Geoethics in water management – Resources for higher education (GOAL Project framework)

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The recognition of the Human Right to Water and Sanitation by the United Nations General Assembly in 2010 marks a major symbolic and legal milestone. The United Nation's Sustainable Development Goals (UN SDGs) incorporate the different interests of society. In combination with limited resources conflicts of interests are inevitable. Competing interests of different stakeholders concerning water and land-use management are particularly big drivers of conflicts in this field. Also the personal daily behaviours of its individuals influences the water and energy consumption of whole society.

An essential baseline to achieve societal goals related with water might be the implementation of coherent environmental policies. Transnational implications of e.g. large water-infrastructure projects bring additional complexity to decision making processes. The Implications of climate change on water management add another layer of uncertainty.

Professionals with a higher education in geosciences are at the heart of humankind’s attempts to deal with all of this issues. They are not only supposed to hold technical expertise, but also understand their responsibilities. A modern education of the students in geosciences therefor has to account for this challenges. Geoethics is capable of providing the theoretical background on this challenges.

The GOAL project (Geoethics Outcomes and Awareness Learning) aims in general at improving the concepts and practices of Geoethics and specifically to provide educational material (a syllabus and complementary educational resources) to be used in higher education. From the wide range of geoethical issues related to water management, two cases were chosen to introduce students to the concepts of Geoethics. The water supply system of Austria’s capital Vienna serves as a starting point to deal with questions like utilization pressure on water and land. An historic dam that is now used for production of "green" electric energy via hydropower, sets the frame for the discussion about the impacts of hydropower on the riverine ecosystem.

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