

Scrutiny of Integrated Land and Water Use Management Scenarios in Lake Ziway Watershed with Main Unit of Analysis on Lake Ziway

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Given their significance in socioeconomic development, land and water resources are the most critical resources needed to support peoples' livelihoods. However, their degradation is among the many critical environmental problems in developing countries like Ethiopia. Ethiopia is gifted with several ecologically and economically important lakes, of which Lake Ziway is one of the largest in the country. This fresh-water lake provides drinking water for humans and livestock, and is a source of water both for crop irrigation (including the floriculture industry) and biological diversity. Fish productivity here is high compared to other lakes in Ethiopia. Besides the economic value, the lake also has transportation, recreational, and religious uses. However, the level and quality of the lake water are currently under great pressure due to land and water use practices on its watershed, mainly those associated with ongoing agricultural development. (The poor inhabiting the watershed are unaware of what is happening to the lake.) Thus, unless the current intensive utilization of land and water resources is properly managed in watersheds, Lake Ziway will face severe problems in the future and might become the next lake to disappear after Lake Haromaya in Eastern Ethiopia.

Accordingly, these problems call for comprehensive and participatory action to tackle the negative impacts and to ensure the sustainable use of resources. Scientific research is needed to assess and quantify the changes taking place on the Lake Ziway watershed and in the lake's water resources. It is therefore necessary to approach the problem holistically using a combination of methods and tools and by involving all stakeholders, taking into account their partnerships. This will ensure broad-based planning and management concerning the conservation and sustainable utilization of natural resources.

This research project argues that it is imperative to address the problems facing Lake Ziway and its watershed areas, and that it is the right time to do so. The project also explores stakeholders' perceptions of humans' interactions with land and water resources, and the degree to which stakeholders are involved in facilitating the wise use of Lake Ziway's resources and its watershed areas. The results of this study could be used to support the efforts currently underway by the Federal Government of Ethiopia's Ministry of Water, Irrigation and Electricity; the Ministry of Environment, Forestry and Climate Change; the Ministry of Agriculture; the Oromia bureau and the Southern Nations, Nationalities, and People's Region (SNNPR) bureau respectively; and other local and international NGOs. Involved in land and water use planning and management activities, they strive to put forward applicable management plans for the sustainable utilization of Lake Ziway's water resources and its watershed areas. The outcomes of the study would also help strengthen society's knowledge about environmental issues, including the long-term conservation of Lake Ziway and other Ethiopian lakes.