

Preparing for climate change – experiences from Zambia



A borehole at Kalobolelwa school, a critical asset in this drought-prone area

Senja Väätäinen of IUCN outlines how coping strategies are evolving in different parts of the country.

Developing countries such as Zambia are considered highly vulnerable to the adverse effects of climate change, since a large part of their economy is dependent on climate-sensitive sectors (namely those dependent on natural resources) and their adaptive capacity is often limited by weak human and financial resources and by low institutional and technological capability.

As part of the pilot phase of its Climate Change and Development Project, IUCN has been undertaking a climate change vulnerability assessment in three rural areas of Zambia, as well as similar activities in Tanzania and Mozambique. This article looks at the preliminary findings from the Zambian sites.

The first area, covering the villages of Mulauli and Mutuka, is located within the Kapiri Mposhi district of central Zambia. Kapiri Mposhi is within easy reach of Lusaka and has good connections to the capital. The road network connecting the villages within the district is also in good condition, which explains the presence of many organizations and programmes in Mulauli and Mutuka. The area receives about 1200mm of rainfall per year.

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In contrast, the second site, focusing on the two villages in Kalobolelwa area in Sesheke district is in the south-western part of the country, where the climate is affected by the Kalahari Desert. Here, annual rainfall averages only about 650mm. The road from Kalobolelwa to the nearest town is in very poor condition and the village is largely isolated from the outside world. Here, unsurprisingly, the presence of climatic stress is more obvious. Indeed, all the livelihood groups consulted during the study cited drought as the main climate hazard in the area. In Kapiri Mposhi, on the other hand, there was some variation between the different livelihood groups. Farmers reported that drought had caused major impacts on their livelihoods while beekeepers considered both drought and excessive rains to be harmful to their livelihood activity.

Farmers in Kapiri Mposhi had already been exposed to conservation farming methods that help them cope with excessive rains or dry spells. They have also already

diversified their livelihoods to beekeeping and understand the importance of forest conservation for this activity (although there is still a considerable amount of charcoal being produced in the area for sale in the capital). More systematic and consistent application of conservation farming methods, introduction of water harvesting and irrigation, better access to meteorological information and improved housing and hygiene were identified as the best options for enhancing the adaptive capacity of farmers to climate change.

In Kalobolelwa the current coping strategies used in case of drought don't provide sustainability, and ideas for alternative coping strategies were lacking. For example the community representatives couldn't consider other options for coping with poor germination of crops than replanting. For income diversification, piece work such as handicraft production or farm labouring were offered as possible short-term solutions.

On the basis of these findings, discussions with the local agricultural extension officer and the village headman suggested that the introduction of small-scale irrigation and water harvesting systems, improved extension services and weather forecast information, the introduction of conservation farming methods, gardening and multipurpose trees and improved access to markets could help people in Kalobolelwa better adapt to climate change.

IUCN's Climate Change and Development Project will respond to these adaptation needs by providing technical assistance for the implementation of some of the prioritized adaptation activities and by helping secure more funds for these efforts. In addition, collaboration with the government extension services will provide continuity for the adaptation processes and the information and experiences gained through this project will be gathered and used in policy dialogues with the Zambian government.

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