“Environmental Conservation and Conflict”

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Extended abstract

Human history provides several examples of societies that collapsed following the full depletion of natural resources crucial for their survival (e.g. Easter Island, Maya as discussed in Diamond, 1997). One explanation put forwards to interpret these historical facts hinges on the myopic behavior of the elites ruling those societies. According to this theory, elites overexploit resources which are sufficient in the short run to satisfy the entire society’s needs. In the long run, however, depletion leads to competition for the appropriation of the scarce resources as the quantity left proves not sufficient to fulfill the non-elite’s basic needs.

In this paper we set up a general equilibrium model describing the elite’s incentives for resources conservation. We show that if the technological gap in fighting capacities between elites and non-elites is large enough resource depletion can be the equilibrium outcome even if players rationally anticipate exhaustion. When the power differential is not too big, we show that it is in the interest of players to strike a deal in which they limit their current resource consumption to guarantee their existence in the future.

If, however, elites enjoy a significant advantage in conflict activities, their willingness to reduce their current consumption decreases such that, at the limit, no potential deal exists, which both parties (elites and non-elites) would accept. The logic behind the result is somehow intuitive: the elite anticipate that despite the total endowment shrinking, they can exercise their power so as to increase their claim on the remaining resources.

This result adds new insights to the understanding of the obstacles which stand on the path towards an ecologically sustainable growth of our societies. The reluctance of some of the largest resources consumers to actively endorse global conservation agreements can be partly reinterpreted in light of this mechanism.

More generally, we show that explicitly addressing the conflict dimension in common pool resources management exacerbates even further the tragedy of the commons.