

General comments

The purpose of this study was basically to evaluate socio-economic benefits of sand dams as seen on the ground through the eyes of an expert who is not involved in the project in anyway. Obviously this would result in both positive and negative aspects of the project.

Overall the study found that the sand dam project is of value to the participating communities. However it would have more pronounced impact if the suggested recommendations in the study were actioned. These recommendations can only strengthen SASOL and confirm the forward thinking in the organization especially in capacity building for better exploitation of the improved water situation for better living starting with food security.

Areas of focus are:-

- Building a strong community organization for constructing and managing the sand dam.
- Capacity building for understanding of environmental resource use and promotion agricultural production for greater food security.
- Hygiene and sanitation training to prevent water contamination and promote gains in health stemming from increased supply of water, vegetables fruits and food emanating from sand dams.

1. The freeing of time is the most important precursor for people to be able to undertake food related activities. This is so because the period of high water stress coincides with the period for undertaking farm preparation for planting. Since timing of planting makes a difference of getting a crop or nothing, it is highly significant. The Ministry of agriculture has shown that late planting by 1 week will result in 30% drop of yield in Kitui. Sand dam participants who have invested their time on on-farm water harvesting and early preparation and planting have improved their production. One of the reports main recommendations is to promote this approach.

2. In the beginning the sand dam programme was a very new idea. Today communities are requesting and soliciting SASOL's help for this development. This implies some organization in the community geared to this development. It is the engagement of this organization which leads to the construction. Due to the changes which occur after construction of sand dam it was recommended by the report that an extended time should be spent with the community. The sites developed in the first four years will have the benefit of staff being around as subsequent dams are done. However for the last year it will be necessary to extend for continuation for sometime at least a year supervision to make sure that the lessons learnt are fully understood.

Other issues

1. Yearly budget

50 dams	Ksh. 37,890,000
Community contribution	Ksh. 15,080,000
Request from MCC/CFGB	Ksh. 22,810,000

2. Training and capacity building in the participating community is geared towards the making a suitable environment for improved livelihood based on a water platform. In this case Trainings on (1) Natural Resource Management (2) Project Management (3) Hygiene and Sanitation are preferred.

In addition for improved understanding of water in a natural system we are developing a new course focusing solely on “moisture Management” for greater production. SASOL has an internal environmental code involving a catchment development approach. This will be greatly reinforced in future as the water Resources Development Authority has been instituted in the New Water Act to deal with these issues.

3. The project is integrated in terms of water harvested systems for capturing water for both domestic and production use. Also is the limiting resource in all dry land development. Without it there is no development. On the other hand with water livelihoods are changed and the whole fabric of society too. In addition the building of a sand dam is not merely the construction of a wall but includes management, protection and multiple uses of the water.

4. The project will be built on all experience which has been garnered in the last 10 years of the sand dam programme including studies already carried out on “land –use” and “water balances” in addition to the socio-economic studies.

5. SASOL has a compliment of skilled staff to carry out all the project activities spelled out in this project. We are in the process of acquiring more members of staff to compliment the existing staff; a water technologist and community organizer. In addition we have requested a monitoring and evaluation personnel from MCC Kenya to oversee the project and ensure it remains on track.

6. Site Management-

- “Mobilization the implementation of a sand dam is solely based on mobilizing and organizing the dam community into a unit for the purpose of building maintaining, and using the dam to improve the local community. This occurs despite any other organizational structures existent in the community at the time of this organization is to mobilize resource in the site community in order to secure their water resource. Each site community has to mobilize its own resources independent of other sites even in the same village which may have multiple sites.

- Siting and site preparation – siting of a sand dam is crucial to its success. A site has to be accessible for the participants to use effectively. Socially it has to be acceptable for participation to occur. Thirdly for effective development it must have local material especially stone reasonably close for successful development. Communities pick sites according to an established criteria which are presented for discussion. The final site is agreed between the community and SASOL with considerations of technical assets. Considerable effort and time is spent by SASOL staff and community at this stage to ensure that all the following activities follow smoothly. Failure to concentrate here means no dam hence, hope of advancement in the community.
- Construction supervision
Once a site has been picked, the work of developing the site begins. Contrary to the popular belief that the building of the wall is the most important stage, we feel it is not. Activities leading to building include clearing the site, piling up construction stone (this is particularly strenuous), planning for sourcing sand and water. This is followed by marking out of a trench for the dam and designing the dam by the construction supervisor. Under supervision the community excavates the trench to an impermeable base on which the dam will be founded. Trenching forms 20-25% of the site development work. Supervision during this stage is necessary for economy of material.
- Transport
All transport costs for the supervision training, monitoring evaluation and construction personnel and activities.

7. Administration cost

- Stationery
- Utilities- power and water
- Postage and freight
- Telephone, email and faxes
- Housekeeping
- Rent
- Travel – fares, accommodation and per diems.
- Insurance – office, equipment and vehicles
- Office equipment – computer and furnishings
- Vehicle maintenance and fuel
- Office staff
- Accounting
- Record and report production.