

## **Gareth James Lloyd, DHI Water Policy/UNEP-DHI Centre – What is the difference between adaptation and adaptive management?**

Adaptation refers both to the *process* of adapting and to the *condition* of being adapted. The term has specific interpretations in particular disciplines. The IPCC (2007) defines climate adaptation as, “adjustment in natural or human systems in response to actual or expected climatic stimuli or other effects, which moderates harm or exploits beneficial opportunities.” Adaptive management (AM) is a structured, iterative process of optimal decision making that focuses on improving management policies and practices by learning from the outcomes of implemented management strategies (Pahl-Wostl 2007). AM is particularly beneficial for addressing uncertainty, such as uncertainty related to future climate change predictions, as it offers a way of reducing uncertainty over time. NeWater (2005-2008), a trans-disciplinary research project funded by the European Union, involved investigating whether AM could lead to enhanced and more sustainable water resources management. The relevance of water management from a climate change perspective is that climate change has been predicted to have a major impact on water resources, particularly in terms of quantity and timing (IPCC 2007). While integrated water resources management (IWRM) is the internationally accepted approach for achieving sustainable water resources management; research has cast doubt on the extent to which IWRM can address uncertainty within its implementation cycle. The result of the work was the formulation of an innovative double loop learning cycle that could be applied in practice to the planning cycle of the EU Water Framework Directive, which draws heavily on IWRM thinking. This new approach is called Adaptive Water Management.