

## **Session 5:**

### **The role of economic instruments in no-regret adaptation**

#### **1. Goal:**

Increase the understanding of the participants on the potential benefits, as well as the limits and challenges concerning economic and financial instruments for no-regrets adaptation to climate change in water management

#### **2. Learning objectives:**

At the end of the session, the participants will be able to:

- Understand the different economic and financial instruments presented
- Strategize the use of different policies and instruments to build climate resilience
- Promote adaptation at the appropriate level.

#### **3. Key messages**

- Adaptations can have a public good, private good or common good character. They all have in common is that they are based on a comparison of the advantages and disadvantages of a certain course of action.
- The way water should be used and what is worth subsidizing is politically and socially constructed.
- Solutions lie in combined economic and institutional instruments to render resource allocation more flexible by reducing transaction costs, while bringing in equity concerns.

#### **4. Resources:**

- Agrawala, S., Fankhauser, S. (Eds.). 2008. *Economic aspects of adaptation to climate change. Costs, benefits and policy instruments*. OECD. 133 pages. [www.sourceoecd.org/environment/9789264046030](http://www.sourceoecd.org/environment/9789264046030)
- Agrawala S, Carraro, M. 2010. *Assessing the role of microfinance in fostering adaptation to climate change*. OECD Environmental Working Paper No. 15.
- AWWA (American Water Works Association). 2004. *Thinking outside the bill: A utility manager's guide to assisting Low-Income water customers*. Denver: AWWA.
- Barraqué, B. 2004. *Les marchés de l'eau en Californie, Modèle pour le monde, ou spécificité de l'ouest aride américain ?* Annales des Mines, Janvier, pp. 60-68.
- Baumann, D.D.; Boland, J.J. and Hanemann, W.M. 1998. *Urban water demand management and planning*. New York: McGraw Hill.
- Boland, J. and Whittington, D. 2000. *The political economy of water tariff design in developing countries: Increasing block tariffs vs. uniform price with rebate*. In Dinar A. (Ed), *The political economy of water pricing reforms*, pp. 215-235. Washington, DC: The World Bank. New York: Oxford University Press.

- Fernandez S., Mouliérac A. 2010. *Economic evaluation of water demand management in the Mediterranean*. Study Report. Plan Bleu. 45 pages. ([http://www.planbleu.org/publications/eval\\_economique\\_GDE\\_fr.pdf](http://www.planbleu.org/publications/eval_economique_GDE_fr.pdf))
- GTZ. 2007. *Economic approaches to climate change adaptation and their role in project prioritisation and appraisal*. Report. 35 pages.
- Montginoul, M.; Rinaudo, J-D.; Lunet de Lajonquière, Y.; Garin, P. and Marchal, J-P. 2005. *Simulating the impact of water pricing on households behaviour: The temptation of using untreated water*. *Water Policy* 7(5), pp. 523-541.
- Olmstead, S.M.; Hanemann, W.M. and Stavins, R.N. (n.d.). *Do consumers react to the shape of the supply? Water demand under heterogeneous price structures*. *American Economic Review*, under review.  
<http://areweb.berkeley.edu/~hanemann/Olmstead-Hanemann-Stavins%20water.pdf>
- Rosenberg, D.E.; Tarek T.; Abdel-Khaleq, R. and Lund, J.R. 2007. *Modeling integrated water user decisions in intermittent supply systems*. *Water Resources Research* 43(7): W07425.
- Salzman, J. 2005. *Creating Markets for Ecosystem Services: notes from the field*. *New York University Law Review*, vol. 80, pp 870-962
- Ward, P. J., Paux, P., Brander, L., Aerts, J., Strzepek, K. 2010. *Costs of Adaptation Related to Industrial and Municipal Water Supply and Riverine Flood Protection*. Discussion Paper n°6, August. The World Bank.