair share yet produce the appearance of rules being followed. I really don't think that any level of redesigning rules (a common solution to rule

beating) will prevent these actors from selfishness. Thus, regulation may not be the best solution to the tragedy of the commons, but it seems it is the best solution we have as of now. At least there are methods of restocking systems in a way, as there are people who clean the buses regularly and purchase new buses when they become too abused to function. If there is a way to restock the fish in the lake when users act selfishly, perhaps the regulation method could be enough to keep the system afloat.

The escalation trap also applies to the fishing game scenario. Without the existence of regulation, the stock of fish of one user (fisher) essentially determines the stock of another user, as they are constantly attempting to outdo the other. If two fishers begin by only taking one fish, they soon realize that as one fisher takes more, so does the other. Eventually, the stock will be depleted and both fishers' exponential growth will be terminated. This trap is best solved from its roots; if either fisher refused to compete, the other would have no need to continue trying to surpass the first. Then again, if there is nothing stopping either fisher from continuing to take more fish, neither will have any motivation to interrupt the reinforcing loop. Therefore, maybe refusal to compete in conjunction with policy and regulation would be most effective. Capping the amount of fish available to each fisher prevents escalation from going too far. Add in the consequences of depleting a common resource, and you'll find each fisher has a lot of incentive to stop the arms race altogether in pursuit of retaining a healthy stock.

Upon re-evaluation of the goals of the fishing system, perhaps there are other things to blame than selfishness. Let's say the fishers are not competing, but instead need to catch 2 fish each day to feed their families. At that rate, the stock would be depleted rather quickly and no fisher would benefit in the long-run. Maybe the trap lies among something else in the lake, like a growing population of predators of fish that force the stock level to a mere 20 fish. Perhaps it's

the fish population that's the issue and the rebirth rate is too low. If the common resource stock is too low to accommodate all users, I think it's reasonable to look outside of policy and regulations for solutions. When the goals of the system focus on users, solutions apply to the users and their actions and leads to regulation changes. If the goals of the system apply to outside entities, such as the families of the fishers, solutions lie within changes to the relationships between parts of the system, not to some overarching entity controlling the behavior of users.