Geophysical Research Abstracts
Vol. 14, EGU2012-5605, 2012
EGU General Assembly 2012

Runoff conditions in the Zambezi basin under historic climate and possible future scenarios

H. Kling, M. Preishuber, and M. Fuchs
Pöyry Energy GmbH, Vienna, Austria (harald.kling@poyry.com)

The Zambezi basin covers 1.4 Mio km^2 and is Africa's fourth largest basin. The Zambezi River and its major tributaries are of vital importance to the eight countries sharing the basin. Apart from the ecological value, river runoff is used for hydropower generation, including two of the world's largest hydropower dams (Kariba, Cahora Bassa). Several additional large dams are currently in the planning stages. Future water use may also see a sharp increase of water diversions for irrigation. Atop on these human-made impacts on river runoff, future runoff conditions may also be strongly affected by climate change. To assist in the assessment of future water resources availability a web-based Decision Support System (DSS) is currently developed for the whole Zambezi basin. This open, easy-to-use tool enables to analyze the different impacts of dams (existing and new), irrigation projects and climate change scenarios. The outline of the DSS, data-basis, and simulation under historic conditions and future scenarios will be presented.