

## **RECONNAISSANCE TRIP TO ULILINZI SUB-LOCATION ON 3<sup>RD</sup> AUGUST 2012**

### **1. Background Information**

In May 2012, the Executive Director of SACDEP made a trip to Germany to make presentations about SACDEP's work. It was during one of the presentations that he and Virginia of Freiburg Peace Forum, Germany met. The two discussed about possibilities of SACDEP helping in designing a project to be based in either Kibwezi or Kisumu Districts of Kenya. This is because Freiburg Peace Forum, Germany had opened up some contacts in the 2 Districts.

Upon coming back to Kenya, the two institutions continued to communicate and develop the idea further on possibilities of collaboration. Finally it was agreed that SACDEP would help in designing a Community Project in Kibwezi and preferably one that had a component of irrigation. This is because SACDEP was already working in the Eastern Province unlike in Nyanza where the other contact for Freiburg Peace Forum were. It was agreed that the first step would be organizing for a reconnaissance trip to the field to familiarise with the communities, understand the region and establish the possibilities of such an intervention.

The reconnaissance was then organized and held on 3<sup>rd</sup> August 2012.

### **2. The Reconnaissance trip**

The trip took place as planned. The team involved Polly Wachira, representing SACDEP-Kenya and Dominic Muchemi, an Irrigation Water Surveyor and Community Development Consultant. Mr. Kaunga, a teacher at a local Primary School was the link person who helped organize for the meetings in the field.

On arriving at Ulilinzi, we visited the Assistant Chiefs Office to make a courtesy call and then proceeded on to meet the Ulilinzi Community Based Organization (CBO). After introductions with the CBO members, it was agreed that the trip be organized into 2 sessions as -

- 1) Trip to the proposed irrigation project intake
- 2) An interactive session with the CBO members.
- 3)

Below are the findings of the 2 sessions.

#### **2.2 Trip to the proposed irrigation project intake.**

The team took a drive to the proposed intake. The distance from River Athi to where the communities' farms are is about 9Km. The river has adequate water at the point of the suggested intake. It has width of proximately 30 meters and borders the Tsavo East National park. The river bed at the point we visited has loose soil and hence would not be ideal to build a weir. That means that a better site for the intake as to be searched for.

Along the river Athi, farmers were using portable pumps to irrigate land approximately 200 meters away from the river bank. Some of the crops grown were water melons, mangoes, cowpeas, maize, and tomatoes and they were doing well. That gave an indication that with availability of water for irrigation, the land was good and conducive for growing a variety of crops. Farmers were also using the same river as a source of their domestic water.

The next stop was in a private farm owned by a Nairobi based farmers. The farm slopes towards River Athi and has about 450 Acres under irrigation. This farmer has constructed a concrete weir across the river and installed two turbines. The turbines use water as the source of energy to pump the water to approximately a 20 meter head for a distance of 300 meters where it is stored in a dam. The water is then directed through canals and flows back by gravity to water the orchard within the 450 acres. The system is very low cost and only has a huge initial capital investment of purchasing and installing the turbines. Our findings indicated that an initial investment amount of that size would cost about Kshs. 3 million. The turbines are manufactured locally within the country. The other costs are only lubrication oil for the turbines. However, the farm has a standby emergency diesel engine.

The farm is very productive and mainly grows fruits (mangoes, oranges, paw paw, bananas etc) for export and for local consumption in the Westlands upmarket of the City of Nairobi. The farm has also employed about 200 people within the community.

Based on our findings about the irrigation taking place in the private farm, it is possible to design an irrigation project within the region since there is adequate water from River Athi. However, key factors to consider are:-

- 1) Initial capital investment either of renewable energy systems e.g. turbines or other conventional methods.
- 2) An ideal site for constructing the intake needs to be identified. Preferably a site where the water would flow by gravity.
- 3) Ways of managing the water for irrigation. Should it be piped/metered? How would the rationing be done. Who gets water when and how much. Would there be a storage tank? Possible develop a Water Users Association

## 2. An interactive session with the CBO members.

Later in the day, we held a meeting with the Ulilinzi CBO Members. The CBO is comprised of 13 groups. Most of the groups have been formed out of the need to address shortages in availability of income. It was found out that almost of the groups were attempting to establish tree nurseries as a way of earning income. It was very challenging though because of the unavailability of water.

Ulinzi sub location is mainly comprised of the Kamba community. It has a population of approximately 9,000 people. There is piped water in some of the areas and some water kiosks have been put in place for the domestic use of the communities. The members pay Ksh 2 per 20 liters Jerri can. This water is only for domestic use and it is however still not adequate as people were seen queuing for long periods.

However, they sighted that the main problem is water for irrigation. This is because agriculture is their main source of income. They depend on rain fed agriculture. The rainfall pattern is very unreliable and in most cases once they get a good season and harvest, it take about 2 or 3 more years to get another good harvest. Most farmers in this area own 4-5 acres of land which is flat and good for irrigation. The soils are loam sand and well drained. The land is demarcated and title deeds are in process of being registered.

The communities said that they have been thinking of starting an irrigation scheme in the area but have lacked skills and expertise on how to actualize this. After a very interactive session, we concluded that the group is well organized and only need a boost into kicking off the activities of the irrigation scheme. A simple calculation showed that if every member

contributed Kshs. 1,000, then there would be a total of Kshs 9,000,000. These amount would be a good start for an irrigation project.

The members also informed the team that, in the same location the Masongaleni Irrigation Project which is funded through the Ministry of Water and Irrigation had stalled. They attributed its failure to lack of involvement of the community. They said that even the trenches were excavated by machinery hired by Government hence no lack of community participation. They expressed that they were ready to participate and fully own the project if they were involved from the beginning.

### **3. Conclusion/Recommendations by the SACDEP-Kenya Team**

It is possible to have an irrigation project in Ulilinzi Sub location but some deep study/survey needs to be undertaken to establish the following:

1. Can water flow by gravity from Athi river?
2. Should water be pumped using a diesel engine from River Athi or using renewable energy (turbines) or hydro turbines?
3. Whichever energy used, what size would be adequate for storage facilities. How many household can be reached?
4. Can we use electricity power from the nearest point at chuma-ini Market to River Athi?
5. As the river is next to a national park, will the group access a water permit from Government?
6. Is there any other option rather than River Athi for example boreholes?
7. Can the project be designed and implemented in phases?

Therefore, bearing this in mind, there was a recommendation for a more detailed feasibility study to be undertaken. The study will draw findings on the best intake point and how much water would be available for the target community. It will also help in producing some rough estimates of the costs envisaged for the kick off of such a project.

The report will then be used as a tool for fundraising for the project. SACDEP-Kenya is convinced that an irrigation project will make a huge impact towards contributing positively to food and agro income security of the Ulilinzi communities.

Report drawn by:

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**Position:**

**OUTREACH AND NETWORKING MANAGER**

**SACDEP-Kenya**

**On behalf of the EXECUTIVE DIRECTOR**