

**NGO'NGOSORO QUICK WATER SURVEY REPORT
IKUNGI DISTRICT**



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INTRODUCTION

Ng'ongosoro village is one of the five villages of Issuna ward at Ikungi District at central region of Singida in Tanzania established under village land Act No. 5 of 1999 of the National Land Policy which form villages and previously was splinted from Issuna Village. Ng'ongosoro village is boarded by Issuna at eastern part of its boundary, by northern it bordered by Matongo village, while in the western part it's bordered by Malolo village and Igilason village and in the northern part it is bordered by Mkiwa village.

The village has three hamlets which are Mbugani hamlet, Mponda hamlet and Ng'ongosoro hamlet which is administrative area of the village and according to 2002 census the village has 13,350 of total population.

Quick water survey was conducted to obtain primary information and establish hydrological water survey and obtaining water user inventory in Ikungi District Water department and central water basin after construction of boreholes and water shallows wells. The main economic activities in the village are farming and livestock keepings. Other activities include beekeeping, small business and hunting. Crop production is central to the economy as it provides a large part of household food consumption, an important proportion of income through the sale of production and generates substantial employment opportunities. Both food and cash crops are grown. Food crops produced includes horticultural crops mainly vegetables that depend much on irrigation. Other food crops are beans, Maize, Cassava, Potatoes, Onions, and Groundnuts. Cash crops produced includes Sunflower and millet

Livestock keeping is done by Sukuma who came with their cattle looking for pasture in the area. The most livestock kept are cattle, goats, sheep, Donkeys and Chicken. There are also reported frequent conflicts between Livestock keepers and Farmers in the area especially during the dry season when livestock keepers want to give their animals water.

OBJECTIVE OF THE QUICK PRIMARY SURVEY

Quick water survey was conducted to obtain primary information and establish hydrological water survey and obtaining water user inventory in Ikungi District Water department and central water basin before and after construction of boreholes and water shallows wells that are expected to start soon.

Apart from that the survey aim at identifying water sources which are found at Ng'ongosoro village and its sub village and establish water user inventory that will help District and Donor know the amount of improved water sources needed by community and on management of water resource sustainably. This will also assist the formed water user groups to collect water user fees as one of revenue sources and also help community members who don't have water use permit apply for water use right.

It will also help us determining the direction of groundwater flow, where it was recharged from, where it discharges to and how it interacts with surface water.

METHODOLOGY

Emergency meeting was held at Village by local leaders to identify members (Village Chair person, VEOs and few community members) in a village who could help undertaking survey.

Simple discussion with identified members was carried out to identify sources around river stream, and also asked simple question to know if they have a kind of organisation and the management practices on those water sources. Community gaps related to water resources management were also discussed in a meeting to identify gaps and techniques used in case of conflict toward those sources especially during dry season. Semi structured interviews to those community members we found at water sources were conducted to identify issues related to water problems and conflicts management in the use of water.



Fig. 1. Pictures which shows one of the domestic water source which was found during our visit

Two HAPA staffs, two staffs from the district and 3 community members from the village office were involved in the exercise. Two women were also involved in the survey. The team also introduced to District Executive Officer. At village level leaders of the village (Village Chairperson and Village Executive Officer) and 3 important or famous people were involved in the exercises that joined the team in the quick water survey of water sources. However the following were steps taken in identification of water sources:-

- Curtsey call at District office and even at village office and introduce the aim of the activity
- Introduce the program to the village leaders and important or famous person at village level
- Visiting site and river streams and meeting with owners of the water source point and shallow wells or dams
- Recording the number of users of the canal and shallow wells
- Report preparation

The team visited one sub village by another and all the water sources. However review of existing water user in the village office was not hundred percent done due to the fact that they failed to give actual numbers of users where we can produce secondary information on the matter.

FINDINGS AND DISCUSION

In the village of Ngo'ngosoro there are two main source of water identified during the survey that are underground water source and surface water sources. Underground Water sources are mainly from local constructed shallow well and local constructed dams and surface water are mainly from river streams and canals which are mostly natural.



Fig.2. Pictures shows some of the underground water sources which were found during our visit



Fig.3. Pictures shows surface water sources which were found during our visit at Ngo'ngosoro

The quick water survey conducted aimed to identify both underground and surface water sources where we can obtain data on producing boreholes and shallow wells with their status of water use at District level and village level. A total of 8 water sources were identified (See the attached Annex I). It was clearly revealed that there are possibility of having 2 boreholes one at Ngo'ngosoro central sub village and another one at Mponda sub village in which out of those two the remaining 6 sources 2 could be improved and fenced with iron fence and the 4 other source to be constructed shallow wells.

However it was clearly noted that majority of water sources were depended from river stream and local made dams constructed by those livestock keepers who consume about 5674.16 litres of water per second in which out of these community members from Ngo'ngosoro central consume 5000 lts/sec due to the population of the area. Detail can be seen to Fig 3 & 4 below.

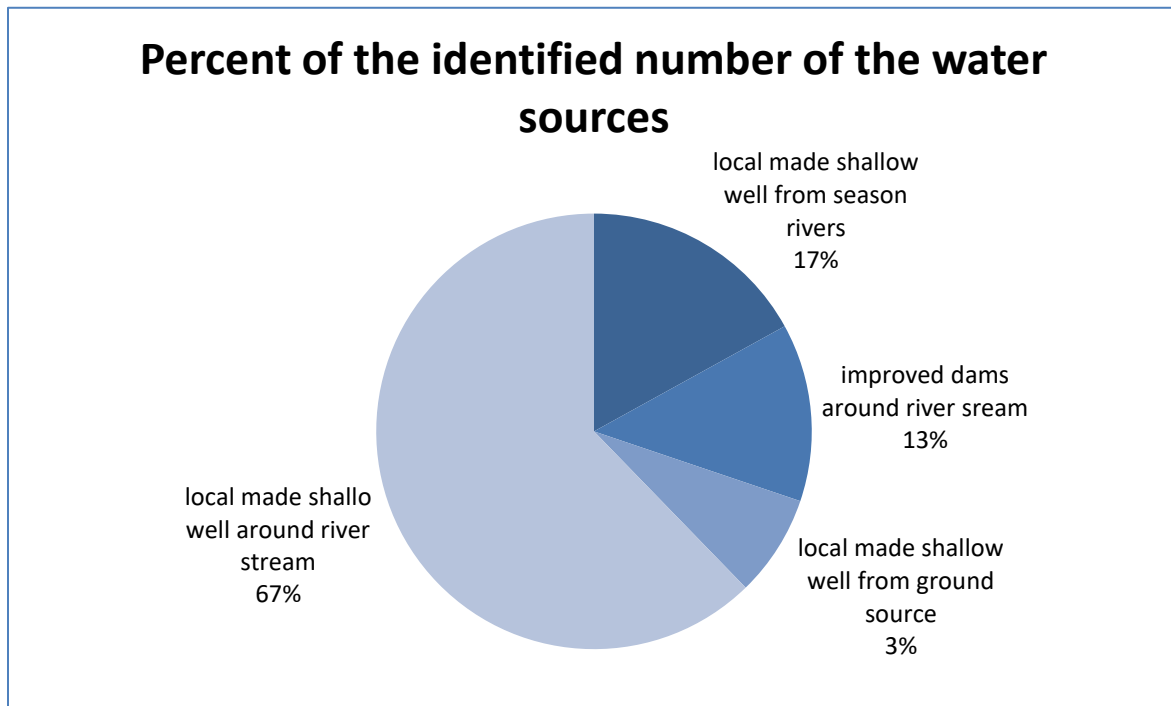


Fig.4. Wami Sub-catchment Water use status

However most water sources surveyed were for domestic purposes and for cattle grazing purposes out of 8 identified water sources, All surveyed water point were having no records of number of people they use those water and it was even not easily for them to remember the number.

Livestock keepers were noted also as potential water users operating as individuals taking their cattle directly to river stream and dams. It was also difficult to identify and measure the number of livestock keepers as there are no clear data of how many livestock keeper. Two sub villages of Mponda and Mbugani are inhabited by Livestock keepers and to some extent Ngo'ngosoro sub village. Cattle in these sub villages get water directly from River stream and dams. However livestock keepers are also not organised. Individuals take cattle directly to the river and these had contributed to river beds destruction thus affecting normal flow of water to the river. However to reduce the destructions Village Governments Authority have to identified specific areas in which cattle can take water although of the weakness they have of lack of leadership and an organised livestock water user group.

If Livestock keepers will be advised and facilitate to form water user group of their own will help in engaging them with water user group leaders and access water right. These can be followed by facilitating them in construction of water trough where cattle can take water and avoid taking it directly to the River. Cattle trough can be constructed 60m away or more from river beds and help protect river beds from destruction. and this will provide livestock keepers with means to apply for water permit and avoid conflicts with farmers and domestic users.

However it was also noted that water users in streams are also not organised and they lack clear management of their water resources. Water point around canals are locally constructed with poor water infrastructures as a result allot of water is lost especially during rainy season and not used properly even during dry season and also there is poor management of water sources observed. It was also clearly observed that farmers are farming close to the river banks almost zero distance, their activities involves cutting and burning of trees and shrubs to water sources and the catchment areas.

During the survey exercise at Ngo'ngosoro there were some other findings noted by the team. These include the following:-

- Distance from water point to houses since most of the water sources were around the streams which are few as well as high attitudes of the area to obtain water also seem to be challenging.
- Fire burning and farming on river beds were noted during the survey and it is common practices in the area were we surveyed.
- One of the big gaps identified by the team is lack of water user groups at grass root level (River stream) and management practices to most of farmers using water for irrigation. However livestock keepers who are also potential water users are not recognised by the government and they lack organisation and management structure which could help them to speak on behalf so that they can get assist on how to get funds for them to construct point which their cattle can take water.
- Owners of the water sources do not have records of their members.

CONCLUSION AND RECOMMENDATIOS

To construct 2 boreholes one (1) around Ng'ongosoro central and another one at Mponda sub village due to the nature of the land we found which its aquifer allows water permeable and the six (6) shallow well to be constructed three at Ng'ongosoro Central sub village and one (1) at Mbugani sub village also two (2) shallow well to be constructed at Mponda sub village. Apart from constructing boreholes and shallow well there is also an important to construct areas where cattle will take water at least one point in each sub village to avoid sharing of water among community members and cattle's.

It was also noted that there is a gap in information about water issues and sharing between stakeholders, District Authority, village leaders, and water users. An effective communication strategy is required to ensure proper information flow and sharing among stakeholders concerning water issues. It is easy for village leaders at village level to work with community members and encourage communities to form organised water user groups and water user committee with clear management structure and practice.

Currently community members are constructing shallow wells and local made dams in isolation that become very difficult to implement the law enforcement as this require working in participatory with village leaders, community members, District Authority, Ward Development Committee and Ward Reconciliation Committee as well as private individuals or companies who can assist the issue of water construction points. Facilitation of formation of water user groups at stream level followed by training on management practices and on water resource management to equip leaders with skills to handle their duties is recommended.

One of the areas identified by community members and village leaders is the need for the awareness creation, knowledge and skills to combat increasing problem of poor management of water resource. Acquiring knowledge and skills for the village leaders and the leaders of water user groups will help them gain insight into different ways and strategies to get out of the water problem.

For that matter, there has to be more capacity building training for the different groups of stakeholders to help them gain insight on community based water resource management. However awareness creations at community level through public meetings need to be conducted to help increase community understanding on nation water policy concept and practices.

5.0 ANNEXES

ANNEX I

WATER POINTS SURVEYED DURING THE VISIT AT NGO'NGOSORO VILLAGE

SN	OWNER	TYPE OF WATER SOURCE	TYPE	SUB VILLAGE	NUMBER OF USERS	USE
1		shallow well	Ground water	Mponda	nil	Domestic
2		shallow well	Ground Water	Mponda	nil	Domestic
3	Kwa mama.....	dams	Surface	Mponda	12 household	for Cattle and domestic
5		river stream	Surface water	Ngo'ngosoro central	nil	Domest
6		river stream	Surface water	Ngo'ngosoro central	nil	cattle and domestic
7		river stream	Surface water	Ngo'ngosoro central	100 >	domestic and irrigation
9		developed dam	Ground water	Ngo'ngosoro central	50>	Domestic and irrigation
12		river stream	Surface water	Mbugani	nil	cattle and domestic