

Seminar on sustainable hydropower development – Ankara, Turkey, 18th – 19th of June, 2013

Water consumption from hydropower plants – State-of-the-art and scope of work for further research

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Climate change asks for the development of new renewable energy. The IPCC Special Report on Renewable Energy Sources and Climate Change Mitigation (2012) is a benchmark in the assessment of to which extent and to which costs, in a wide sense, renewable energy sources can replace fossil based fuels. The IPCC-report also assessed the water needed to produce a certain volume of electricity from various renewable technologies, and the study uncovered a great need to perform more research within this topic. The talk at the seminar on sustainable hydropower development, hosted by METU (Turkey), will present the first findings from a newly launched research project on water consumption from hydropower plants and reservoirs. A review to be published this Summer documents that more studies on the topic are now available than when the IPCC-report was finalized, that the published estimates show a large variation with maximum values far beyond the published values by IPCC, and that the methodological basis for assessing the water consumption from hydropower projects is weak. The talk will further on present ideas for new research activities with a close cooperation with Turkish partners.

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