ARPN Journal of Science and Technology

http://www.ejournalofscience.org

Impact of Internally Displaced Persons (IDPs) on Natural Forests South Darfur (KASS locality)

[1]Abdulmotalib Osman Adam, [2] Dr.Ismail Mohamed Fangama.
[1] Assistant Inspector, Ministry of Agriculture and Forestry. South Darfur State.
[2] Department of Botany and Environment, College of Forestry and Range Science,
Sudan University of Science and Technology. Khartoum.

ABSTRACT

This study focuses on assessing the impact of the current internally displaced persons (IDPs) on natural forests in KASS locality in South Darfur State. The main aim is to gain an understanding of their link with the environmental problems, as well as to compare their livelihoods, activities, conditions, and work opportunities during conflict. Moreover, to identify their major problems and, to understand the causes of these problems and come out with recommendations. The objectives of the study are, to assess the impact of IDPs on the natural forests through the interaction of (IDPs) dealing with the natural resources and to establish some forests to re-compensate the removal ones. The primary data were collected using interviews, questionnaire and field measurement. Secondary data derived through relevant published books, reports, and internet website. The findings of the study reflect that, there are many IDPs, who are partially or completely depending on the forests as the main source of their energy, building constructions and livelihoods. Many people from camps are engaged in firewood collection, charcoal making and brick klin to earn income. The majority of the IDPs are illiterate, poorly educate and are rarely aware about removal of trees on environment and desertification.

Keywords: *Displaced, frequency, density, livelihoods***.**

1. INTRODUCTION

The Study area is located in KASS locality, in South Darfur State. Approximately 85 km Northeast Nyala, (CARE, 2004)[1]. It covers a total area of 85000 hectares (ha). It lies between latitudes $12^0 - 32^0N$ and longitude $12^0 - 32^0E$ (OCHA, 2009)[2] map 1. Its elevation is 400 m above sea level, (TEARFUND, 2007)[3]. The area featured with high and series of mountains interpreted with valleys and creeks,(Ministry of Agriculture ,2010)[4].

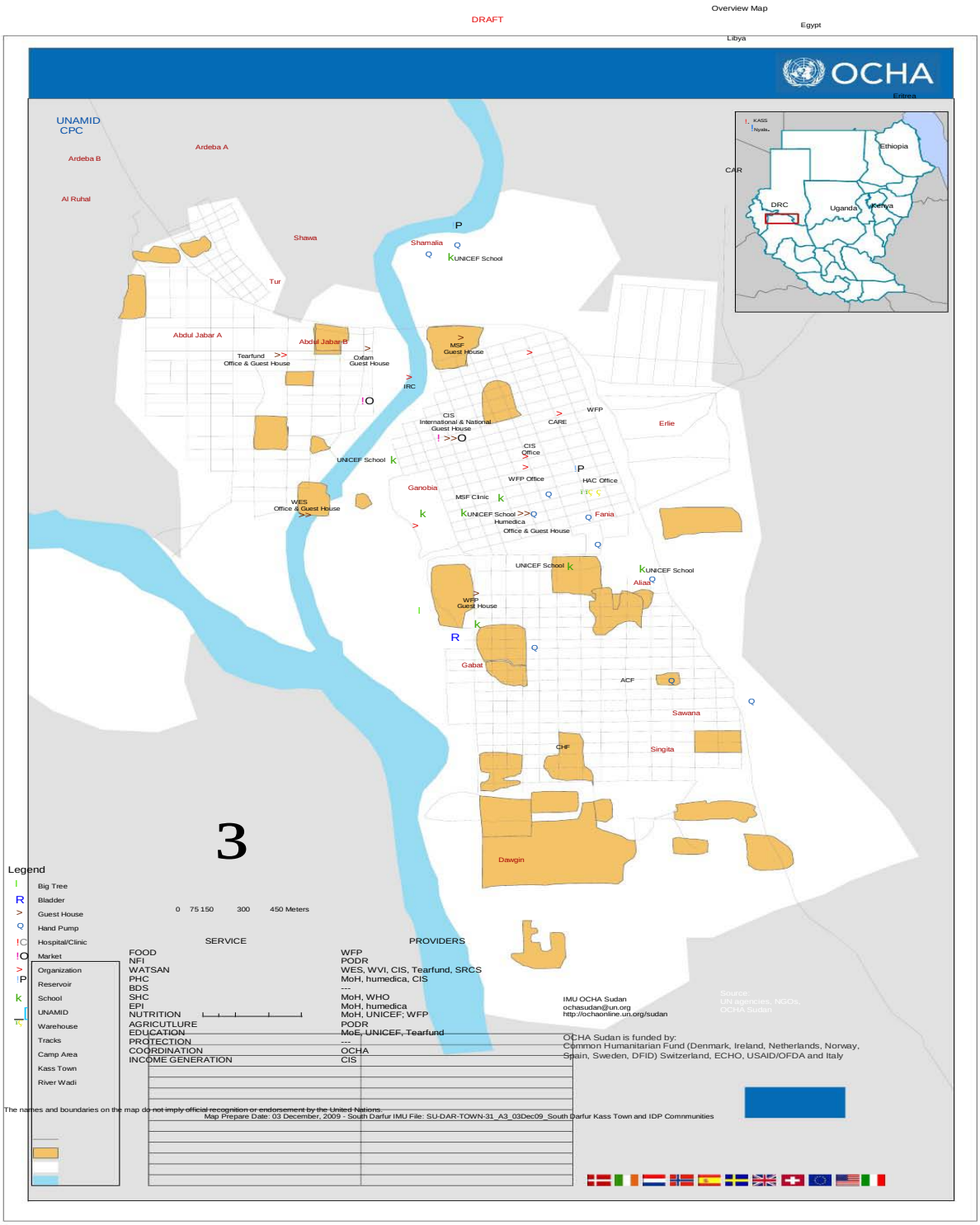
Savanna rich climate prevails in most part of the locality, beside the Mediterranean see climate in the foothills of Jebel Marra. Rainy season starts from July to October and the annual rainfall is 400 mm. Rainfall in Darfur has decreased over the period occurred around the time of sahelian drought of the late 1966s and early 1970s of the rainfall has never record to the level before this period. Also the more severe drought occurred in 1980s but recovery has taken place since then, with strong upward trend into the 1995s,(TEARFUND,2007). The temperature begins to rise in March until July and declines gradually from October to the winter season while at Jebel Marra area the temperature is moderate through the year. The wind is blowing northeast, very speed in winter from December to March which is carrying sands causing obstruction in the growth of shrubs and erosions ,(Ministry of Agriculture, 2010)

The soil is mostly high volcanic fertile with textures approximately between medium to crumbled and quoze are dominant,(Ministry of Agriculture ,2010) .The favorable conditions of KASS allow for the growth of hard timber trees species, Khaya seneglensis , Cordia africana , and Acacia species , Hyphaene thebaica, Borassus aethcopium, Balanities eagyeptiaca,(FNC, 2008)[5] . It was also reported in South Darfur, the supplies of Anogeissus leiocarpus have run out in KASS area, (UNEP, 2008)[6].

The total population in the locality is 365,000 persons114895 are internally displaced persons,(TEARFUND, 2007).The dominant tribe is Fur. The activities of the population are farmers and traders, IDPs depend on collection of firewood, charcoal making, forest products gathering, water selling, transport donkey carts and labour in brick making.

ARPN Journal of Science and Technology

http://www.ejournalofscience.org



1.1.6 Map1: Location of study area (KASS locality) Source :(OCHA, 2009)

ARPN Journal of Science and Technology

http://www.ejournalofscience.org

2. RESEARCH OBJECTIVES

The objectives of the study are to assess the impact of IDPs on natural forests and to suggest suitable recommendations that may contribute to reclamation of the degraded land.

3. MATERIALS AND METHODS

Secondary data derived from general survey to study the effect of (IDPs) on natural forests, the reasons and types of (IDPs) in other areas. Also the data collected from existing literature, papers, and textbooks. The justification of selection the area depends on its location of the camp near the natural forests where the activities of IDPs concentrated on and the population in the area is homogenous.

The original data were collected in the field with specific characteristics used several techniques, such as interviews and measurements.

a. Field Survey

Field visits were conducted by visiting the study area of Al Ruhal IDPs camp, in order to observe the existing vegetation cover. Preparation of facilities available such as communication and suitable time for the field visits. Demarcation the area utilized by IDPs including their all activities will be carried out. Some plates of photos for more explanations were taken.

b. Interview

Formal interviews were held with stockholders in KASS, FNC, and NGOs, older men, native people, community leaders (Umdas and Sheiks) and women in order to obtain historical background about present and the past of natural forest status, and the deforestation.

c. Measurements Of Forests

Randomly three stands were selected, and the three random points were also chosen. Using the Point Centered Quartered (PCQ) method for measuring the stands, (Kevin, 2007)[7]. Then compass, 100 meters tape, pencils, hand sheet, calculator etc…were prepared. Measurement started in the first stand by randomly determining the point at each stand. Then from the point stretched the meter tape to its full length, going through the random points. Ten points were taken at stretched along the tape. At each sample point four quadrants which were defined and then the following parameters were taken on each one.

i. Type of species.
ii. The distances from the sample point to the nearest tree.
iii. Density of trees species.
iv. Frequency.

A total sample size of 10 points (40 trees) in three representative stands were measured according to the (Kevin, 2007) after the collection of data, the density of all trees was calculated using the following formula:

$$\text{Density/ha} = \frac{10000m^2}{(distances)^2}$$

$where\ 10000m^2$ = ha

Distances = from random points to the nearest tree.

4. MEASUREMENT OF NATURAL FORESTS

a. Types and Frequencies of Trees

There are different types of trees scattered in the study area such as Faidherbia albida and Balanites aegypiaca. Also there are other trees observed such as Acacia seyal, Dichrostachys eineraa, Ziziphus spina-christi and Hyphaene thebaica. The dominant trees are Faidherbia albida, Balanites aegyptia and Ziziphus spina-christi which are equal to about 23.3%, 22.5% and 16.7% respectively.

Table 1: Types and frequencies of trees

Latin name	Arabic name	number	Frequency
Ziziphus spina-christi	السدر	20	16.67
Leptadenia heterophylla	العوير	11	9.17
Faidherbia albida	حراز	28	23.33
Acacia nubica	لعوت	6	5
Balanites aegyptiac	هجليج	27	22.5
Cassia obtusifolia	عشر	3	2.5
Caparous decidus	تندب	5	4.17
Hyphaene thebaica	دوم	4	3.33

ARPN Journal of Science and Technology

http://www.ejournalofscience.org

Dichrostachys eineraa	الكداد	7	5.83
Acasia seyal	طلح	2	1.67
Bichinia rufesens	الخروب	3	2.5
Acacia nilotica	السنط	2	1.67
Cassia obtusifolia	كول	2	1.67
Total		**120**	**100%**

b. Density of Trees

The density of trees is the number of trees per hectare, calculated by the formula mentioned below.The calculation give only one tree per/ha approximately. This means that the natural forests were subjected to heavy damage as said by (TEARFUND 2007). The continuous of their settlements in the area, the remaining trees will disappear (plate1).

Plate 1: Cutting Acacia nilotica for brick making.

Table 2: Measurement of distances of trees

Number of stand	Distances/m
1	474
2	349
3	413
Total	1236
Average	412

ARPN Journal of Science and Technology

http://www.ejournalofscience.org

5. THE OBSERVATIONS

Environmentally the eastern site of KASS locality without any vegetation cover seen. The depressions and slopes are being bare area. One may have never see any eagle flying in the air seeking for diet of snake crawling or small bird singing or flying. The wind is blowing sand and the dust suspends and falls No trees or grasses for domestic animals to graze or to shadow. The scenery of the area is very sad.

6. CONCLUSION

The study has demonstrated that, there is a link between displacement and the natural resources, especially natural forests around KASS locality.

The types of trees cover and density are influenced by the insecurity of population displacement. It is observed that there is a scarcity of trees. This problem is related to aid provision for displacement populations, because the level of assistance is scarcely received. As a result, displaced people in camp are forced to cut trees for establishing temporary dwellings, charcoal making and firewood.

7. RECOMMENDATIONS

i. Sustainable livelihood should be supported to reserve natural forests depletion.
ii. Provision of alternative energy source such as improved stoves, gases etc.
iii. Management of natural resources to meet the ongoing needs of the displacement people and host population.
iv. Urgent provide funding for the reforestation programmes.
v. Planting trees in order to mitigate depletion caused by use of fired bricks and other uses. 6- Retain trees of other vegetation to minimize soil erosion and to provide shade.

REFERNCES

[1] CARE,(2004): Care Sudan. Rapids Needs Assessment Report. South Darfur State Locations of KASS, Kailek, Kabum and Kalma Camp21st – 30th MARCH, 2004 eliefweb.int/.../0A487DF3B3841ACB85256E4B005D105D-ocha-sd.

[2] OCHA,(2009): United Nations Office for the Coordination ofHumanitarian Affairs KASS town and IDP communities South Darfur

[3] TEAR FUND.(2007): Darfur Relife In Avulnerable Enviroment funded by department for international development,UK government (DFID) for foreign disasters assistance, US government (OFDA) United nation high commission for refugees (UNHCR)

[4] Ministry of agriculture south Darfur KASS office, (2010): Final report

[5] FNC, (2008): Forest National Corporation, KASS office, general survey

[6] UNEP,(2008): United Nation Environmental Programme. Destitution, distortion and deforestation: The impact of conflict on the timber and woodfuel trade in Darfur. Postal Code 11111 Khartoum – Sudan Email: brendan.bromwich@unep.ch.

[7] Kevin. M,(2007): Quantitative Analysis by the Point-Centered Quarter Method, Department of Mathematics and Computer Science Hobart and William Smith Colleges Geneva, NY 14456 mitchell@hws.edu