Interviewer: Bosse Sottmann
Medium: Google Forms
Interviewee: GRC FbF Manager of the SRCS
Date: 31.01.2023

Introduction

The goal of this project is the design of a practically applicable volunteer sensing-based water source monitoring approach primarily for the water source type of Berkads.
Sub-goals are based on the learnings how water access can be measured specifically for this water source type, what information needs to be known about the source initially, continuously and if the incorporation of local knowledge is useful and possible -- and if yes, how and which specific information are helpful in the context of Anticipatory Actions.
The work will be based on a variety of different sources of information. In addition to this questionnaire and subsequent discussions, also with other stakeholders, best practices and knowledge will be gathered from the literature. Therefore, your input to this questionnaire is critical in multiple ways. Your and the SRCSs opinions, experiences and needs will be the foundation for all of the following work – ensuring that the resulting design meets your requirements and that it aligns to the constraints of this context. Based on the defined goals and following results you will mention here, best practices and knowledge from other contexts can be transferred and applied to this project.
Methodologically, this project coarsely follows the 7-layer-Model of Collaboration. We start to define goals, sub-goals and the actual results we need to accomplish in order to reach these goals. Further down the road, we will build on top of this by defining sets of actions to accomplish the results, thinking about patterns of collaboration internally and with other stakeholders and further defining specific techniques, tools and scripts. Thus, creating a design, that is adapted to the specific context and at the same time applies current best practices from around the world. Nonetheless, a disclaimer should be made, that this is a project in the context of a Master's thesis, thus a fully-fledged design ready to get launched is out of scope of this work. Yet, it can lay a good foundation for the following work.

General questions

Please give some brief information about yourself and about your organization.

- What is your role in the SRCS?
  - Offering technical support to the ongoing Forecast based Financing project
- How long have you worked in your position?
  - 1 year
- What are your predominant tasks?
  - Offering technical support to the ongoing Forecast based Financing project as well coordinating the partnership between SRCS and the German Red Cross
- How many paid employees does the SRCS have in total?
  - 249
- How many of those work in the sector of risk management and/or Anticipatory Actions?
  - 30
- How many volunteers does the SRCS have?
  - 1500
- How are the Volunteers spread across the country? Are there regions where there are essentially no or fewer volunteers?

    - The Volunteers are evenly spread across the country. However some regiosn have inactive volunteers due to less activities there whilst some regions have active volunteers due to the amount of project work being undertaken there

Goals of the project

This section is about the main and sub-goals of this project. A main goal could be the mapping of accessible water sources, whereas a sub-goal of this could be e.g. the training and education of volunteers for this task. Please think creatively, without the restriction of limiting resources and please also think about related fields that can be (indirectly) affected by this.

- What are the main goals for the project of mapping and monitoring water sources from the perspective of the SRCS? What do you ultimately want to achieve?
    - Location is key! Berkads location data is currently missing and this has resulted in the SRCS not being able to quantify the number of existing berkads per region. The main goal of the project will be ascertain the location of berkads and capturing key info such as berkad ownership status (some berkads are privately owned thus not everyone can access water from them. Important info to be also captured include the total number of people or communities dependant on the berkad as well as the storage capacity of the Berkad. Monitoring of water sources would enable seamless prioritization of regions to deliver water (water trucking). Ultimately, in terms of Anticipatory Actions water sources monitoring would enable triggering action before critical water levels
- Can you think of sub-goals that would go along with each main goal?
    -
- Can you think of additional goals from the perspective of the community or volunteer potentially involved in the project?
    - From the community/volunteer perspective the main goal would be for them to know the existing water resources within their vicinity, as well as the capacity of these water bodies. The main goal being to ascertain whether these water bodies are able to withstand the demand during drought periods.
- Which of these goals could match well and which might be competing?
    - The community and SRCS goals match as both focus on closing the knowledge currently existing regarding berkads numbers per district, community and regional level

Wanted results

In order to fulfil the defined goals, it is important to further specify actual outcomes by the project. These may deal with issues of quality, effectiveness, efficiency, and other product related characteristics. Following the example from above, this could be a collection of data about water sources in the project area meeting certain pre-defined quality standards. Another result for the sub-goal of trained volunteers might be a collection of appropriate training materials.

- What results must be achieved in order to reach the goals? Please list them.
    - i) Location data of the berkads (coordinates),
    - ii)Volunteer orientation on water resources monitoring
    - iii) determining the ownership status of each berkad

    - iv) community sensitization to dispel misconceptions about the mapping and water monitoring exercise
    - v) water levels monitoring
    - vi) triggering action based on water levels
    - vii) Determining the water level trigger
- Which of those results do you consider to be the most critical? Please list them and if possible, explain why.
    - Location data as this will enable determine the serving capacity of each berkad i.e the total number of communities dependant on each berkad. One important result is also community sensitisation to dispel misconceptions within the communtiies. The community will need to understand why the SRCS will be monitoring water bodies. Triggering for action is also a key result as the end goal will be to counter water shortages so as to mitigate water shortages.
- Based on your experience – in which chronological order do the results have to be processed? Please order them accordingly and add some explanation if possible.
    - i) Volunteer orientation on water resources monitoring
    - ii) community sensitization to dispel misconceptions about the mapping and water monitoring exercise
    - iii) Location data of the berkads (coordinates)
    - iv) determining the ownership status of each berkad
    - v) Determining the water level trigger
    - vi) water levels monitoring
    - vii) triggering action based on water levels
- Which of the results specifically required in the design phase do you think are the most critical?
    - Determining the water levels to trigger action.
- Which results would specifically be required to address Anticipatory Actions?
    - i) Determining the water level to trigger action
    - ii) water levels monitoring
    - iii) triggering action based on water levels

Stakeholders

One of the key success factors for a successful design and implementation of a crowdsensing project mentioned in the literature is the early inclusion of all involved stakeholders. This section is about them.

- What stakeholders are involved in the mapping and monitoring of water? Who is actively involved, passively affected or just indirectly concerned (please add this information respectively)?
    - i)SRCS Volunteers Actively involved
    - ii) Communities Actively involved
    - iii) Berkad owners Actively Involved
    - iv) Community elders Actively involved
    - v) Other NGOs Indirectly concerned
    - vi) The Government Ministry of Water resources
- Which stakeholders, other organizations, communities, groups, or individuals could additionally contribute to the project in terms of knowledge, resources, or other kinds of qualities? Think creatively, ‘around the corner’ and gladly draw from your experience in other projects.

    - The Ministry of Water resources , NADFOR, Other NGOs because they have also constructed some berkads in some communities, FAOSWALIM, the Local government political leadership i.e the Regional governor etc,
- Of all these stakeholders, who are the most important ones – and why? What should we know about them that might be critical for the success of this project?
    - The Ministry of Water resources because i believe have a database on existing drilled boreholes in Somaliland (although the lack berkad data), The ministry of water also has the technical expertise in water resources monitoring. NADFOR because they have a similar ongoing programme on community level monitoring of livestock body condition, market prices as well as weather variables. Other NGOs because they have also constructed some berkads in some communities.

Resource availability and positive/negative constraints

This section is concerned with the context and environment of the project. To be applicable to the actual context, the design requires negative and positive constraints. In contrast to goals, constraints define stricter limits that need to be respected in order to improve the chances of success. For example, a constraint can define what is not possible (negative constraint), as well as what essential functions need to be met (positive constraint) and what would simply be an added value.

- Please list all negative constraints you can think of regarding this project. These can be the classic areas of human resources, knowledge and financial capacities as well as softer social requirements and constraints.
    - The project might create huge expectations from the communities as there is the ongoing drought. Whenever there is monitoring of resources communities believe this should be followed up by instant aid. Private berkad owners might not be willing to contribute to the project. They might bar Volunteers from accessing their berkads thus creating tension between community volunteers and berkad owners.
- Now, please list all positive constraints you can think of regarding this project.
    -
- Are there any other requirements and/or restrictions that we need to consider when designing this project right from the beginning? These could include, for example, content, format, time management or cultural specifics.
    - i)There is an ongoing drought and thus the SRCS staff and volunteers might be over stretched in drought response activities.
    - ii) Community elders should be engaged before the start of the mapping and monitoring as they will help dispel misconceptions about the project
    - iii) the ministry of water resources should be in the loop during the entire project duration

Final remarks

Here you can write anything that you find important but was not addressed above. You can give feedback to the questions, raise concerns about some other issues or highlight certain aspects or perspectives.

- Final remarks
    - All the best in your studies!