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“Reconcile land system changes
with planetary health”

An assessment of the occurrence and utilisation of crop wild relatives among smallholder farmers

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Abstract

This research, conducted in the Lukolongo area of Zambia’s Kafue district, focuses on addressing drought and food shortages by exploring the potential of crop wild relatives (CWRs), which are often drought-resistant and can serve as alternative food sources. The study, carried out between January 28 and February 20, 2024, aimed to document the presence of CWRs, assess smallholder farmers’ knowledge and utilisation patterns, and propose strategies for their sustainable use to enhance agricultural resilience.

A mixed-method approach was used to collect data from 103 respondents through surveys, observations, and literature reviews. The analysis, using descriptive statistics and frequency analysis with Excel, provided a comprehensive understanding of CWR occurrence and usage in the area. The findings revealed that CWRs were diverse, particularly during the rainy season, and demonstrated their potential to strengthen agricultural resilience. Despite farmers’ familiarity with CWRs, the study found gaps in traditional knowledge and gender disparities in their use. CWRs were valued for both food and medicinal purposes, but they were not widely integrated into agricultural practices.

The study also identified challenges to CWR utilisation, such as legal, socio-cultural, and infrastructural barriers. To promote sustainable use, the research suggested strategies like community-led conservation initiatives, educational programs, seed banks, and sustainable farming practices. The study emphasised the importance of government support, research investment, and infrastructure development to create a conducive environment for CWR utilisation.

In conclusion, the study calls for integrated approaches to enhance the sustainable use of CWRs, address knowledge gaps, promote sustainable farming, and foster collaboration between communities and governments. These efforts aim to improve agricultural resilience and food security in Lukolongo and other similar regions.

Keywords: Agricultural resilience, community conservation, crop wild relatives, food security, sustainable utilisation