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“Reconcile land system changes
with planetary health”

Mainstreaming biodiversity into agricultural and rural development: the case of mozambique

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Abstract

Biodiversity is suffering significant declines around the world, jeopardising the ability of ecosystems to provide relevant services. On the other hand, food insecurity and poverty have been increasing, especially in developing countries. Mozambique is a biodiversity-rich country, with a wide variety of ecosystems. Nevertheless, it is considered one of the poorest countries in the world, with high levels of food insecurity. Agriculture is the main economic sector with 68 % of the population dependent on natural resources for their livelihoods; being agriculture the main driver of biodiversity loss. On the other hand, biodiversity contributes to maintaining ecosystem services that are locally useful for agriculture and to the well-being of the population. Therefore, the agricultural sector is key to tackling major sustainability and societal challenges. Nevertheless, public policies aimed at addressing these issues have often revealed to be inadequate. The effective achievement of environmental (biodiversity conservation) and social (agricultural and rural development, including food security and poverty alleviation) objectives depends on recognising and addressing socio-ecological diversity. Mozambique, as many other developing countries, is very heterogeneous in terms of the biodiversity for conservation and the socio-economic and agro-ecological factors that condition agricultural and rural development. Therefore, to be effective, the strategy needs to be adjusted and respond to challenges and factors of the local socio-ecological context. In this regard, this research aims at proposing a Regional Reference Framework (RRF) for policymakers, which include a map of SocioEcologically Homogeneous Regions (SEHR), with similar characteristics in terms of biophysical, vegetation and biodiversity patterns, human pressure on ecosystems, food insecurity and poverty levels. The RRF allows the design of effective and appropriate policies for mainstreaming biodiversity into the agricultural sector, tailored for each socioecological context. 21 SEHR were identified and characterised. Based on the framework proposed it was possible to understand how climate and population scenarios would affect environmental and societal goals. The proposed approach highlights the need to understand the trade-offs and complementarities between biodiversity conservation and agricultural development, as well as linking the national policy framework with the local socio-ecological context, based on an inclusive and participatory development of local strategies.

Keywords: Agricultural development, biodiversity, developing countries , local context, regionalisation, socioecological diversity