



## **Natural resources and their prospects in the closed basins of rift valley marginal grabens in northern Ethiopia**

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With increasing population, producing more food and fibers has led to an expansion of the area under cultivation. For this, much attention is given to low-lying flat areas in search of suitable agricultural lands. The objectives of this paper are therefore: (1) to review the opportunities and challenges of natural resources in the marginal grabens for rural development; (2) to highlight the knowledge gaps and priorities in research and development in the marginal grabens, and (3) to supplement the literature review through repeat transect walks, focus group discussions and interviews across the western rift valley of northern Ethiopia. The paper shows that marginal grabens along the rift valleys are rich both in blue and green water resources due to their topographical and geological characteristics. Spate irrigation has been a growing water management practice to respond to soil moisture deficit. Besides, marginal grabens are fertile plains as a result of alluvial deposition that could be suitable for agricultural development. However, rainfall variability and groundwater withdrawal lead to graben basin closure and salinization. Notably, riverbed incisions and sediment deposition affects drainage systems and water supply in the marginal grabens. As a result, socioeconomic and natural capital of the marginal graben farmers are continuously threatened. Thus, the benefits of natural resources for rural development in the marginal grabens along the rift valley can be optimized if the current bottlenecks are converted into opportunities. A better understanding of the complex marginal graben system via a robust land evaluation framework will improve livelihoods of the communities that live in the (closed) marginal grabens.

Keywords: population pressure, marginal grabens, endorheic lakes, salinization, Ethiopia