

**Commissioned by:** UN Environment, CTCN, Adaptation Fund

**Project Title:** Implementation of Water-Food-Energy nexus using digital technologies for local communities in Mozambique

**Proposed by:** Agência de Desenvolvimento do Vale do Zambeze & Ministry of Science and Technology and High Education

**Implemented by:** HUB & Practica

**Country:** Mozambique

**Deliverable:** 1.1 Stakeholder mapping report



Implementation of Water-Food-Energy nexus using digital technologies for local communities in Mozambique

## **Stakeholder mapping report**

May 2024

This project has been proposed by Agência de desenvolvimento do Vale do Zambeze.



With the support of the Ministry of Science and Technology and High Education



Implemented by PRACTICA & HUB



Commissioned by UN Environment, CTCN, Adaptation Fund



Disclaimer

This document is an output of the Technical Assistance Response in Mozambique. The present report is the output of the project 'Implementation of Water-Food-Energy nexus using digital technologies for local communities in Mozambique'. The views and information contained herein are a product of the international TA implementation team led by PRACTICA & HUB.

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## 1. Introduction

This report is part of the deliverables for the project *Implementation of Water-Food-Energy nexus using digital technologies for local communities in Mozambique* project implemented by the consortium PRACTICA and HUB. The overall objective of the project is to develop a fit-for-purpose system for one selected farm in the Zambezi Valley in Mozambique that will include aquaponics, biogas, bio composting, and hydraulic management systems (including water storage and solar pumping integrated systems for drip irrigation).

This report presents the methodology followed to identify and map all the relevant stakeholders for the project using the identification, analysis, and mapping methodology. Providing the foundations for selecting the most pertinent actors that can steer different mechanisms to bring the project to a good end. The restrictive working group was selected from the stakeholder mapping to up to 8 persons. Of particular importance to both Practica and HUB during the stakeholders mapping was to consult the leading project proponents, i.e., Agencia de Desenvolvimento do Vale do Zambeze (ADVZ). It was relevant to have these proponents assist with the engagement of critical organizations to implement this project successfully.

## 2. Methodology

The methodology followed to conduct the stakeholder mapping consists of the following steps:

1. *Identification*: At this stage, in coordination with ADVZ, potential institutions and organizations of interest were identified, i.e. those whose strategic plans are aligned with and respond to the project's objectives.
2. *Listing of relevant actors*: After the identification, the ADVZ, in coordination with the Ministry of Science, Technology and High Education, and HUB, have listed the potential actors working or with action related to the integrated production system of Water-Food-energy nexus using digital technologies along the three target provinces, creating a visual representation stakeholders, since the site for the project has not yet been selected.
3. *Analysis*: Through recognized tools, such as the Importance-Influence matrix, supported with semi-structured interviews, the analysis allows for the comparison of the interests, levels of importance, and influences of each stakeholder regarding the implementation of the project.
4. *Mapping*: Allows the visualization of the relationships between the stakeholders to support identifying relevant stakeholders to be invited to the working group.
5. *Selection of working group*: Based on the analysis outputs and the stakeholders' mapping. The working group meeting for the establishment will occur in June-July, in Tete.

While conducting these steps, it was essential to pay attention to the relationships, the sphere of influence and the capacity levels of the various stakeholders. Intersectional aspects include

gender, age, health status, level of education, geographical location, and access to essential services and information.

### 3. Stakeholder analysis

#### 3.1 Identification of Stakeholders

The identification step began with determining which stakeholders might be interested in participating in the sessions for this technical assistance. An identification survey was developed (Annex 1) and shared amongst different stakeholders to help justify their importance in the project. According to the consultation carried out in coordination with project proponents, the following potential stakeholders have been identified:

1. Ministry of Agriculture and Rural Development
3. Ministry of Gender, Children and Social Action (MGCAS);
4. Ministry of Land and Environment ;
5. Provincial Service of Economic Activities (SPAЕ's);
6. Higher Polytechnic Institute of Manica (ISPM);
7. Unizambeze- Zambeze University;
8. União Provincial de Camponeses;
9. Investigation and technologies transfers Center for Community development (CITT's);
10. District Service of Economic Activities (SDAE's);
11. Instituto de Investigação Agrária de Moçambique (IIAM);
13. International Nongovernmental organization-Technoserve Mozambique;
14. Financial institutions that provide microcredits for development- Grupo GAPI
15. Banco Nacional de Investimento (BNI)

#### 3.2 Analysis

Once the first analysis was done to pre-select relevant stakeholders, semi-structured interviews were conducted to assess each stakeholder's interest, level of importance and influence regarding the project to be implemented; see results in Table 1.

Table 1. Stakeholder's analysis.

Stakeholder	Brief description	Interest in the project	Level of influence	Level of importance	Role and type of engagement
Ministry of Agriculture and Rural Development (Ministério da Agricultura e Desenvolvimento Rural)	Institution responsible for promoting agricultural production and related activities to satisfy consumption, marketing, agro-industrialization and competitiveness of agricultural products. Promoting sustainable development through the administration, management, protection, conservation and rational use of resources essential to agriculture and food security.	Medium  The agricultural ministry oversees the development of policies and programmes that directly influence the activities of smallholder farmers in the country.	High  The ministry draws up policies and regulations and coordinates activities in the agricultural sector	Low	Keep informed Continuous engagement
Ministry of Gender, Children and Social Action (MGCAS)	The MGCAS is the federal organization overseeing the development of policy and structures in Mozambique to ensure the full empowerment and involvement of women and youth in the development agenda of Mozambique. Under the government's principles, objectives, policies and priorities, it directs and coordinates the implementation of gender, child, and social action policies in the country.	Low  The interest of the MGCAS would be to learn from the leading is to learn from the direct contact with the collaborate directly with the leading Gender Expert (HUB) to ensure that the approach taken for this technical assistance adheres to the requirement to target and engage women smallholder farmers. The general approach to engagement with women irrigators (e.g., FGs) will also be led and designed in consultation with this ministry.	Low  The ministry draws up policies and regulations and coordinates activities in different sectors, not only agriculture.	Medium	Keep informed Continuous engagement

Ministry of Land and Environment;	A governmental entity that promotes and implements development policies and programs that guarantee environmental quality, resilience to climate change and the sustainable use of natural resources in Mozambique. Ensuring the execution of policies in the administration and management of Land, Forests and Wildlife, Environment, Climate Change and Conservation Areas.	Medium  The ministry is committed to promoting agro-sustainable techniques for a healthy environment. With a focus on increasing the resilience to climate change to mitigate the consequences, the country is already suffering from droughts and floods. This TA aims to provide real solutions for smallholder farmers.	Low  The ministry oversees the implementation of projects that focus on restoring degraded agro-systems. Towards improving food security, resilience to climate change adaptation and mitigation.	Low  Once the technologies have been piloted, they can take the lessons learned and include the knowledge in the ministry's sectoral planning. However, on this point, their interest in this specific TA remains low.	Keep informed, continuous engagement
Provincial Service of Economic Activities (SPAЕ's)	A governmental entity with the mandate to regulate and oversee the execution of economic activities at the provincial level, including agriculture and livestock production.	Medium  SPAЕs coordinate directly with private organizations in the primary and secondary sectors, with a main focus on the promotion of long-term investments that boost the development of the provinces.	High  The organization's mandate is to promote commercial activities and support the feasibility of activities to intensify production and trade, collaborating with the most diverse agri-sector production, irrigation and market linkage projects.	High  The institution oversees the SDAЕs that work directly with the farmers/beneficiaries of the project and monitors activities related to agriculture, livestock, the fishing industry, and commerce.  The project results are, therefore, expected to contribute significantly to their strategic planning.	Keep engaged

Higher Polytechnic Institute of Manica (ISPM)	Mozambique's public higher education institution in the province of Manica currently offers vocational training in agriculture, economics, management and tourism.	Medium  With its experience and qualified technical experts, its involvement can provide strategic support in the design of the technological packages for implementing climate-smart agriculture practices.	Medium  If engaged correctly, it can potentially attract funds to implement the pilot production system once this TA ends.	High  The organization has long-term experience in the exact locations of the project and is very well known among the target group of this TA.	Keep close; continuous involvement through planning and consultation
Zambeze University (Unizambeze)	A local university that focuses on training highly qualified professionals in Environmental and Natural Resources Engineering, Agricultural Sciences and Agronomic and Forestry Engineering, with offices scattered throughout the Beira Corridor and Zambezi Valley region.	High  With its experience and qualified technical experts, its involvement can provide strategic support in the design of the technological packages for implementing climate-smart agriculture practices.	Medium  Potential to attract funds to implement the production-integrated system.	High  The organization has long-term experience in the exact locations of the project and is very well known among the target group of this TA.	Keep close; Continuous involvement through planning and consultation
União Provincial de Camponeses (UPCT)	UPCT is a nongovernmental organisation that defends smallholder farmers and their common interests and rights. UPCT promotes democratic participation and inclusive development by disseminating new technologies increasing income for women and men.	High  There are around 4,433 members, of whom 1,883 are women and 2,550 are men. If done correctly, they can benefit from the capacity building and knowledge built around this project. Some of these will be direct beneficiaries of the project.	High  The organization is well respected among the smallholder farmers. Having buy-in from UPCT will facilitate the discussions and input from the actual users of the system that will be designed under this TA.	High  The organisation is interested in improving the capacities of its staff to support the implementation of technologies that increase smallholder farmers' income.	Keep close and Continuous involvement through planning and consultation
Investigation and technologies transfer Center for Community	The Centre for Research and Technology Transfer for Community Development aims to guarantee the sharing and appropriateness of scientific, technological and	High  Their interest remains in learning new climate-innovative agriculture	High  The institute has a knowledgeable and experienced staff that	High  Support project in the design of adequate	Working group Keep close and Continuous involvement

development (CTTI's)	innovative knowledge for sustainable community development.	technologies that will improve the capacities of smallholder farmers. They can use this knowledge in the future to execute scientific and technological research programmes that solve real community problems.	can provide strategic support for selecting technologies and guidance on engaging and sharing knowledge with smallholder farmers.	technological packages for the implementation of SMART agriculture.	through planning and consultation
Extension agricultural support from SDAE (Serviço Distrital de Actividades Económicas)	The public entity responsible for managing and monitoring Agriculture, Livestock, Commerce and Industry at the district level. Extension agricultural workers directly provide agricultural technical support to the smallholder farmers within their district.	Medium  This branch of the government can influence local adoption and follow up with a sustainable extension model once the technical assistance is finished.	High  For this project, the focal points of SDAEs will collaborate and work directly with Bio-Fertilizer, Aquaponics, Irrigation and Biogas experts.	High  Planning and implementing the project through the extension service will always be carried out in coordination with the SDAE, and the SDAE will be responsible for technically advising the project and monitoring its performance.	Working group Keep close and Continuous involvement through planning and consultation
Instituto de Investigação Agrária de Moçambique (IIAM)	The IIAM brings together various areas of agricultural research and results from the need to integrate efforts and the rationalization and complementarity of resources and actions concerning research, development and dissemination of agricultural technologies in Mozambique.	High  Their interest remains in learning new climate-smart agriculture techniques viable for smallholder farmers in Mozambique. New knowledge is relevant to their future promotion, documentation, and training dissemination as part of their mandate.	High  As a renowned research institute in Mozambique, supported by the government, it is key to involve them since the beginning of the project to provide guidance on	High  Researchers from the institute can guide and support the design of adequate technological packages for implementing SMART agriculture.	Working group Keep close and Continuous involvement through planning and consultation

			technology implementation.		
TechnoServe Mozambique	NGO with the vision of ending poverty, building on our long track record of developing market-based solutions in agriculture and enterprise development, focusing on Regenerative Business for People, Nature, and Climate; Nutritious, Inclusive, and Sustainable Food Systems; and Decent Work for the Next Generations.	High  TechnoServe is currently working on strengthening Food Systems and Food and Nutrition Security in Beira Corridor, Mozambique, funded by the Embassy of the Kingdom of the Netherlands.	High  Experiences and knowledge exchange between different farmers and the Possibility of Exchange experiences between farmers	Medium  They are interested in learning from different initiatives in the Zambezi Valley.  They are working with smallholder farmers (SHFs), Small Commercial Farmers, and Private sector stakeholders for a resilient farming system along the Beira corridor near the Zambeze Valley	Keep close and continuous involvement through planning and consultation
Smallholder farmers	End beneficiaries, especially women	High  Smallholder farmers are the end beneficiaries of the technical assistance. Their interest relies on increasing agricultural production through access to climate-smart agriculture technologies.	High	High	Working group. Keep close and continuous involvement through planning and consultation
GAPI- Sociedade de Investimento	Financial institution for development. With the mission to contribute to the sustainable economic development of Mozambique through the i) promotion of national	High  During the interview, they said they are working closely with rural smallholder farmers to provide small credits for acquiring agricultural inputs.	Medium	Medium  If engaged correctly, they can be an interesting partner to fund the	Continuous engagement

	entrepreneurship and ii) building an inclusive financial system.	However, they still see smallholder farmers as risky actors. GAPI showed interest in participating in the project to learn about the technology and foresee if there is a future for financing smallholders.		implementation of the first pilot.	
BNI- Banco Nacional de Investimento	BNI is a Development and Investment Bank wholly owned by the Mozambican State through the State Participation Management Institute (IGEPE), dedicated to financing projects focused on innovation and which contribute to the process of sustainable development in Mozambique and boosting the productive sector.	High State bank focused on supporting innovative technologies that support the development of the country, specifically productive uses. Therefore, relevant to keep involved as they need to be aware of these initiatives towards securing funds for a second implementation phase.	High	Medium	Working group Continuous engagement

### 3.3 Mapping

Mapping the main stakeholders provided a clear picture of which of them can play an active and critical role in having the desired impact for this technical assistance. This allows to communicate effectively with all the participants in the project in the most convenient way for each of them.

Once the analysis has been carried out, the mapping tools allow to showcase the position in the project' environment that each actor will take. For the mapping, defining the concepts of Importance and Influence is key. **Importance:** Refers to the priority that the project represents to satisfy the needs and interests of each stakeholder. **Influence:** Refers to the power that each stakeholder has to accelerate or impede the achievement of the activity in discussion.

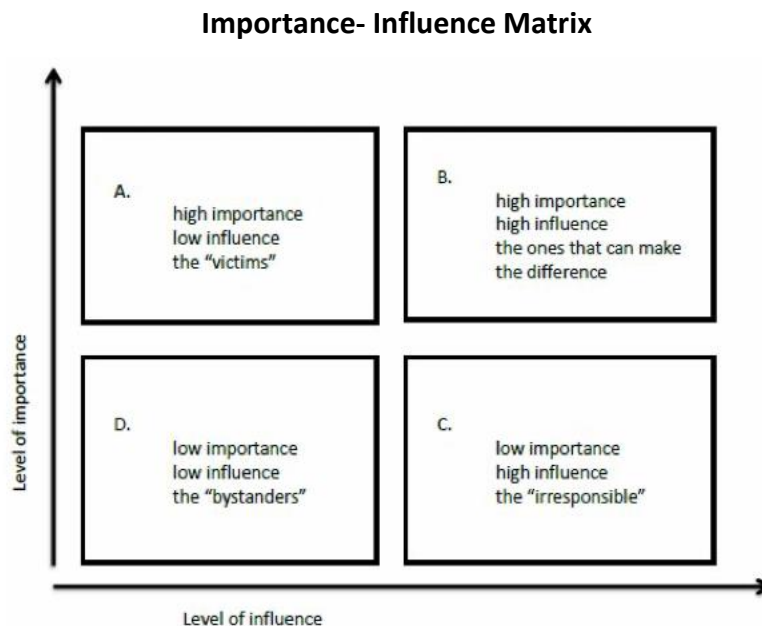


Figure 1. APMAS Knowledge network. Used in *The MSP Guide: how to design and facilitate multi-stakeholder partnerships*.

The MSP Guide<sup>1</sup> describes four categories for stakeholders based on their level of importance and influence:

- A. The victims. - Their level of influence is so low that even if the project can be of paramount importance for their activities or means of production, they can do little to nothing to play a key role in the project.
- B. The ones that can make a difference. - Those are the preferred stakeholders in a project, who play a key role in the importance and influence of the decision-making and implementation of activities.
- C. The irresponsible. - Actors that have a high influence and can affect the timeline or outcomes of the project, but the project is of low importance to their agendas or goals

<sup>1</sup> The MSP Guide. Designing and facilitating effective multi-stakeholder partnerships. Link: <https://mspguide.org/>

- D. The bystanders. - Their level of influence and importance is low. Therefore, their attention to the project outcomes is minimum.

According to the analysis carried out, it was possible to categorize the project's potential stakeholders according to their degree of importance and influence. Thus, you can see the categorization of potential members in the following matrix:

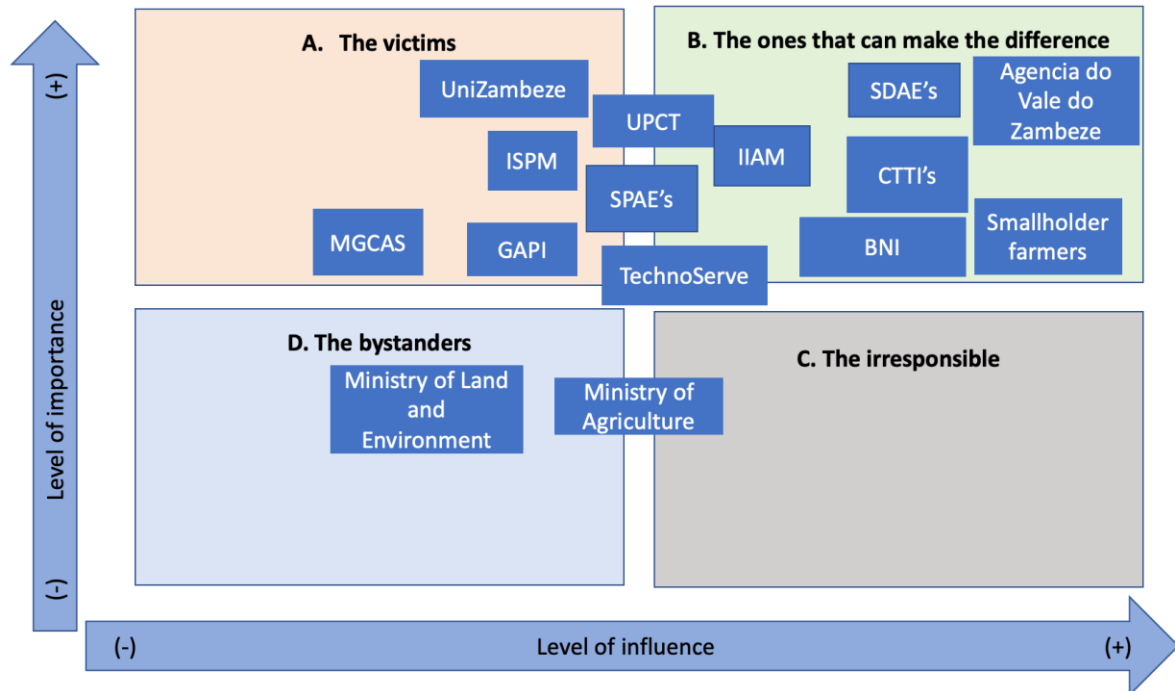


Figure 1. Stakeholder mapping.

### 3.4 Conformation of Working Group

As a result of the analysis and mapping of stakeholders, a group of **5 members** has been identified to form the working group for the project. Namely, Serviço Distrital de Actividades Económicas (SDAE), Center for Research and Technology Transfer Towards Community Development (CTTI), Instituto de Investigação Agrária de Moçambique (IIAM), Banco Nacional de Investimentos (BNI), and the selected smallholder farmers<sup>2</sup>, are proposed to be selected as part of the working group. Meetings will be also joined by personnel from Agencia do Vale do Zambezia and the consortium. To facilitate accessible communication mechanisms, a flexible communication platform for emails and WhatsApp will be implemented. Gender has been considered when identifying contact persons for each stakeholder to ensure that the platform gives enough space to women's agendas in conformity with the mission of the technical assistance.

<sup>2</sup> Though individual farmers may not have a big influence on the project, as a collective the farmers do determine the success of the project. We therefore consider them as actors who can make a difference, rather than as victims.

### 3.4.1 Formalization of the Working Group

The working group will be installed and formalized once the implementation farm is selected. This is because the first scooping mission included visiting 9 farmers spread in a considerable area and it is not realistic to invite stakeholders that will be not relevant once the farm is selected. The idea is to invite the provincial and district authorities corresponding to the selected region. The agreement to collaborate in the working group, as shown in Annex 2, will be used as a base to discuss their potential involvement in the working group for technical assistance. The proper formalisation of the working group will be presented in deliverables 1.2 and 1.3

## 4. Annexes

### Annex 4.1. Semi-structured survey

Dear Participant

My name is (insert name), I am part of the consortium PRACTICA-HUB, and the following interview is part of our project *Implementation of Water-Food-Energy nexus using digital technologies for local communities in Mozambique*. We are interested in interviewing the organizations working in the sector. We would like to ask you some questions about your experience as an identified relevant stakeholder.

Participation is voluntary and not paid. You can stop the questionnaire at any time. Your identity will remain anonymous as all the information.

Thanks in advance for your participation!

#### Basic Information

Organization/Company/Institution:

Location:

Date:

#### Questions

1. Can you tell me about your organization?
  - a. What is your mission and strategic objectives?
  - b. What are the activities of your organization?
  - c. Is it a public, private or nongovernmental organization?
  
2. Are you involved with smallholder agriculture in Mozambique?
  - a. Do you have actions, projects, funds related to integrated productions system or have interest in the area? Why
  - b. What actions do you take (or are you planning to take) regarding integrated production system?
  
3. Stakeholders.
  - a. Who are your beneficiaries, and what is their role & influence on the projects?
  - b. Who are your partners, and what is their role & influence on the projects?
  - c. Who are the other stakeholders, and what is their role & influence on the projects?

- d. Is the government of Mozambique involved in these activities within your organization? If yes, which government institutions and what is their specific role & influence.
  - e. Which stakeholders provide funding for your activities?
4. What stakeholders do you think should be included in the working group for this project?

## Acordo para o estabelecimento do grupo de trabalho para o projecto "Implementação do nexo entre Agua, Energia e Alimentos utilizando tecnologías digitales para comunidades en Mozambique'

### **Introdução**

Este acordo faz parte dos resultados do projecto "*Implementação do nexo entre Agua, Energia e Alimentos utilizando tecnologías digitales para comunidades en Mozambique*". Este projeto é um esforço do proponente do projeto Agencia de Desenvolvimento do Vale do Zambeze, e o Ministério da Ciência e Tecnologia. Implementado pelo consórcio PRACTICA e HUB.

O objetivo geral do projeto é desenvolver um sistema adequado para uma exploração agrícola seleccionada, incluído o Vale do Zambeze em Moçambique, que incluirá sistemas aquapónicos, biodigestores, biocompostagem e sistemas de gestão hidráulica (incluídos sistemas integrados de armazenamento de água e bombeamento solar para irrigação por gotejamento).

### **Duração do projeto**

O projeto tem duração de 15 meses, com início em Março de 2024. A previsão é que finalize a assistência técnica em Maio de 2025.

### **O Grupo do Trabalho**

O grupo do trabalho é um orgao independente da consorcio, que tem como principal tarefa avaliar os documento submetidos pelo consorcio

### **Funções e Responsabilidades**

#### **Do consórcio**

##### **Papel**

- Fornecer liderança estratégica no desenvolvimento, implementação e sustentabilidade da assistência técnica.

##### **Responsabilidades**

- Comunicar ao grupo de trabalho as atividades que foram feitas no passado, o que está atualmente em preparação e quais as atividades futuras que estão sob o escopo do projeto.
- Para acompanhar as entregas e levar a assistência técnica a um bom fim. Ccomunicar ao grupo de trabalho qualquer atraso.

- Comunique-se com o grupo de trabalho com pelo menos uma semana de antecedência antes de qualquer reunião.

## **Dos membros do grupo de trabalho**

### **Papel**

- Para acompanhar o progresso do consórcio, fornecer informações do conhecimento da área seleccionada, envolver-se nas discussões e fornecer uma revisão crítica das entregas.

### **Responsabilidades**

- Estar presente nas reuniões que o consórcio convocou.
- Participar ativamente das reuniões convocadas pelo consórcio.
- Revisar as entregas e fornecer feedback dentro do prazo acordado.

### **As Reuniões do Grupo do trabalho**

- As reuniões (presenciais) serão convocadas, pelo menos, uma semana de antecedência
- Cada encontro será realizado num local a ser indicado na invitación.
- A reunião só pode ser realizada se estiverem presentes no mínimo tres (3) membros efectivos do grupo do trabalho. As ausências de um dos membros devem ser comunicadas por escrito (via email) à equipa do consorcio (Practica e HUB), preferencialmente 48 horas antes da reunião convocada.

### **Pontos da ordem do dia**

O consórcio fornecerá um rascunho da agenda no início das reuniões. O primeiro ponto da ordem do dia será discutir e chegar a acordo sobre a ordem do dia proposta antes de iniciar a sessão.

### **Actas e documentos de reunião**

As minutas das reuniões serão elaboradas pelo consórcio e partilhadas com todos os membros do grupo de trabalho, de preferência por e-mail, mas também por outros meios quando o e-mail não for possível; O WhatsApp e os documentos impressos serão disponibilizados.

### **Comunicação**

A comunicação será feita preferencialmente por e-mail. Para compartilhar convites para reuniões e entregas. Se não for possível, telefone e mensagens de WhatsApp serão enviados.

### **Revisão de entregas**

- As entregas serão submetidas a um máximo de uma ronda de revisão com o grupo de trabalho seleccionado.
- Todos os membros do grupo de trabalho terão dez dias úteis para fornecer feedback sobre as entregas e compartilhá-lo com o consórcio.

- Uma vez feita a revisão, o consórcio submeterá as entregas à parte contratante (CTCN), e estas não estarão abertas a qualquer modificação.

### **Igualdade de gênero e inclusão social**

O consórcio mantém elevados padrões de elevada inclusão e igualdade de tratamento. Não toleramos qualquer discriminação com base em raça, sexo, idade, casta, religião, orientação sexual ou deficiências. Todos os membros do grupo de trabalho são encorajados a aderir a estes princípios.