

Name:	32. MAINTENANCE OF HYDROPOWER POTENTIAL IN RWANDA THROUGH ECOSYSTEM RESTORATION		
Region	Africa	Country	Rwanda
Ecosystem	Inland water		
Nature of approach	Improvement in capacity, design and policy measures (promoting policy change, incorporation into relevant strategies); Implementation of EBA measures (natural resource management, diversifying livelihoods)		
Description of approach	<p>Objective/Expected outcomes</p> <p>In the area of northern Rwanda, surrounding the Rugezi wetlands, high dependence on agricultural activities for livelihoods, as well as the forests to supply wood fuel, contributed to land degradation within the watershed. In 2003-04, Rwanda experienced a major electricity—and as a result, economic—crisis. This was attributed to water shortages in the main reservoir supplying the generating stations, due to degradation and poor management of the surrounding watersheds, reduced rainfall, and additional factors including poor maintenance of the infrastructure.</p> <p>Given uncertainty surrounding the predicted impacts on the climate as a result of climate change, a programme of activities to restore the degraded Rugezi-Bulera-Ruhondo watershed was initiated. This aimed to build resiliency into the hydroelectric system to enable it to adapt to either future increases or decreases in precipitation in the future.</p> <p>Actions</p> <p>Initial measures involved the creation of a policy halting on-going drainage activities in the Rugezi Wetlands and banning agricultural and pastoral activities within and along its shores. These response measures, however, also meant that rural households in the region were no longer able to access key resources, adversely affecting the productivity of their livelihoods.</p> <p>Subsequently, a programme of agricultural and watershed management measures was implemented to offset the initial adverse impacts of their watershed protection policies. This included construction of erosion control structures; planting a bamboo and grass belt around the Rugezi Wetlands; planting trees on surrounding hillsides and distributing improved cookstoves (negating the need for wood fuel). Assistance was provided to farmers to implement sustainable agriculture measures and improve their livelihoods, including through additional income-generating activities such as beekeeping.</p> <p>The local population was engaged in restoration efforts, for instance, filling in existing drainage ditches, which also increased awareness.</p> <p>Additional interventions included establishing local watershed management committees and developed community-based management plans, as well as incorporation of wetland protection measures in planning and other policies.</p> <p>Results achieved</p> <p>The combination of integrated policy interventions and measures taken to restore the wetlands resulted in the return of the hydropower station to full operational capacity. The restoration of the wetlands provided alternative livelihood options, including fishing, which had been lost due to the degradation of the ecosystem. Activities to support local communities to changing water regimes, and helping to diversify livelihoods, have increased the resiliency of people climatic changes.</p> <p>Lessons learned (particularly highlighting the benefits and challenges related with ecosystem-based approach)</p> <p>Trade-offs are a challenge that can sometimes results from ecosystem-based approaches to adaptation. In this instance, the restoration of the wetland to provide water storage was at the expense of some of the other services provided (related to</p>		

	agricultural production in the short term).		
Type of organisation	Government	Name of organisation:	Government of Rwanda (multiple ministries)
Further information and contact details	WRI 2011: World Resources Report Case Study. World Resources Report, Washington DC		