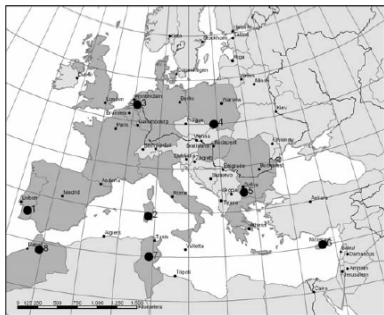
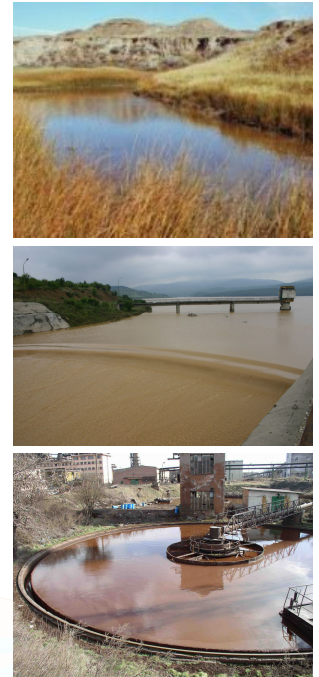


**AquaStress (<http://www.aquastress.net>)**

**Mitigation of Water Stress through new Approaches to Integrating Management, Technical, Economic and Institutional Instruments**

AquaStress is an Integrated Project (IP) funded by the European Commission in the frame of the 6th R&D Framework Programme, with 35 partners from 17 countries and a duration of 4 years (2005-2009).

Water stress is a global problem with far-reaching economic and social implications. The mitigation of water stress at regional scale depends not just on technological innovations, but also on the development of new integrated water management tools and decision-making practices. The AquaStress IP delivers enhanced interdisciplinary methodologies enabling actors at different levels of involvement and at different stages of the planning process to mitigate water stress problems. The IP draws on both academic and practitioner skills to generate knowledge in technological, operational management, policy, socio-economic, and environmental domains.



**Case Studies:**

- AquaStress adopts a Case Study - stakeholder driven approach (case studies at 8 different test sites) and is organised in three phases;
- (i) characterisation of selected reference sites and relative water stress problems,
  - (ii) collaborative identification of preferred solution options,
  - (iii) testing of solutions according to stakeholder interests/expectations.

**EXETER/CWS Contribution:**

The application of Conceptual Modelling, Systems thinking and System Dynamics Modelling (SDM) for the simulation of the project's case studies as complex dynamical water and/or environmental systems. SDMs will then be used to develop a Decision Support Tool that will integrate different technical options for the mitigation of water stress. This type of Systems Modelling, being lower in detail and higher in integration, allows the domain experts and the local stakeholders to explore the relationship between various technical options and the overall system behaviour and increase their understanding of the interactions and impacts among different water sectors. The prototype application involves the water system of the Kremikovtzi industrial plant (Bulgaria), where the aim is to reduce clear water consumption and increase water re-use within the plant, as well as increase water quality.

