Glaciers on one of the peaks of Mt. Rwenzori. The drying of rivers on the mountain is partly atrributed to the disappearance of the glaciers

Power dams threatened as Rwenzori rivers dry up

By John Thawite

Electricity generation on River Mubuku in Kasese district is under threat following a reduction in the river water levels on which the Bugoye hydro-power dam depends.

One of the worst-hit hydropower plants is Bugoye dam, which entirely depends on River Mubuku, which originates from Mt. Rwenzori.

The plant operations manager, Bonny Munihiza, said water levels in the river have declined to worrying levels, reducing the power generation by about 26%.

The plant, which was constructed by a Norwegian company, Tronder Power Ltd, in 2007, was later sold to Bugoye Hydro Ltd. The dam was designed to produce 14MW.

"The water level in the river has gone down, thereby reducing electricity production to 4MW instead of 14MW which the plant was designed to produce," Munihiza said.

He did not state how much revenue the company was losing as a result of the reduced electricity generation.

River Mubuku also supports another hydropower plant on the Kasese-Fort Portal highway constructed and owned by the Kasese Cobalt Company Ltd (KCCL) to produce power for the cobalt plant.

Munihiza made the revelation while passing out 34 community members who had been undergoing a three-month skills training sponsored by the company at Kasese Youth Polytechnic recently. The training focused on tailoring, carpentry and joinery and house construction.

During the function, Munihiza handed over start-up equipment to the trainees.

Munihiza said the company has been supporting community projects including extension of electricity and clean water to villages in Bugoye and Maliba sub-counties.

He added that they also built pit latrines at Bugoye and Kyanya primary schools.

"We have so far injected more than sh230m into these community projects," Munihiza said.

Residents of Bugoye and Maliba sub-counties with some of the start-up equipment they received from the management of Bugoye power dam. Photo by John B. Thawite

The 14MW Bugoye dam on River Mobuku

Conservationists speak

The Rwenzori Mountains National Park senior warden, James Okware, attributed the water reduction in River Mubuku to global warming, saying it is as a result of the drying up of the glaciers on Mt. Rwenzori.

Okware said Mt. Rwenzori, which is a water tower for various lakes including Victoria and several rivers in the Democratic Republic of Congo, is now ailing due to the loss of the snow cover and reduction of water in the mountain borgs and lakes.

He said the glaciers, which have been feeding 50 glacier lakes in the mountains, have reduced since 1900.

"The glaciers which have been supporting the rivers have reduced from 15 square kilometres in the early 1900s to only 1.5 sqaure kilometres (as of November 2017)," Okware said.

"The problems we are facing now will be worse in the next decade," he said, explaining that the glaciers "might be no more".

Okware also attributed the reduction unregulated obstruction and diversion of the river water upstream by the communities who use the water for small-scale irrigation.

He said the water volumes have been reducing from between one and two metres in the park (before the river reaches the communities) to only about 0.3 metres by the time it reaches Mubuku bridge on the Kasese-Fort Portal highway.

Global warming has been blamed mainly on massive carbon emissions by industrialised countries.

Okware urged the industrialised countries to extend support towards the restoring of endangered ecosystems.

"The industrialised countries should invest in interventions like afforestation and the use of clean and renewable enegry like solar. Hopefully, this could help in restoring the eco-balance," he said.

Current interventions

In 2016, sh8.1b was injected into the Mt. Rwenzori National Park to conserve the ecosystem.

The money included euros 700,000 from France, through the French Global Environment Facility, euros1.3m from the European Union and euros 50,000 from private firms. The project was dubbed *'Sustainable Financing of the Rwenzori Mountains National Park Project'*.

The three-year project is jointly implemented by World Wide Fund (WWF) France and WWF Uganda in the 995-square-kilometre Mt. Rwenzori National Park landscape covering the western districts of Kasese, Ntoroko, Bundibugyo and Kabarole.

The Kasese senior environment officer, Augustine Kooli, attributed the water reduction to the current dry season and poor agricultural practices, which he said has negatively affected water sources across the district.

Kooli noted that communities in the river catchment areas were destroying the environment despite efforts by district and other stakeholders to combat the illegal practices.

He cited tree cutting, especially around water sources with little replacement, cultivation along river banks, bush burning and global warming.

According to Kooli, other hydropower plants endangered are those on rivers Nyamwamba, Nyamugasani and Lhubiriha under construction and all depending on the rivers which originate from Mt. Rwenzori.

2 Reasons why rivers dry up

The main reasons why the rivers originating from Mt. Rwenzori are drying up are as explained below:

1 Global warming, which is the general rise in temperature of the earth, has led to the drying up of the glaciers that feed the rivers from the mountain top. Global warming is mainly caused by increased carbon emissions and deforestation in the world.

2 The local communities' activities such as bad agricultural practices have led to the reduction on the volume of water down stream. Some farmers are using the water for small scale irrigation.