The risks in hydropower construction are substantial and projects are well known to overrun by an average of 25% despite all the risk mitigation measures taken, the authors say.

The team would be keen to hear from anyone with finance experience who would like to contribute to the ongoing research. Please email info@cisl.cam.ac.uk.

References


http://www.mcw.com/page3.s


A state-of-the-art model-based multi-criteria assessment and optimisation of alternative water-energy-infrastructure system designs will be delivered as part of the project. Future models will include a hydropower dam, location, size, operations, and their link to wider regional energy, food production, economic, ecological, political and social systems. An online analytical and training toolbox will allow collaborative working between diverse groups such as local and national stakeholder and sectoral groups, investors, planners, consultants and academics.

The dams decision-making framework and analytical toolbox will be developed in partnership with key stakeholders in Myanmar, the West Africa Volta basin, and the East African Nile river basin.

Introducing FutureDAMS

The FutureDAMS research and capacity development partnership unites academics, practitioners and policy makers to improve the planning and governance of dams. Supported by the UKRI Global Challenges Research Fund Grant ES/P011373/1, it is developing the knowledge base, tools and approach to enable dam projects to support resilient and sustainable development.

The project aims to co-develop, with institutional and case-study partners, an approach and toolbox to help design and plan better human interventions in complex human-engineered natural resource systems, with a focus on developing countries. Dams and systems of dams are conceptualised and assessed as water-energy-food-ecology system interventions that span all economic, social and environmental benefits and resilience under a range of plausible futures.

“Inter- and cross-disciplinary research assessments will identify what has worked well historically and what needs improvement. A new framework for dam system decision-making will seek to enable the effective negotiated design of complex systems.”

The proposed approach will use innovative and appropriate decision-making tools to support effective negotiated design of these complex systems. The proposed approach will use innovative and appropriate decision-making tools to enable dam projects to support resilient and sustainable development.

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