



## TERMS OF REFERENCE FOR THE WATER MANAGEMENT STUDY ADPP PRODUCERS CLUB – TETE (SUSTAIN-AFRICA)

### Water Management Study

#### 1. Objective

ADPP- Mozambique is commissioning a consultancy to carry out a water management study for Producer Club Project as part of the SUSTAIN-Africa program in the Zambezi Corridor in Mozambique.

#### 2. Background

ADPP is implementing a 36 month project to support producers in Tete to increase food security, income and resilience to climate change in partnership with MICAIA and sponsorship of IUCN under the IUCN Global Water Program.

IUCN Global Water Program coordinates the Sustainability and Inclusion Strategy for Growth Corridors in Africa (SUSTAIN Africa) program. SUSTAIN Africa is a 10 year programme, funded by the Netherlands Ministry of Foreign Affairs aiming to promote inclusive, green growth in two African growth corridors; the SAGCOT corridor in Tanzania and the Beira corridor in Mozambique.

#### 3. Rationale and Vision of SUSTAIN

In order to generate jobs, increase public revenue, expand social services and ultimately reduce poverty, African countries are focusing on and promoting investments in 'growth corridors'. Growth corridors are areas of intensive economic growth, where development of natural-resource based industries – such as agriculture and mining – are being prioritised because of their potential to catalyse rapid economic growth. Finding and implementing solutions in African growth corridors that achieve the ambitions of a climate-resilient, green economy will require close partnerships among the public and private sectors and rural communities. These partnerships will have to ensure that investments flowing into growth corridors include solutions for the sustainability of water, land and ecosystems that are socially inclusive and build resilience to climate change. To address this need, IUCN has initiated implementation of a Sustainability and Inclusion Strategy for Growth Corridors in Africa (SUSTAIN-Africa).

SUSTAIN-Africa will increase knowledge, skills and capacities in communities, business and governments on water, land and ecosystem management for climate resilient water and food security. It will be a basis for learning, evidence and policy innovation that IUCN, IUCN NL, IUCN's Members and partners in the private sector will use to increase the sustainability and inclusiveness of growth corridors as they are developing across Africa.

SUSTAIN works at different levels to influence change: at the landscape and district or districts levels within growth corridors, at the growth corridor level, at the national level, and finally at the regional and Africa-wide level.

## 4. SUSTAIN in Mozambique

SUSTAIN-Africa is working in Mozambique with ADPP in the Zambezi Valley corridor, to develop agricultural and nature-based value chains with communities and farmers particularly in the Cahora Bassa, Magoé and Marara districts. By working at landscape-level, SUSTAIN helps communities, government and business to improve water management and climate change adaptation while supporting, community-based eco-tourism and wildlife management, especially in the new Magoé National Park.

## 5. The landscape unit approach

The project is using the landscape unit approach which is a coordination mechanism where a number of partners in a given geographical area have concurrent and interlinked interest which contribute for the achievement of the project outcome. This interest driven approach ensures that the main need and potentialities for the development of that portion of landscape, being at small holder's level or at district government level are addressed through matchmaking with potential investment, finance or partnerships.

The mechanism allows for coordinated actions, joint planning, strengthening the mutual accountability of results, strengthening evidence based results, better knowledge of interest of actors which allows synergies. Especially after mapping all the interest (water, ecosystems, business, etc) and needs in the Landscape unit. These mappings will allow the prioritization of actions/focal areas that will enable early markers of change, used to motivate and encourage other stakeholders to also move towards a more interest driven approach.

Such mechanism will bring together the communities, local governments, private and public sectors that have direct relevant contribution in the implementation of the project; and will be driven by mutual agreement based in concurrent interest, being this the key factor that will ensure that results and impacts are sustained beyond the lifespan of the project.

In the Zambezi corridor two units have been chosen and they are the Cahora Bassa/Magoé Unit and the Marara unit and the characteristics of the two follows:

### 5.1 The Marara unit

The Marara Unit is located in Marara district. The main characteristics of this Unit are extremely high temperatures, severe drought and reduced vegetation cover as a result of low rainfall. Water scarcity is a big issue as the small rivers dry out immediately after the offset of the rainy season, and the existing small dam loose water due to high evaporation rate.

The Unit has tremendous potential for livestock production and horticulture is produced seasonally in few favourable production areas. Non-timber forest products such as honey and baobab are also produced in selected sites. SUSTAIN project is currently promoting activities towards maximising the existing potentialities, even if the early markers of change coming from this region reveal a slower pace when compared to the Cahora Bassa/Magoé Landscape Unit

### 5.2 The Cahora Bassa/Mágoè unit

The Cahora Bassa/Magoé Unit is located in the districts of Cahora Bassa and Magoé. The climatic conditions are somewhat similar to the ones found in Marara, however, the 270 km long Cahora Bassa Lake extends throughout the entire Unit which does not put the unit in the same kind of water scarcity situation as Marara. Another main potentiality and characteristic of this Unit is the existence of the Magoé National Park covering a total area of 3.558,520 km<sup>2</sup>, part of the Cahora Bassa Lake is within the central and buffer zone of the Magoé National Park (MNP).

The Unit has potential for conservation, tourism, fisheries and agriculture, also the non-timber forest Products that include honey, baobab, and that are recognized to be one of the strategies

to promote rational forestry management. Besides promoting the use of these potentialities, SUSTAIN project also carries out sensitisation campaigns for natural resources management.

## 6. Main purpose of the study

SUSTAIN Africa has begun on-the-ground implementation in the Zambezi Corridor. In order to increase the overall resilience of the area one of the sub-components of this project is to improve water security: *Improve water resource management and water security in the 3 target districts of the project, through joint action of communities and stakeholders, with benefits for livelihoods, production, health and ecosystems.*

In order to achieve this the study should investigate appropriate ways of improving water resource management and water security in the three target districts of the project.

## 7. Approach

The study should investigate different techniques to improve the water security of the target districts and their respective advantages/disadvantages and associated construction/maintenance costs. As the landscape is widespread and have a lot of different features appropriate techniques needs to be recommended separately for parts of the landscape based on their particular landscape features:

- Close proximity to all-year flowing rivers
- Close proximity to ephemeral rivers (seasonal)
- No proximity to rivers or water bodies
- Etc

A special focus should be put on investigating the suitability of building sand dams (see annex 1). It should be noted that after a few failed examples of building water storage dams in the district, the district technicians see building dams as a no-go alternative. However, the project sees sand dams as a potentially positive solution and therefore this needs to be investigated thoroughly to make sure if this is an appropriate technique or not in the target districts.

Special focus should also be put on how rainwater harvesting techniques can be used to improve the available water storage in the districts and especially in areas with no proximity to rivers. Innovative and/or low-cost techniques are especially encouraged.

Finally, for each landscape unit suggest a model for implementation of the best found practice for improved water security. This model should be generic enough to be suitable for duplication in several places in the landscape unit and it should also include approximated construction and maintenance costs.

## 8. Deliverables

The consultancy will deliver:

1. A water management study report with the following content
  - a. Overall hydrological situation in the districts/landscapes
  - b. Predictions for future hydrological situation in terms of climate change
  - c. Recommended techniques/models to improve the water security in the districts with associated advantages/disadvantages and approximated construction/maintenance costs.
  - d. Concluding recommendations which techniques/models that are most appropriate for which landscape feature.
  - e. Strategies conducive to ecosystem restoration and climate change management that aid water availability

- f. Presentation of a suggested models for implementation of the best found practice for improved water security in each district (one model each for the two landscape units).
2. The consultant will present the result of the report in a meeting during with ADPP, IUCN and other stakeholders.

## 9. Required competencies, skills & experience

The proposed consultant(s) must have the following qualifications

- Graduate degree in water management or natural resources management , agronomy, conservation science, or social science applied to sustainable development policy and practice
- Agriculture, Forest, and Water expertise
- Profound knowledge of the landscape (having done related work in the landscape will be an advantage)
- Expertise in the application and use of project monitoring, evaluation and learning methods
- Experience in hydrological studies, water management studies or similar
- Proven relevant experience record
- Solid methodological and analytical research skills (quantitative & qualitative analysis)
- Fluency in English and in Portuguese
- Ability to write clearly and concisely in English, including the ability to communicate technical study findings to a non-technical audience.

## 10. Reporting

The Report and documentation should be written in Portuguese or English with an extended Executive Summary, and submitted as electronic copies. The consultant will report to Jose Chiburre, [chiburrejose@gmail.com](mailto:chiburrejose@gmail.com), Regular check-ins and updates will be conducted with Jose Chiburre, beginning at the latest one week after the start of work. A draft report will be submitted for comment by the SUSTAIN management team prior to finalization. A final report will be submitted and followed by a plenary presentation.

## 11. Expressions of interest

Those interested in the consultancy must include in their application the following components:

### Technical

- Technical Proposal, including preliminary details of the proposed methodology, study design; major stages and workplan
- CVs of team members, including relevant studies carried out by each member of the team
- Three (3) references whom we can contact.

### Financial

- Financial Proposal (Budget ceiling **25.000 EUR**)

Applications can be sent to:

Applications and questions can be sent to José Chiburre at [chiburrejose@gmail.com](mailto:chiburrejose@gmail.com) and Sérgio Muchanga at [sergio.muchanga@adpp-mozambique.org](mailto:sergio.muchanga@adpp-mozambique.org)

The deadline for submission of interest is 25<sup>th</sup> June **2018**.