



Water Harvesting Intervention in Livelihood Improvement and Conflict Reduction

With the introduction of haffirs closer to where they are needed, there is increased availability of water for livestock and domestic water supply during the dry season. This has reduced seasonal pastoralists' movement and potential for conflict over limited water. Income from livestock production and other productive activities has increased

Introduction

Conflict in South Sudan over natural resources, particularly competition over access to traditional grazing lands and water rights, remains a fundamental challenge to peace and stability in the country. The Government of South Sudan and the international community have invested in livestock water provision, through water harvesting including haffirs as a means to mitigate conflicts arising from dry season water shortages. Developing water facilities for livestock is an expensive intervention.

Such investments should be accompanied by activities that aid in the understanding of the dynamics of pastoralists in conflict-prone areas for better planning, design, organisation and management of water facilities.

It is equally important to understand the effectiveness of haffirs in reducing conflicts between communities as well as other socio-economic and environmental effect. This intervention aimed at addressing challenges related to shortage of water particularly during the dry seasons and social cohesion between some communities in South Sudan.



INTERVENTION AREA

Water resources development and management



LOCATION

Jonglei, Eastern Equatoria, Lakes and Warrap States of South Sudan



STAKEHOLDERS AND PARTNERS

- Ministry of Electricity, Dams, Irrigation and Water Resources, Ministry of Environment, Ministry of Energy and Mining, FAO, UNEP and United Nation Peace Building Support Office.
- Financial support was provided by the Peacebuilding fund for South Sudan

Methodological approach

An assessment of water harvesting facilities in selected states of South Sudan found that there were many shortcomings. Therefore, the following technical guideline was developed for improved haffirs facilities:

Community sensitisation and mobilisation: Creation of awareness in the community on natural resource management issues such as access to and sustainable management of grazing areas, maintenance of the haffirs and the roles of the different stakeholders, including women and youth.

Formation of Natural Resource Management Committees (NRMC): The NRMC must be formed by the community with the full knowledge and approval of local civic and traditional leaders. It is very important to assess the composition and representativeness of the NRMC and define the roles of committee members. The NRMC will play a greater role in the future management of haffirs and the surrounding natural resources.

Natural resource analysis: Prior to selection of the haffir site, it is vital that a natural resource analysis is conducted with the NRMC. The analysis should look at the natural resource capital of the area, resource users, as well as accessibility and control over these resources. The analysis should also strive to identify key issues and constraints affecting the areas around the haffirs - mainly water and pasture in the area. The analysis is not only important for selecting the location of the haffir sites but also forms the basis for developing a sustainable resource use and management plan.

Development of management plan: After identifying all the resources and causes of degradation and depletion in the area, a management plan is needed to assist communities in addressing priority natural resource issues through realistic interventions. It allows communities to progress from discussing common concerns and issues to defining carefully considered actions that will improve some aspect of natural resource management in their area.

Results

- **Reduction in conflict over access to water and grazing lands:** With the introduction of haffirs closer to where they are needed, there is increased availability of water for livestock and domestic water supply during the dry season. The greater and closer availability of water enables pastoralists to limit their seasonal movement in search of water and grazing land during the dry season. This reduces incidences of clashing with other communities while competing for the use of limited water sources and/or as they cross others' territories on route to favourable areas.
- **Livelihood improvement:** As a result of closer and more reliable livestock water provision from haffirs, income levels of pastoralist households from livestock

production and from other productive activities have improved. Livestock herds benefit both quantitatively and qualitatively. Increased access to water minimises energy losses and higher maintenance required to cover long distances to and from water sources. More time for grazing and resting favours improved productivity.

- **Reinforcement of social cohesion:** At community level, social cohesion is strengthened by working together and by holding consultations with one another.

Sustainability

Efforts to improve sustainability of haffirs are as follows:

- Together with other partners, support on the production and use of haffirs and water harvesting facilities has been in place since 1972.
- Haffirs have been well adopted by many communities in South Sudan and improvement is being delivered by partners.
- Beneficiaries are trained on management of haffirs and natural resources including maintenance of haffirs.

Replicability and upscaling

Water harvesting and haffir construction can be replicated and scaled up in situations of water shortage in the dry areas. The following actions should be considered:

- Pursue awareness raising among decision makers and communities on the benefit of water harvesting and haffir production.
- Clarify the link between clean water and human health.
- Promote awareness about the impact of haffirs on the surrounding environment and the need for rational use of natural resources to meet the demand of the current population and future generations.
- Provide flexible water harvesting designs that can be adjusted to local conditions based on consultations with community stakeholders, especially women who are the most affected by shortage of water.
- Create a management team within the community who will monitor, report and share results with the stakeholders.
- In each location, establish a maintenance reference team that the community can consult on haffirs and water harvesting.

Additional Information

Food and Agriculture Organization of the United Nations (2015). Planning, Construction and Operation of Water Harvesting Structures in South Sudan. FAO.

CONTACTS

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