

Water scarcity and user Behavior: Economics of Cooperation under Extraction Caps

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Propositions

1. *Data on water extraction caps are useful in signaling water scarcity and nudging farmers and other users towards sustainable allocations of water.*
2. *Limits to water extraction, operationalized through bounded time and quantities have dissimilar effects on intertemporal water allocations. In “time treatment” groups, people prefer to allocate more water to the future and in “quantity treatment” groups more water is allocated to the present.*
3. *The deeper the water well is, the lesser the probabilities of cooperation with water conservation. However, the marginal probabilities decrease, depending on whether one assumes 5, 15 or 30 years before exhaustion.*
4. *Egoistic behavior is not as undesirable as it may seem if its purpose is to spare the community from irresponsible consumption.*
5. *Socio-biophysical data on extractions and aquifer status is an innovative, data-driven water governance tool at the local level.*
6. *Regional planning of water resources cannot longer leave the local system of rules unattended, since the built social institutions in water management can evolve.*
7. *Behavioral economics of water use will increase the high potential for researching, designing and implementing new approaches to improve the water usage for farming and domestic activities.*
8. *In Common-Pool Resources (CPR), since the water resource’s stocks, determine the possibilities of resource extractions at the local level, it is essential that actions to be undertaken by users are converted into feasible actions that will help to ensure truly sustainable water management in the region.*
9. *Present bias, drowning-kicks reaction, outflow routine effect, unlimited stock belief and other behavioral regularities and heuristics, in farmers’ decisions on adaptation to water scarcity, should be incorporated into the next generation of environmental and water resources planning tools.*
10. *A new generation of CPR management schemes led by goal-oriented water governance or extraction-capped governance systems need to be developed upon providing and forecasting feedback to all stakeholders.*
11. *Nothing more dangerous than a PhD researcher without supervision...*