



# IUFRO FOREST ENVIRONMENT DIV 8 CONFERENCE 2023

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## Book of Abstracts

## **OC 2.8 Priority areas identification and management strategies for landscape forest restoration in Mozambique**

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In the last decades, Forest Landscape Restoration (FLR) emerged as a solution to restore ecological integrity while enhancing human well-being in deforested or degraded forest landscape. One key challenge in implementing FLR includes the identification of suitable intervention areas according to the restoration strategy (active or passive restoration) and the local socio-bioophysical constraints. The aim of this study was to develop a new approach to locate where forest landscape restoration would enhance multiple ecosystem functions and identified management strategies (passive or active restoration) in two districts in central Mozambique. The methodology involved (i) the ecosystem functions mapping to identify multifunctional hotspot and (ii) the assessment of the land-use history to differentiate areas with low or high regeneration potential. We derived three spatially-explicit ecosystem functions (biomass, soil carbon sequestration potential and forest connectivity) and one characteristic (woody species diversity potential) based on field inventory. We mapped and analyzed land-use history, defined by the current fallow age, the time since the first forest clearcutting and the number of crop-fallow cycles. The results showed that 118,629 ha were identified as priority areas (10.9% of the study area) for forest landscape restoration, with 42,255 ha (36%) with natural regeneration potential and 76,373 ha (64%) with low regeneration potential and would require human activities to recover ecosystem functionality and ability to provide ecosystem services. This study provides new insights for integrating ecosystem functions at landscape scale to support decision making for forest restoration and support the Mozambican government commitments to restore degraded landscapes at national scale.