Cooperation and equity in water management and intergenerational resource sharing

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The lecture addresses the issue of sustainable and fair sharing of natural resources. It applies the axiomatic theory of justice and cooperative game theory to the problems of water management and overlapping generation extraction of resource. We start by analyzing the problem of dividing the welfare from extracting a common-pool resource among users under symmetric. We then move to the case of sequential access to the resources with two applications: river sharing and intergenerational equity.

Dates: February 23 through 25, 2010

Lectures:

1 Sharing common resource fairly
2 Cooperation and equity in river sharing
3 Intergenerational sharing of a natural resource

Reading list:

Albis (d') H. and S. Ambec (2010) Fair intergenerational sharing of a natural resource, *Mathematical Social Science* forthcoming. . Available at: http://www2.toulouse.inra.fr/lerna/travaux/cahiers2009/09.23.299.pdf

Ambec S. and L. Ehlers (2008) Equity and efficiency in the river sharing problem, in *Game Theory and Policy Making in Natural Resources and the Environment* Edited by A. Dinar, J. Albiac and J. Sanchez-Soriano, Routledge Explorations in Environmental Economics 2008. Available at: http://www.grenoble.inra.fr/Docs/pub/A2007/gael2007-06.pdf

Ambec S. and L. Ehlers (2008) Sharing a river among satiable agents, *Games and Economic Behavior*, 64:35-50.

Ambec S. (2008) Sharing a common resource with concave benefits, *Social Choice and Welfare*, 31: 1-13.