

Energising Development: Rusumo Falls Hydroelectric Project

Photo: Jakob Granit

Is investment in hydraulic infrastructure necessary for economic growth? This question was debated by a distinguished group of researchers, policymakers, water managers and donors at the 2005 World Water Week in Stockholm. Based on presentations by a number of experts and case studies from the USA, China, Brazil, Australia, and the Nile Basin, the conclusion was a resounding yes.

The centrepiece of the discussion was the planned Rusumo Falls hydroelectric project on the Kagera River – a cooperative effort by Burundi, Rwanda, and Tanzania. Once operational, the hydrostation at Rusumo Falls would bring 60 megawatts of renewable, low-cost power to the national grids of the three countries and to the local communities in the project area in a region where only around 2% of households have access to electricity.

The project was selected following a careful strategic assessment of regional power generation and transmission interconnection options in the Nile Equatorial Lakes region to meet the region's urgent energy demands. Undertaken with the input of regional stakeholders, the assessment covered economic and engineering feasibility and environmental and social impacts. The project was assessed as one of the best evaluated regional projects. The continued project preparation phase will entail a full project environmental and social assessment ensuring best practice in project design and sharing of benefits to affected people.

The Kagera River is shared by Burundi, Rwanda, Tanzania and Uganda and is the most remote headstream of the Nile River, as well as the largest tributary to Lake Victoria, the world's third largest freshwater

lake. About 14 million people live in the Kagera basin, which spans 60,000 square kilometres.

Currently the region's social development and economic growth are stymied by lack of reliable power. Businesses must invest in their own generators or suffer through the frequent black outs and brown outs. Most households still rely on wood for their cooking and heating needs, leading to deforestation and soil erosion.

With a price tag of an estimated USD 150 million, the project is considered a good buy by the energy-strapped countries that will share its benefits. Financing of the project is a challenge and the countries are currently exploring different options including public and private partnerships. The World Bank has committed to jointly support the preparation phase of the project and mobilize financing through partnerships.

The Rusumo Falls project is part of the basin-wide, multipurpose Kagera River Basin Management and Development Project, which includes Burundi, Rwanda, Tanzania and Uganda. The multipurpose approach looks at hydraulic infrastructure development within the broader environmental challenges and social development needs of the region – rural electrification, irrigation and agricultural development, rural roads, transboundary parks and catchment management activities. Sweden, Norway, and the EU have pledged support for the project which will begin in 2005.

One of the first infrastructure projects planned under the Nile Basin Initiative, the Rusumo project has already been approved by the eight Nile countries that could potentially be affected as well as the ministers in charge of electricity for the three countries that share the basin.

“We believe that people coming together in this way to share resources can be a catalyst for peace and regional cooperation,” says Mr. Albert Butare, Minister of State for Energy and Communication, Rwanda, during the World Water Week Seminar entitled “Hydraulic Infrastructure as a Platform for Economic Growth.”

Specifically, the objective of the project is to supply new energy and capacity to the existing power grid based on renewable hydropower energy, to foster international cooperation in hydropower project development, and to electrify new areas and improve regional power supply reliability by interconnecting the power networks of the eastern part of the Democratic Republic of the Congo, Burundi, Rwanda and the national network of Tanzania.

The Rusumo Falls case study, and the seminar in general, encapsulated in many ways the discussions taking place during the water week on the viability of different “hard” and “soft” solutions for development in river basins. For Africa, the call for more infrastructure was evident during the week, and the discussions in Stockholm revealed the potential economic benefits in places such as the Kagera River basin. The key, as was often emphasised, is that infrastructure needs to be designed and built with an active process of stakeholder involvement, and countries and regions need to make decisions for themselves, and in dialogue with one another. Opportunities for such dialogue will continue in the future. According to the World Bank, hydropower provides about 19% of the world's electricity supply, and the remaining exploitable potential is 5,400 TWh a year – 90% of which is in developing countries.