

## LOCAL COMMUNITY PARTICIPATION IN THE DELIMITATION OF CONSERVATION AREA AND MAPPING OF SITES OF TOURISM INTEREST: THE CASE OF MOUNT MABU

### INTRODUCTION

Mozambique has established a network of conservation areas to protect its rich biodiversity. The current network covers **26%** of the country territory. However, the creation and management of conservation areas has historically been top-down, often excluding local communities in decision making regarding the delineation of conservation area boundaries and the prescription of management actions. This has led to land use conflicts between local communities and conservation authorities, and failure of conservation efforts. The long-term success of conservation initiatives requires **active participation** of local communities, to mitigate conflicts, build trust, create ownership and support to the initiatives.

The **Mount Mabu** in Mozambique is covered by an extensive old-growth rainforest of global significance for biodiversity conservation due to its high diversity and endemism of flora and fauna species. It covers approximately 7,000 hectares and is considered the largest medium-altitude (800 – 1400 m) rainforest in Southern Africa. Nevertheless, it lacks formal protection status and, in the slopes of Mount Mabu the rainforest is threatened by the encroachment of human activities such as subsistence slash and burn agriculture, poaching for bush meat and uncontrolled fires from local communities. This calls for the need of **conservation actions**, to prevent the expansion of anthropogenic threats.

In this case study we document the **participation of local communities** in the demarcation of an area for proclamation as conservation area to conserve the rainforest and associated ecosystem services, without affecting the access to land and natural resources for the subsistence of local communities who depend on the forest. The study also reports the participation of the community in the inventory and mapping of sites that can be used as attractions for the development of ecotourism, the main potential economic activity to diversify the sources of income for local communities. These activities are part of the project to support biodiversity conservation and community development in Mount Mabu implemented by the consortium **WWF-ReGeCom-RADEZA** from 2021 - 2025, as a component of the **PROMOVE Biodiversidade** programme, funded by the European Union.

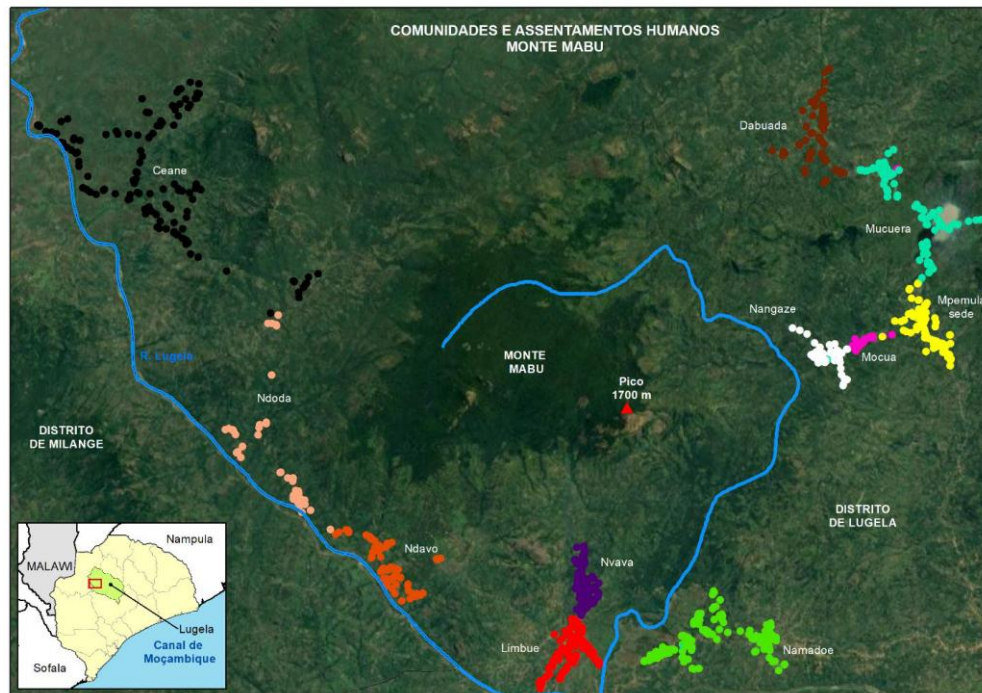
### STUDY AREA

Mount Mabu is located in the Administrative Posts of Tacuane and Muabanama, Lugela district, Zambezia province in central Mozambique. The Mount is surrounded by **11 communities**, with a total population of

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13,679 inhabitants. Of the 11 Communities, only 4 have a direct border with the proposed conservation area.



*Figure 1: Location of communities and settlements around Mount Mabu*

## METHODS

The consortium WWF-ReGeCom-RADEZA introduced a **community governance approach** to create community ownership of conservation and livelihood development initiatives and engage the community in decision making.

Community delimitation of conservation area: In each of the 11 communities, two community facilitators (one women and one man) were selected and, together with community leaders, were trained and sensitized on forest conservation matters. This group of 22 facilitators played a key role in disseminating the environmental and socioeconomic benefits of conservation and in sensitizing the community for the prevention and combat to threats to the Mount Mabu rainforest. Subsequently, **community natural resource management committees** (CGRN) were created in all communities, each composed by 10 members, for a total of 110 CGRN members (40 women and 70 men). CGRN members were trained and engaged in building community awareness on the linkages between conservation and community development. Through community facilitators, CGRN members, community leaders and local and district Government authorities, wide community consultations that reached about **95% of the households** were

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undertaken to get community buy-in for the creation of a conservation area in Mount Mabu. An association, **ConservaMabu**, was created and trained, composed by representatives from the 11 CGRN, to lead the management of the conservation areas after its formal proclamation.



*Figure 2: Community consultation meeting led by District Government, community leaders, facilitators and CGRN members, to define the limits and the management category of the Mount Mabu conservation area*

For four communities adjacent to the Mount Mabu (**Nvava**, **Nangaze**, **Ndoda** and **Ndavo**), cartographic maps were developed, and the boundaries of each community were georeferenced, with full participation of community facilitators, CGRN members and community leaders. Each community proposed a section of its land to be integrated in the conservation area and, by walking through the forest, the boundaries of the land for conservation were georeferenced (*Figure 3*).



*Figure 3: Geo-referencing of conservation area boundaries by community facilitators and CGRN members*



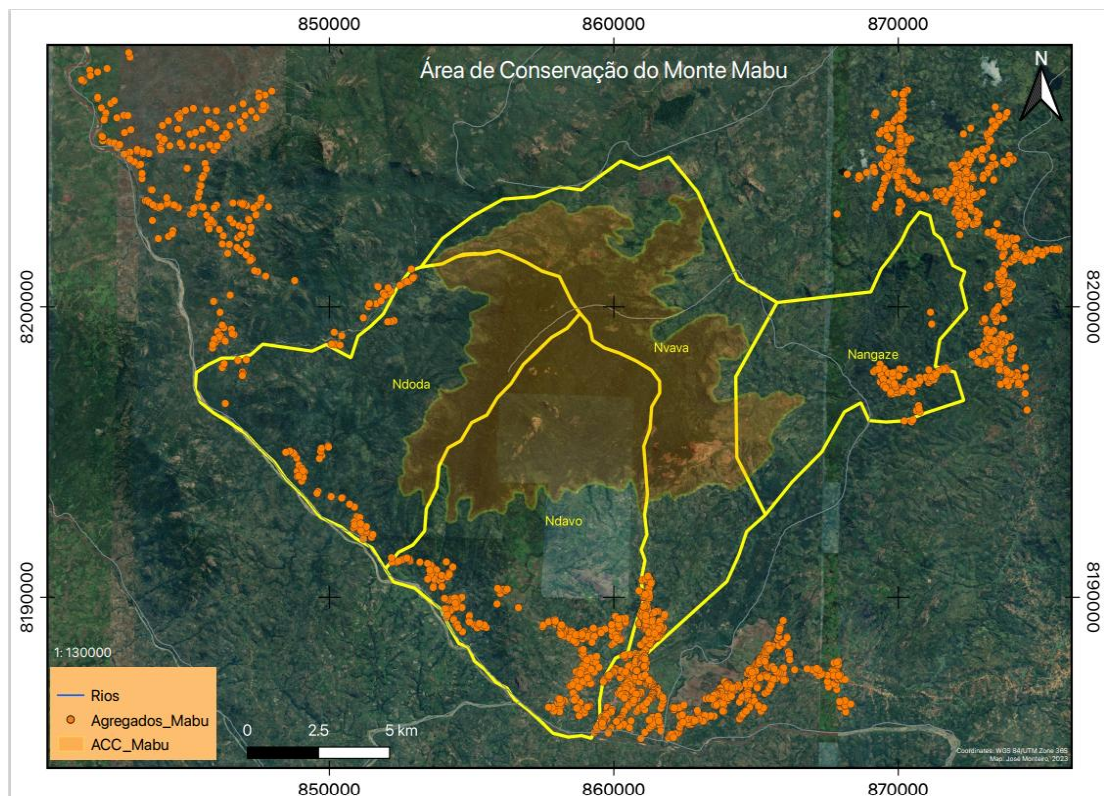
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Participatory Inventory and Mapping of Sites of Tourism Interest: For the identification of **sustainable livelihood initiatives**, 22 community facilitators were trained and provided with equipment (tablets and cellular phones) and software to record and map sites of interest such as tourism attractions or for the development of other nature-based business such as extraction and bottling of spring water.

## RESULTS

Community delimitation of conservation area: 9,300 ha of rainforest covering land of four communities (Nvava, Nangaze, Ndoda and Ndavo) were demarcated (*Figure 4*). The demarcation maps are part of the documentation submitted to the **National Administration of Conservation Area (ANAC)** for formal designation of **Mount Mabu Community Conservation Area (MMCA)**. The creation of this conservation area will increase the representation of Afromontane forests in the current Mozambique's conservation areas network. With the exception of Chimanimani and Gorongosa, the Afromontane forests are currently not under formal protection status but are mapped as **Key Biodiversity Areas (KBAs)**. The creation of the MMCA will also improve equity in the governance of conservation areas management in Mozambique, by expanding the number of areas managed by local communities.

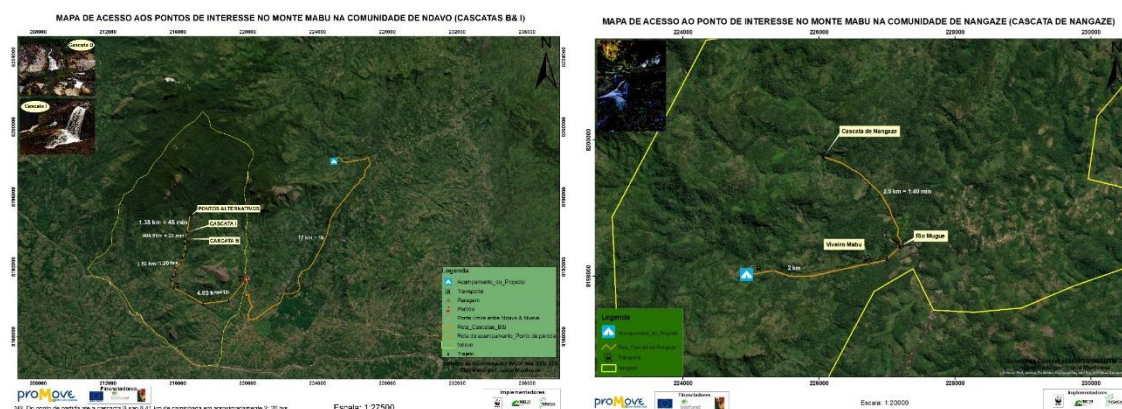


*Figure 4: Boundaries of adjacent communities (yellow line) and demarcated Mount Mabu conservation area (brown area)*

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Participatory Inventory and Mapping of Sites of Tourism Interest: About 250 sites of touristic, cultural, and socio-economic interest, including waterfalls, water springs, sacred sites, and unique biodiversity zones were identified and mapped using a community-driven approach (*Figure 5*). The results of this exercise will be used to inform and plan the design of ecotourism routes and the development of other livelihood activities dependent on the ecosystem services provided by the rainforest of Mount Mabu, to reduce dependence on extractive use of forest resources.



*Figure 5: Waterfalls inventoried and mapped with active participation of community facilitators and CGRN in Ndavo and Nangaze community*

## BEST PRACTICES

The Consortium WWF-ReGeCom-RADEZA adopted practices that created an enabling environment for community participation in the demarcation of the MMCA and in mapping sites of tourism interest, including the following:

- **Participatory approach for community organization and training on natural resource governance:** It fostered local ownership of conservation and livelihood development initiatives, valued traditional knowledge, built community capacity and devolved decision making power to local communities for the protection of the environment and development of sustainable livelihoods. The resulting community buy-in and support enhance the effectiveness and efficiency of conservation efforts and the sustainability of the outcomes, because community members understand the local environment and have the incentive and willingness to explore opportunities to make use of the environment to develop livelihoods, for example, through ecotourism activities along the mapped routes. By building trust, this approach reduces conflicts between local people and conservation authorities.

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- **Social inclusion, including gender equality and women's empowerment throughout the process:** This approach allowed equitable access to capacity building opportunities and to nature-based development opportunities to all social segments of the community, including women, youth, the elderly and persons with disabilities. Empowering and assigning decision-making responsibilities to women reduces socioeconomic vulnerabilities in the community because women are the most affected by environmental degradation and depletion of natural resources.

## CHALLENGES

The **participatory demarcation** of the MMCA is a major conservation outcome of the PROMOVE Biodiversidade programme. However, several factors delayed the progress for this achievement:

- **Long time required to build trust and attain community buy-in and genuine community participation in biodiversity conservation:** By their nature, participatory process for biodiversity conservation are slow, particularly in areas where the community depends almost exclusively on extractive uses of natural resources for livelihood. Difficult terrain, inadequate access roads, long distance between communities and households, and frequent rains, extended the time required to complete the creation and capacity building of community governance structures, and demarcation of the MMCA. As a consequence, although the proposal had been submitted, by the end of the initially planned duration of the PROMOVE Biodiversidade Programme, the creation of the MMCA had not been approved by the Government. This suggests that planning, creating and establishing community capacity for the management of conservation areas might require more time than the average of 3-5 years duration of donor funded projects.
- **Lack of alternative sources of subsistence and income to the use of natural resources:** Although community members have ownership and support the conservation of the rainforest, the lack of benefits from conservation or from any other sustainable alternative source of livelihood may reduce trust and support and natural resource use practices that degrade the environment might resume.
- **Weak capacity of community organizations to make decisions on conservation and livelihood development:** Despite the progress made in organizing and building the capacity of the community to make decisions for conservation and livelihood development, due to low level of literacy and lack of previous exposure on conservation initiatives, the capacity remains weak. This requires continuous capacity-building and support to manage the MMCA and pass the knowledge to new generations.

## CONCLUSION

Through a **community participatory approach**, 9,300 ha of rainforest were delineated for proclamation as conservation area and more than 250 sites of tourism and sociocultural interest were identified and mapped. This case study underscores the relevance of integrating **traditional** with **scientific** knowledge in the delimitation, creation and management of conservation areas and in planning the development of community livelihoods. This innovative approach creates the basis for sustainability of conservation outcomes by reducing land use conflicts, raising awareness of the importance of conservation, building capacity and creating community ownership of conservation and livelihood development initiatives. The positive results achieved through participatory mechanisms need to be reinforced by the creation of livelihoods benefits through activities such as **ecotourism**, **sustainable agriculture**, **beekeeping**, **sustainable use of water springs** and other economic opportunities, to build trust and commitment that may support conservation goals.