

The presence of refugees in Garissa district and their impact on the environment-by Hubbie Hussein –Woman kind

Garissa district is the second largest district in North Eastern province and the 4th largest district in the republic. It covers an area of 43,931km² and has an estimated population of 500,000 people and the district is among the least developed in the republic due to its climatic and general environmental condition. It is classified as Arid and Semi Arid Land and categorized to be ecological zone. With a fragile environment 90% of its inhabitants are Somalis who are predominately pastoralists.

The refugee phenomenon dates back to the biblical times in December 1949 the UN general assembly established UNHCR and called upon all governments to cooperate with UNHCR in performing its functions. The Geneva Convention of 1951, the protocol of 1967 and OAU convention of 1969 all on status of refugees were conventions meant to provide for the protection of refugees internationally. Articles 2 and 12 of the Geneva conventions of 1951 on “General obligation” and personal status of refugees demand a refugee to be governed and conform to law and regulation of the host countries. Over half a million asylum seekers crossed into Kenya within a span of six months in 1991 after the disintegration of Somali national state in 1990 and the fall of the Marsabit regime in Ethiopia in 1991. This was further compounded by more refugees’ influx from war in Sudan. These forced the government to hastily establish transit centres and refugees camps at main entry points such as Moyale, Mandera, Liboi, Mombasa, Amuma and Hulugho. Four of the refugee camps were closed and their population transferred to the only two remaining main camps thus Dadaab in North Eastern Province and Kakuma in Turkana with a total populations of 130,000 and 110,000 refugees respectively. The refugee camps in Dadaab area are Ifo and Daghley in Dadaab division and Hagardera camp in Jarajilla division with a refugees population of 16,163 , 34,706 and 45,058 respectively.

The presence of these large population of refugees in Dadaab area of Garissa has invariably had adverse environmental impacts on these fragile ecological zone (v) ecosystem competition for scarce resources found in these environment by over 200,000 people both locals and refugees coupled with presence of large herds of livestock and wildlife impacted serious environment degradation of negative

magnitudes to Dadaab region trust land environment. The environmental impacts of these refugees has had multiple cause effect on this environment that can lead to irreversible land degradation and loss of biodiversity and economic value of the environment in Dadaab, Liboi and Jarajilla division and is rapidly spreading to the adjacent regions.

Population of refugees in Dadaab refugees by country sex and age.

Country	Sex	0-4 years	15 – 17 years	18 – 59 years	76 years	Total
Somalia	F	7448	21847	29653	1444	60392
	M	8075	24653	27322	1657	61657
Ethiopia	F	97	209	372	12	690
	M	85	253	623	18	979
Sudan	F	50	129	184	0	363
	M	63	165	753	1	981
Uganda	F	3	7	6	0	16
	M	1	2	33	0	36
Eritrea	F	2	0	8	0	10
	M	1	1	44	1	47
Congo DRC	F	0	0	0	0	0
	M	0	0	2	0	2
TOTAL		15,775	47,266	59,000	3,133	125,174

LAND

Land is a primary environmental resource that provides space and supports all biodiversity upon it land degradation renders this important resources economically valueless and unproductive limiting landscape for economic production proportionally lowers its ability to support that economic activity.

Dadaab, Jarajilla and Liboi division covers an area of 7074kms and 1783km respectively combined form approximate 1/3 of the district trust land available to support the local pastoral economy. The best dry land season grazing land referred to as RAMAGUDA falls in the heart of these three (3) divisions and because of its significance to the pastoral community the range land development project drilled boreholes and divided the area into grazing blocks.

The impact of the refugees on these resources has vehemently reduced the land space previously available to the local community to support livelihood. Each refugee camp

occupies 4km² of land devoid of vegetation as a result of using earth moving machines to pave way for refugee settlement. Former Liboi camp was occupying 2km² which is bare land with gaping pit latrines and silted communal water pans. Currently harvesting of live trees for FUEL WOOD is 10km away from the camps. While harvesting of live building material is 40km away from the camps. The actual land area surrounding the refugee camps that has been rendered valueless and unavailable for the utilization by the local pastoralists is 50km² and is soon spreading to 100km². Before the settlement of the refugees in Dadaab area the natural vegetation was relatively dense comprising of trees, shrubs and grasses that sustainably the pastoral economy. Most important trees/ shrubs, grass include acacia, spcordia, slimness, dalbergia, chloris etc. specific environment impact on vegetation by refugees in the trust land include:

1. comsite bush clearing to pave way for refugee settlement camps
2. Indiscriminate harvesting of natural vegetation for different uses
3. Fuel wood extraction for domestic and commercial purposes, most notorious being harvesting of live trees for fuel wood within vicinities of camps in the absence of lead fuel wood.

Harvesting of building materials include poles fitus and grass thatch, rafters etc harvested indiscriminately from natural vegetation by the refugees. It is well known fact the UNHCR, does (NOT PROVIDE TENTS) or shelter to the refugees. These refugees entirely depend on the surrounding natural vegetation for live building materials to construct their temporary shelters. These temporary shelter materials are perishable within six months due to the harsh weather conditions and vulnerably to highly destructive ants common in subject area. Let us take Hagardera camp as an example to estimate live shelter and material requirement of refugee in the camp from the surrounding trust-land environment.

1. Population of Hagardera- Camp refugees – 45,058

No of blocks in Hagardera camp – 9 blocks

Estimated average household in each sub-block e.g. block A = 100 households

Assume every household has six members and require at least 3 temporary shelters for accommodation and 2 temporary for resting and cooking purposes = 5 shelters.

Estimate tonnage of live building material for each temporary shelter 2 tones. Total tones of vegetation required per household in a block $1100 \times 9 = 9900$ tones.

Duration of this shelter is 6 months.

Estimated requirement of live vegetation for shelter materials per year = 9900 tones x 2 = 19,800. Duration of refugees in Dadaab area = 10 years. Total estimate live shelter materials harvested by all refugees in the three camps 198,000 x 3 = 594,000.

Harvesting wood carving materials are extracted from the natural environment surrounding refugee camps. Wood carvers are selective by targeting certain trees to meet market demands of their produce, the produce include walking sticks, tablets, Koran materials, domestic vessels, wood craft, the activity is posing a serious threat to some trees are feared to become extinct in these trust land environment. Some of the most threatened tree species include Kulan (sam), Hagar (som) Kuro (som) cordial imensis among others.

Harvesting of fencing materials activity prevent in refugee settlement area of the local trust land and is known to have immense environmental impacts in particular tree species. Almost all the refugee camps and UNHCR and supporting agencies compounds are fenced with commophora species. This activity has made this particular tree species in the environs of Dadaab refugee camp. A total of 640km is so far fenced with this particular type of tree which is triple layered. The cost of establishing one meter of this established hedges is 80/= into meter 640km = 640,000m

WATER

The only two permanent water sources in Garissa district are Tana River and Merti Aquifer to cater for both human and livestock demands. Others are surface pans that dry up immediately. To meet water demands for the 130,000 refugees in Dadaab area, UNICEF/ UNHCR dug a total of 24 boreholes in 1992/ 1994. A lone equipment with high discharge pumps operating for 14 hours a day and abstracting large quantity of volumes of water specifics impacts of refugees on this trust land resources include:

1. Destruction of water catchment area through deforestation
2. Over exploitation of the Mert Aquifer as the rate of the abstraction of underground water from the acquifer is not equivalent to the rate of recharge of the acquifer.
3. Lack of acquifer monitoring gadgets
4. Lowering of water table of merti acquifer at an alarming rate.