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## Participatory Scenario Planning Addressing Uncertainty of Demographic Change in Rural Communities of North-West Ethiopia

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### Abstract

One of the overriding objectives of development is to improve the quality of life of the people. Information about the future population development is key for rural planning decisions relating to infrastructure, land use, land reforms or social service provision. However, in contexts of huge data gaps and low data quality, missing and contradicting knowledge on drivers of change, such as in many developing countries like Ethiopia, the population projections are confronted with much uncertainty. Furthermore, national projections are unrepresentative to smaller geographic scales of rural communities. In such a situation the authors argue that, application of participatory scenario planning as part of trans-disciplinary research methods, can support the inter-subjective definition of assumptions needed for the quantitative calculation of population projections for rural communities. The approach was successfully tested in three rural study sites in North-West Ethiopia. We present four plausible qualitative scenarios for the demographic development until 2030, were again validated by the members of the rural communities to support the associated underlying assumptions for quantitative demographic projections. The authors concluded that the participatory scenario process captured and integrated contextual knowledge for the demographic assumptions and resulted in more context-specific projections. The collaborative work on the local drives of demographic change between science and society furthermore provided a valuable space for social learning among the local communities on how their decisions, norms and behaviour will drive the demographic dynamics. So that local stakeholders could identify the need for and scope of local mitigation or adaptation measures to demographic change.

**Keywords:** Ethiopia, participatory research, population projection, rural population change, scenarios, uncertainty