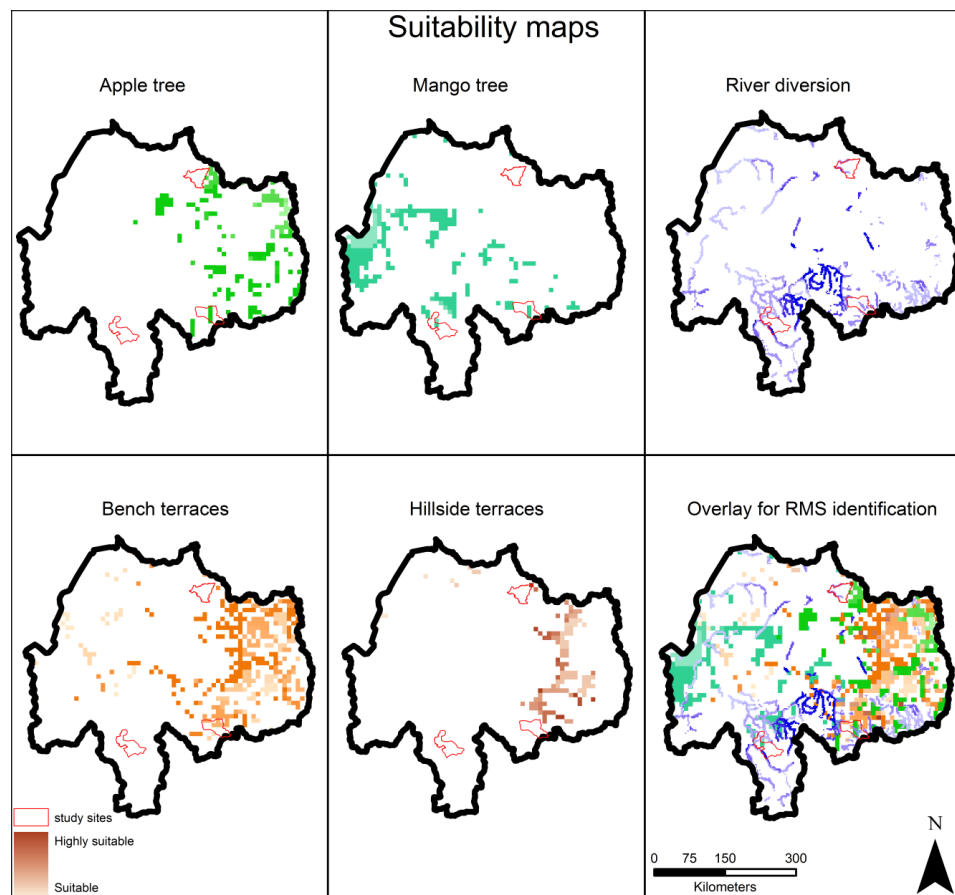# Mapping rainwater management strategies at landscape scale

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Key Message

A mapping procedure that allows to identify landscapes where a given rainwater management strategy is suitable is presented. Bio-physical and socio-economic data are combined into suitability maps.

Summary

A rainwater management strategy at landscape scale is a bundle of practices chosen across the gradient of a landscape to maximize a certain objective, e.g. water retention within the watershed. This paper presents a mapping procedure that allows for the identification of landscapes where a given rainwater management strategy is suitable. The approach predicts that for each practice that is part of a strategy, feasibility critera can be identified and mapped. Both bio-physical and socio-economic criteria are included and implemented as either a 'killer' or 'soft' criterion. Killer criteria represent necessary conditions without which a practice can/will not occur. They are modelled as binary maps. Soft criteria represent drivers which increase or decrease the willingess of adoption of a practice. They are implemented as normalized variables ranging between 0 and 1. In a way they represent a probability. The combination of these two criteria results in suitability maps that show the gradient of suitability. When different practices are overlayed with a landscape map, landscapes within which the rainwater management strategy is suitable can be identified. This approach has been applied to the Blue Nile basin in the Ethiopian highlands for the strategy "orchard-terracing-river diversion". For this first suitability maps, quatenary watersheds have been used as landscape. Results show that watersheds in the eastern part of the Blue Nile basin are suitable for the "orchard-terracing-river diversion" strategy.