



“Gheorghe Asachi” Technical University of Iasi, Romania



HYDROPOWER DEVELOPMENT - COMPLEXITY AND RISKS

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Abstract

Hydropower exploitation has become a multifaceted task due to continuously increasing interest in all parts of the world but also due to inhomogeneity of framework conditions in the social, the political, the regulatory and the economic view. The final success of a plant is not only ensured by a good technical concept or design but additionally by a suitably model of financing, by selecting the most reliable partners, by evaluating the environmental restrictions or the political stability of the country where the plant will be built.

All the decisions to be taken are related to a specific uncertainty and consequently a specific risk, bound to country specifications like the legal situation, the political stability or the economic situation but also to technical topics like design, construction and operation of the plant. In order to gain the highest possible stage of certainty it is recommended to follow a more or less comprehensive checklist of risks related to hydropower development. The contribution is the outcome of the long term experience of several hydropower engineers and very many individual projects.

Unfortunately it is not possible to offer solutions to all the risks identified. Risk will remain but it should be recognised, calculated or at least evaluated to avoid a big surprise in a late stage.

Key words: engineering, hydropower, risk analysis

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