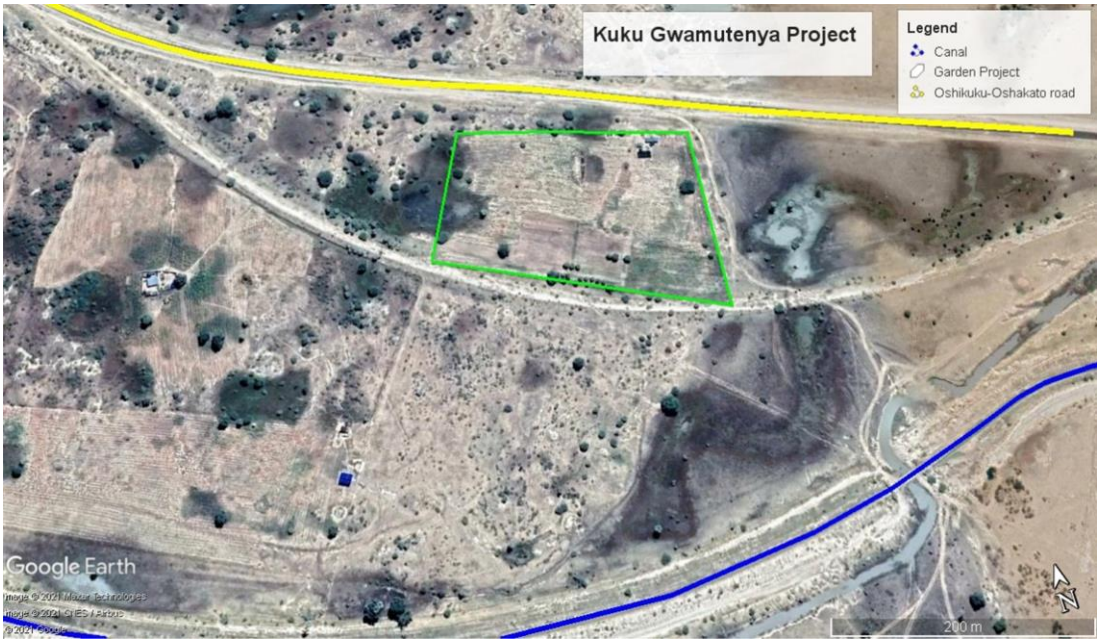
ENVIRONMENTAL SCOPING REPORT FOR PETER TSHILUMBU TSHEEHAMA GARDENING PROJECT - OSHIKUKU



Oshikuku constituency
Omusati region
Namibia

By: Lysias Uusiku

1. Introduction

Peter Tshiluba Tsheehama gardening project also known as Kuku GwAmutenya project is a 3.4 hectares in size and was established in 2005.

As required by the Environmental Management Act (Act No. 7 of 2007) and Environmental Impact Assessment (EIA) Regulations of 2012 (Government Notice No: 30), listed activities may not be undertaken without an Environmental Clearance Certificate (ECC). Therefore, the project members with assistance from Rössing Foundation (RF) have undertaken to apply for an ECC for their horticultural activities to the Environmental Commissioner under the Environmental Management Act 7 of 2007.

The project was established with the aim of producing quality horticultural produce and creating employment opportunities for the members.

The project is primarily producing maize, butternuts, tomatoes, cabbages, pumpkins, green pepper, watermelons and onions. More products such as carrots, potatoes, mangoes, lemons, spinach, cow peas and potatoes may be produced as the demand dictates.

The long-term objective of the project is to become the main horticulture producer in the North Central Regions of Namibia.

The project has a leadership committee made up of the members who oversee the day to day running of the project operations. The current committee members are:

I. Ms. Irja Malima: Chairperson
II. Ms. Sylvia Iita: Treasurer
III. Ms. Justina Iimene: Secretary
IV. Ms. Feni Shifugula: Member
V. Ms.Josephine Shinana: Member

2. The Roles and Responsivities of the board members:

Title	Roles and Responsivities
Chairperson	Leading the development and implementation of the overall
Treasurer	The Treasurer has a watchdog role over all aspects of financial
Secretary	The role of the Secretary is to support the Chairperson in ensuring the
Members	The Ordinary Members provide general support and advice on the

3. Project Profile

3.1. Project Location and Site Description

The project is located in Omusati region at Oshikuku village in the Oshikuku Constituency, approximately 4 km outside Oshikuku Town towards Oshakati on a C45 main road.

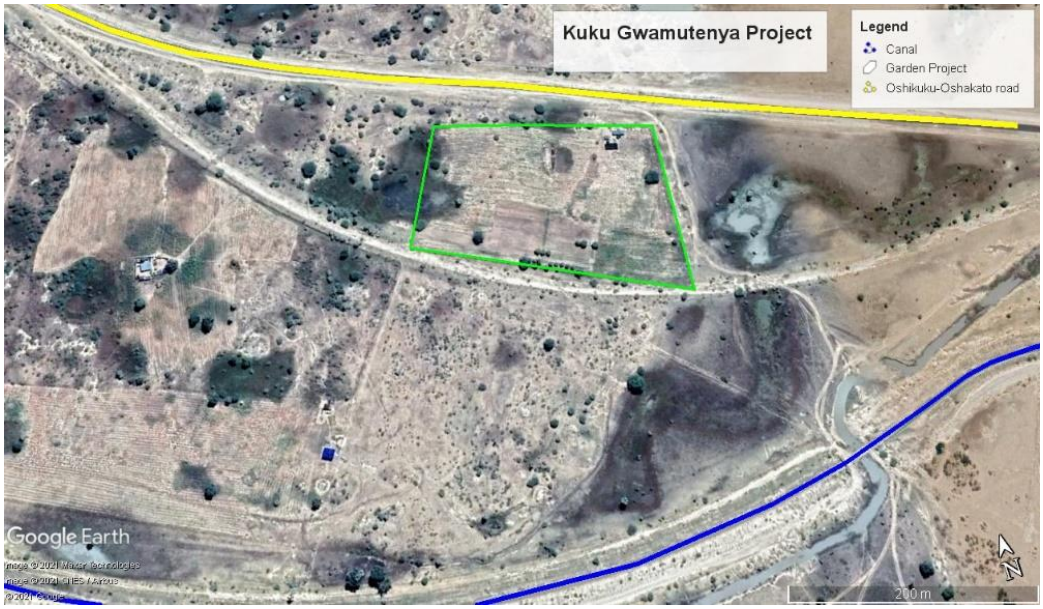


Figure 1: Kuku GwAmutenya gardening site

The total size for the project site is approximately 3.4 hectares and its easily accessible as it is adjacent to the main tarred road. The site area is situated in the rural area outside the Oshikuku town boundary and it surrounded by communal residential and subsistence farming units for both crops and livestock. The centre of the proposed site is at 17°39'59.50"S, 15°29'53.64"E.

3.2. Climatic Setting

The project site falls within the Cuvelai-Etosha Basin, which is covered by sedimentary deposits known as Kalahari and Namib sands (Schulz, 2014). As part of the CEB, the area usually receives rainfall in summer between October to April ranging between 250-300 mm/a. The mean annual temperature at range between 25° C to 36° C. The warmest months of the year are October to December, when mean daily maximum temperatures can rise above 38 ºC (Mendelsohn, Jarvis & Robertson, 2013).

3.3. Biodiversity and Ecology of the area

There are no key species observed in the surrounding area hence, the project site location in not significant in terms of national or international status (e.g. ramsar wetland, protected area or cultural heritage).

3.3.1 Fauna and Flora

A large proportion of the area has been lost by subsistence agriculture development. The surrounding is dominated by few thorn shrub species. There is no large wildlife observed except small mammals and reptiles (ground squirrel, rats, lizards) that utilize the site as their habitat. However, livestock were observed grazing in and around the areas since it is in rural setting.

3.4 **Utilization**

The land use of the surrounding area is mainly subsistence farming both crops and livestock. The project activities are the same and in conformity with the current surrounding land use and other land use around the site has not significantly alter the landscape.

3.5 **Surface and Ground Water Sources**

The project site is adjacent to a small shallow channel network of the Cuvelai Basin locally known as "*Oshana"*. The "Oshana" flows only during the rainy season usually when rainfall falls over the surround catchment and/or the whole catchment resulting in inundation. The Calueque-Oshakati NamWater canal passes behind the project site and it is used as the source of water for human consumption, irrigation as well as for cattle and small stock .

According to literatures, the project site lies on the Oshana multi-layered aquifer which is characterized by Kalahari and Namib sand as indicated in Figure 2~~Figure 2~~ . The groundwater within the vicinity is of no usable quality except that shallow groundwater at the depth of 30m yield freshwater to the hand dug wells which was utilized before the provision of purified portable water by Namibia Water Corporation (NamWater).

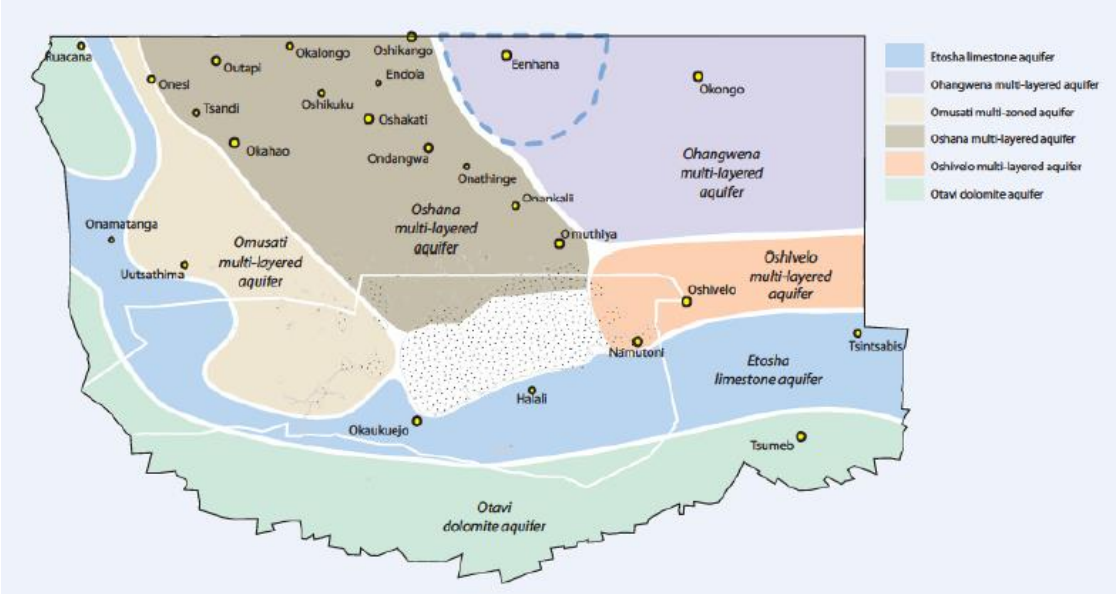


Figure 2: Groundwater resources (Mendelsohn, Jarvis & Robertson, 2013)

Groundwater in in this area is characterized by high TDS (total dissolved solids) that constitute mainly sulphates and fluorides. The brackishness of the groundwater prevents the community from utilizing this resource. There are no boreholes drilled in the surrounding due to poor quality groundwater, therefore the inability to use the groundwater resource makes it more vital for people to utilize the flood water that comes during the rainy season and purified piped water.

3. Physical Infrastructure Development

The project was founded in 2005 but it was abandoned as members got demoralized due to theft of products in the past as there was no caretaker at night. A new operational strategy was found in 2014 when negotiation for reactivating the project started. Currently, there is permanent security guard that is stationed at the project site to guard the garden and its properties. Three basics infrastructures were built on site; they are:

1. A corrugated sheet structure measuring 8 meters by 4 meters (storeroom and resident's house)
2. Four meters by 3 meters concrete block structure that serves as project administrative block.
3. An 8 meter by 5 meters nursery for seedlings propagation purposes.
4. A one meter by one meter pit latrine toilets (one for men and one for women) for sanitation purposes.

5. Water supply

The project site is located 800 meters from the permanent water canal where water is being pumped with a solar pump with little or no carbon footprint as opposed to petrol or diesel operated water pump. A water pipe was laid from the canal to the project site and it did not pass through any private property or hinder any human and livestock movement as it dug under the soil for about 0.5meters deep. The project has an agreement with NamWater to tap water from the canal.

4. Fertilizers and Pesticides

The surrounding community is farming with cattle and small stock, therefore organic fertilizers is locally available and used mainly to improve the soil fertility. The use of chemical fertilizers and pesticides will be discouraged and kept at minimum to lessen adverse impact of these chemicals on natural environment and biodiversity.

5. Waste Disposal

The unwanted plants products and residues that will be produced by the project will be incorporated into the soil as organic matter for recycling of nutrients and continuous improvement of the soil structure.

6. Social Construct

There are nine community members (8 females and 1 male) that are participating in the project and the projects has a strong support from the Constituency Councilor, Honorable Matheus Gabriel, the Constituency Development Committee and the Local Traditional Authority who are very influential in the respective communities.

7. Economic Resource

A large percentage of the Namibian population depends on agricultural activities for their livelihood. The projects have potential to be one of the economic growth activity and sources of improved livelihood for the Oshikuku community. The vegetables have a bigger market in the North Central such as supermarkets, hospitals, school hostels and so forth. Furthermore, the establishment of the Fresh Produce Hub in Ongwediva serves as a secured markets for fresh vegetables producers.

8. Conclusion and Recommendations

The findings reveal that the project has potential to become a source of improved livelihoods for the Oshikuku community and the surrounding areas with minimal negative impact on environment. The overall objective is to creates employment opportunities for locals residents and to contribute to reduction of poverty among rural dwellers. Therefore it is recommended for environmental clearance.

Report by

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9. Reference

Mendelsohn, J., Jarvis, A. & Robertson, T. 2013. *A profile and atlas of the Cuvelai-Etosha Basin*. Windhoek: John Meinert Printing.

Schulz, O. 2014. *Interactive water information and planning tool for the Cuvelai-Etosha Basin*. Windhoek: CuveWaters project.