

SHALLOW WELL PROGRAMME REPORT 1993

1. OBJECTIVE

This programme is geared to provide safe potable water to school children and the surrounding communities. Ideally the water should be within easy reach (15 minutes walk at maximum) of the school.

Further the shallow well will provide water for rudimentary irrigation and act as a base for water management training with water easily available at the school, tree seedlings can be raised here for distribution to the community.

Strategic construction of a waternet composed of shallow wells or alternate waterpoints at the school compound or its vicinity, reduces the risks of water borne diseases in school children. It significantly reduces the time a farming community spends in fetching water, which can be used in performing other chores on the farm improving productivity. The twin benefits of available safe water resulting in improved health and time availability for work on the farm are prerequisites for improved agricultural systems.

2. PHILOSOPHY AND OPERATION

Though the community has realised the importance of water and its demand on time especially for women, little effort has been applied towards the solving of this problem. It is surprising that this apathy exists. However, two different factors are easily recognised which are detrimental to development of water points. One is land ownership and the other is the cost of development.

A well is too expensive to develop on the family income of most of the families in the community. As a result most families continue to use the public natural water points which are not ideal and inconvenient. The alternative would be to construct communal water points within easy reach of a village community.

This is barred by the privatisation of land as there are no more communal lands. Development of a water point on private land may lead to privatisation of the facility on completion. To get around these deterrent factors SASOL has picked on the school compound as the site for development of water points in a community. The school is the property of the community thus this point legally owned by the school belongs to the community. Even the water-points which are outside the immediate school compounds are owned by the school. The school is encouraged to acquire the land 1/2 - 1 hectare around the water point.

As a demonstration to the capabilities of the community in their development, the responsibility for the development is on the community. They have to prepare the site of the water-point and acquire the necessary local material for construction. This is done either through communal labour or contribution to employ local labour. Either way a measure of communal organisation is achieved through the school committees.

It is important to note that, however, this is but an initial phase towards developing a comprehensive water management in a catchment. By developing shallow wells the immediate benefit is that of potable water. In the longer term, an integrated water management systems must be development in the community for production. The development of an unlimited number of wells in a catchment will lower the water table if measures for effective recharge are not taken.

A communal shallow well should thus play a role in ensuring the survival of several trees as a contribution to ground water table recharge. Further, physical structures for water retention to allow percolation are to be constructed in the school compound to enhance ground water storage. Ultimately whole catchments must be developed to stem off surface run-off, holding water in the land for production. Such structures as earth dams and sub-surface sand dams should eventually be developed in addition to afforestation.

3. PATHWAYS TO A SHALLOW WELL DEVELOPMENT

The first stage towards a shallow well development is the location of a suitable site. This obviates development of sites which are low yielding and uneconomic. This is a technical function to be carried out by a hydrologist, a water diviner or derived from local knowledge. For SASOL this function was carried out by Ground Water Survey Ltd.

Stage two involves the community and together with the subsequent development is fully dependent on their co-operation. It is based on this will of the community to make its own development. The community has a choice either to develop the located sited or not to bother, if the later choice is taken there is no further action. On the other hand the community sinks a hole in the ground to a level where the water yield is economic.

In doing this the community comes together and a coherent group is formed to perform this function. Alongside sinking the well the community also collects chipstone and sand for use in the construction. These activities bring the community together for communal effort.

Once the site has been prepared, stage three can be activated. This is a construction stage which is technical. SASOL undertakes to construct the

well together with the community. A well construction mason constructs the well with the help of the community. The cement and the necessary reinforcement is brought in by SASOL.

After the construction, the maintenance of the site is left in the hands of the community who have been involved fully in its development.

4. ACTIVITIES IN 1993

The programme started late in 1992 with location of suitable sites in Kyangwithya, Mulango and Kisasi location schools.

At the end of the short rains which extended to February 1993, scooping out of shallow well holes started.

In June 1993 a compliment of 5 construction masons was recruited to work under a supervisor who had been overseeing the scooping out of well holes.

Construction started in July and to date the following sites have been developed.

1. Isaangwa Primary School
2. Mutuni Boys Primary School
3. Mutuni Girls Primary School
4. Kilungu Primary School
5. Ivaini Secondary School
6. Syongila Polytechnic
7. Kangau Primary School
8. Kitumbi Primary School
9. Kwa Mboo Primary School
10. Kasyala Primary School
11. Kwa Ukungu Primary School
12. Wanzoa Primary School
13. Maseki Secondary School
14. Mbusyani Primary School
15. Mutendea Primary School
16. Mulundi Primary School
17. Ivovoa Primary School
18. Kyalilini Primary School
19. Kithamba Ngii Primary School
20. Sooma Primary School
21. Kyandui Primary School
22. Yumbisye Secondary School
23. Kakuuni Primary School
24. Kilinyaa Primary School
25. Ithookwe Primary School

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