

# International Finance Corporation

Adaption Program Focuses on Climate Change



From 2009-2010 Strategic Sustainability Consulting (SSC) worked with the International Finance Corporation (IFC) Adaption Program alongside Tetra Tech to examine the role of private sector adaptation opportunities in order to minimize the impacts of climate change. The specific project looked at the Kaufue Gorge Hydropower utility provider and the potential role it may play in climate change mitigation and adaption.

## *The Challenge*

The IFC, a member of the World Bank Group, is the largest global development institution focused exclusively on the private sector in developing countries. Established in 1956, IFC is owned by 184 member countries, a group that collectively determines the organization's policies. IFC's work in more than a 100 developing countries allows companies and financial institutions in emerging markets to create jobs, generate tax revenues, improve corporate governance and environmental performance, and contribute to their local communities.

Moving forward IFC designated addressing climate change and ensuring environmental and social sustainability as one of their top strategic priorities. SSC worked with the IFC Adaption Program, as part of the Tetra Tech team, to examine the role of private sector adaptation opportunities in order to minimize the impacts of climate change. IFC initiated the Climate Risk Case Studies Program, a series of pilot studies that analyzes climate risks and adaptation options for a number of private sector projects. The specific project looked at the Kaufue Gorge Hydropower utility provider and the potential role it may play in climate change mitigation and adaption.

## *The Solution*

- **Stakeholder Meetings:** Tetra Tech and SSC facilitated meetings with IFC, national and local government agencies, the private sector, universities, and other organizations to discuss climate change, climate change, and adaptation as well as to gather data.
- **Climate Change Modeling:** Global climate change models were downscaled for specific regions in Zambia. Scenarios looked at 50 and 100 years into the future for impact consideration and a weather generator was implemented to determine future rainfall events.
- **Hazard Assessment:** Hazards, including floods and drought, were identified for specific regions in Zambia. Historic information concerning causation, frequency, severity, and geographic extent was also collected.
- **Risk Assessment:** Flood and drought risk assessments were conducted to estimate damage and losses due to 50-, 100-, and 500-year probabilistic events. Mitigation and adaption options were considered using the benefit cost analysis and Social, Technical, Administrative, Political, Legal, Environmental, and Economic (STAPLEE) considerations. Financial modeling was also undertaken related to risk assessment findings.
- **Transfer of Knowledge:** A software tool was developed to allow stakeholders to run mitigation scenarios to determine the benefits of mitigation and the impacts to operations.
- **Vulnerability Assessment:** Buildings and infrastructure owned by the hydropower operation were assessed for damage due to future flood events. Data concerning the structures is currently being collected for this effort.

## *The Results*

SSC, as part of the Tetra Tech team, provided the local Zambian liaison personnel and IFC with concrete data in order to move forward on sustainability strategies focused on adaptation opportunities in order to minimize the impacts of climate change. Findings from stakeholder meetings, climate change modeling, hazard assessments, risk assessments, software mitigation scenarios, and vulnerability assessments equipped the team with a unique view of the current challenges and opportunities ahead. IFC's ongoing **sustainability efforts** and **Climate Risk Case Studies Program** are available on their website.

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Strategic Sustainability Consulting Case Study