

ADDRESSING THE NEGATIVE IMPACTS OF SAND MINING ON R. MALABA TO THE MINERS AND ENVIRONMENT IN TORORO DISTRICT

1. Preamble

Tororo District is located in Eastern Uganda at latitude of 00°1'N and longitude of 33°34'E. It is 1,194 Km² in total area consisting of 0.056 Km² of forest reserves. It borders with the Republic of Kenya to the East, Bugiri District to the West, Butaleja to the North and Busia to the South and Manafwa and Mbale to the North East. The District has two counties, one Municipality with two divisions, seventeen (17) rural sub-counties, two Town councils, two town boards, eighty eight (88) parishes and eight hundred and seventy five (875) villages. The District Headquarters is located in Tororo Municipality, which is at an altitude of 1,459.5 meters above sea level and 214km from Kampala City.

R. Malaba is one of the longest rivers in Tororo district crossing several Sub Counties of Kwapa, Mella, Malaba Town Council, Osukuru, Magola, Iyolwa and Nabuyoga and finally draining into Kyoga basin. It also neighbors Tororo District with the Republic of Kenya and shares district borders with Busia and Namutumba districts. The shores are also shared by wetlands of Malaba, Osukuru, Magola, Iyolwa and Nabuyoga. The watersheds of Kwapa, Mella and Malaba TC drain its waters into R. Malaba.

Tororo district has a total population of 540,430 (National Housing and Population Census, 2014). There are 280,329 females and 260,101 males with a sex ratio of 93%, which means for every 100 females there are 93 males. Close to 84% of the population lives in the rural areas and others (16%) reside at the urban areas. Of the total population 540,430 people in the district (Census of 2014), 30,726 people live in the Sub Counties where R. Malaba passes.

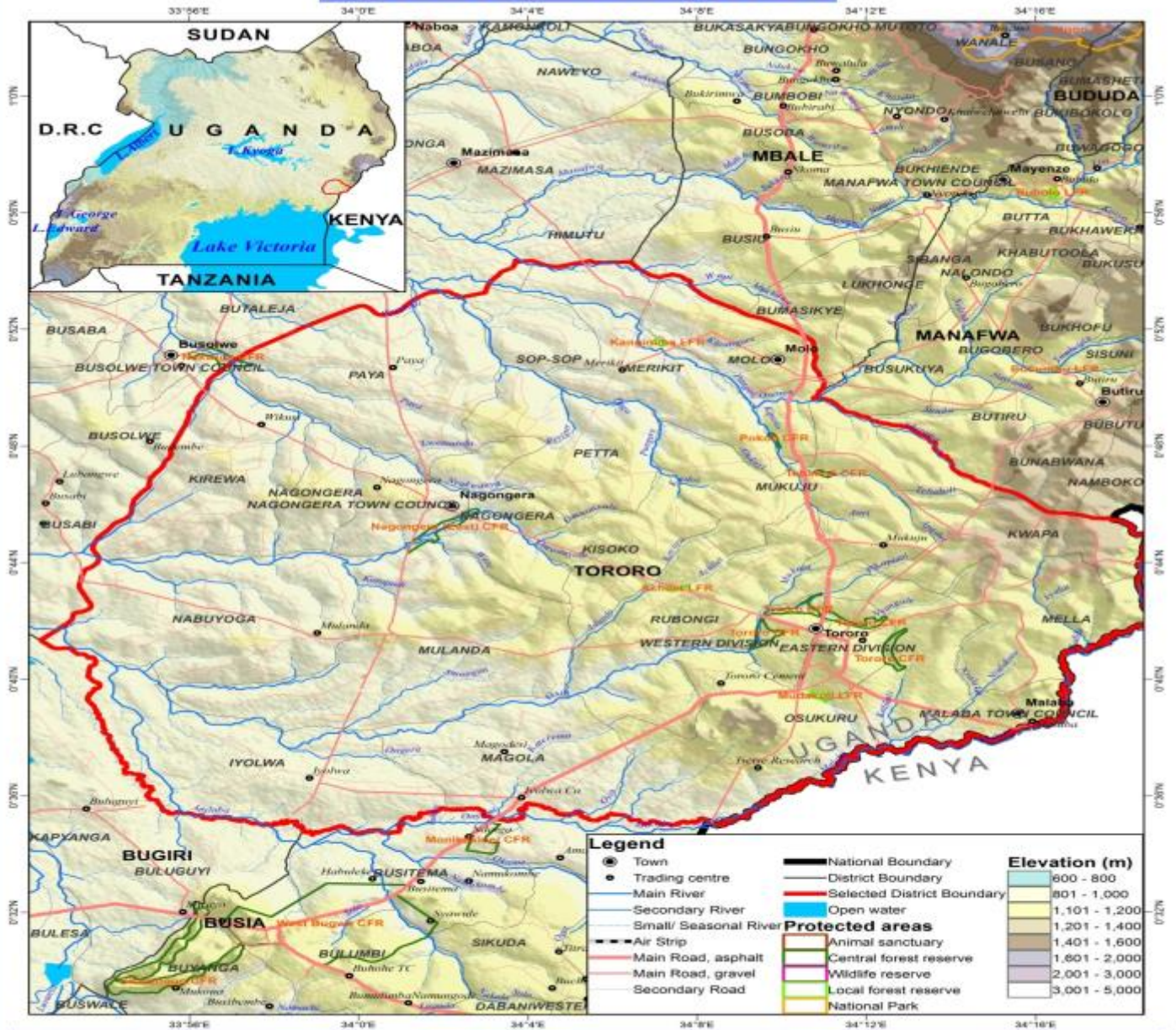
Population Distribution in Tororo District

SUBCOUNTY	HOUSEHOLD		POPULATION				
	<i>Number</i>	<i>Average</i>	<i>Males</i>	<i>Females</i>	<i>Total</i>	<i>Area (km²)</i>	<i>Population Density</i>
Kwapa	3802	5.3	9664	10331	19995	42.6	469.2
Malaba Town Council	4431	3.9	8658	9566	18224	14.8	1231.4
Mella	3439	5.5	9054	9841	18895	50.0	378.1
Osukuru	9154	5.0	23013	23599	46612	114.8	406.2
Iyolwa	3849	5.3	9855	10716	20571	89.6	229.7
Magola	3353	5.3	8559	9276	17835	60.7	293.8
Nabuyoga	5698	5.4	15112	15895	31007	90.8	341.7
Total	30,726						

2. Environmental Degradation in Tororo district

The most common forms of environmental degradation in Tororo district are; sand mining, conversion of wetlands into crop land, river bank encroachment along River Malaba, stone quarrying on Osukuru hill and deforestation leading to the disappearance off the tree species of Mvule which was planted by Kakungulu (see the map of Tororo district below).

TORORO DISTRICT



Data Sources

Open water, rivers: NFA (2008)
 Hillshade: SRTM 30m Resolution
 Protected areas: NFA + UWA (2009)
 Admin boundaries, infrastructure: UBOS (2014)

Datum
 WGS 1984



Projection
 UTM Zone 36N

Disclaimer
 This map is not an authority
 on delineation of International
 & other Administrative boundaries

Date: 5/05/2016



R. Malaba at Malaba Town Council

3. Benefits of R. Malaba

The river provides a lot of economic benefits to the people neighboring it where it is used to grow crops such as sugar cane, banana, yams, sweet potatoes, rice, maize among other crops. Adjacent communities use the water for fishing, fish ponds, watering animals, for domestic use and small scale irrigation during dry seasons. It is also used by National Water and Sewage Corporation to supply domestic water in Malaba, Tororo and Nagongera towns. A sugar factory located on Busia side also uses it for industrial purposes. Papyrus mats, palm trees and grass are also harvested by the communities for sale.

Sand mining is a big income generating activity along R. Malaba for both Uganda and Kenya communities. Because of the good quality of sand produced along the river, it is majorly used in Malaba and Tororo towns for construction and other construction activities such as factories and homes throughout the district. The new construction line for the Standard Gauge Railways will be supplied by sand obtained from R. Malaba since the line from Kenya to Uganda will pass over the river.

4. Impact of human activities on R. Malaba

Due to tree felling for agricultural land and settlement up stream, there is heavy erosion of the soils thus silting the river. R. Malaba is a habitat for many types of birds such as the crested crane, Guinea fowl and fish. During rain seasons crocodiles and hippos move through the water from L. Kyoga up to Iyolwa Sub County. This habitat is being lost due to degradation (agriculture and sand mining) leading to disappearance of fauna and flora as well as conflicts between the community of Iyolwa and crocodiles, hippos, baboons of Busitema forest.

Due to sand mining activities taking place along R. Malaba and given the high population of the users, the water quality and shore lines of the river have highly been affected through:-

- i. Siltation of the river
- ii. Diversion of the water course
- iii. Creation of ponds
- iv. Loss of habitat from fauna and flora destruction

5. Impact of sand mining on the miners

There are a number of health hazards associated with sand mining caused by direct consumption of the water, creation of stagnant ponds and non-use of protective gears and these include, among others:-

- i. Malaria caused by mosquitos breeding in the ponds created by the miners.
- ii. Diarrhea, bilharzia and other water borne diseases
- iii. Skin rash
- iv. Accidents
- v. In the long run, the productivity and livelihoods of the community will be compromised by disease burdens.

6. Interventions to improve human lives and R. Malaba ecosystems

If no concrete action is taken to stop degradation of R. Malaba ecosystem and improve the lives of the sand miners, then the population of Tororo will suffer from numerous diseases and

bodily harms as well as loss of the river ecosystems. More so, the people who derive their livelihoods from the river will lose those benefits.

This proposal is therefore intended to address the negative impacts that the sand miners have caused on the river as well as their effects on the humans. The human impacts on the river are likely to affect its flow from Tororo up to L. Kyoga and affect the health of the miners and people who are dependent on the river. The proposed interventions will cover 3 years for all the Sub counties in Tororo district through which the river passes and will be implemented as follows:-

- i. Create awareness on the benefits and dangers of degrading R. Malaba to the users (adjacent communities), politicians and technocrats of the Sub counties through which the river passes.
- ii. Build capacities of the sand miners on safety measures
- iii. Build capacity of (adjacent communities), politicians and technocrats of the Sub counties through which the river passes on the sustainable management of the watersheds and shore lines of the river through tree planting, wetlands management and urban waste management by Malaba Town Council Authorities.
- iv. Provide tree seedlings to communities to restore watersheds and R. Malaba banks

NB: Office space, staff and transport for implementing the project will be provided by Tororo District Local Government

7. Budget for implementing identified interventions for 3 years starting from FY 2017/18

No	Activity	Time frame	Amount /Shs per year	Amount/Shs for 3 years	Implementing persons
OUTCOME 1: Planned activities are properly coordinated and implemented					
	Operational costs and office running	FY 2018/19 – FY2019/20	12,000,000	36,000,000	DNRO and DEO
OUTCOME 2: Community knowledge and understanding of R. Malaba ecosystems management Increased					
	1,000 Community capacities built in 8 S/cs and Malaba TC on watershed, wetlands and urban waste management	FY 2017/18	15,000,000	15,000,000	DNRO and DEO in collaboration with CAO, DFO, DAO, Town Clerk Malaba, Politicians, CSOs and Communities
OUTCOME 3: Capacities of the sand miners built on safety measures and use of protective gears					
	600 Capacities of sand miners built in 8 S/cs and Malaba TC on safety measures and use of protective gears	FY 2017/18	11,000,000	11,000,000	DNRO and DEO
OUTCOME 4: Green vegetation/forest cover established along R. Malaba with well demarcated shores lines					
	50,000 tree seedlings procured per annum for 4 years for watershed, River Bank, wetlands and boundary demarcation marks	FY 2018/19 – FY2019/20	30,000,000	90,000,000	-do-
OUTCOME 5: Well managed restoration project of R. Malaba					
	Monitoring and Evaluation	FY 2018/19 – FY2019/20	8,000,000	24,000,000	DNRO and DEO in collaboration with UNDP, Ministry of Energy & Mineral Dev. NEMA, CAO, RDC, DNRO, DEO, DFO, DAO, Town Clerk Malaba, Politicians, CSOs and Communities
	Total/Shs			176,000,000	

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