

A Geography of Kondoa District

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Abstract:- This paper presents Kondoa District in terms of its geographical location, population size, population distributions, and population density, physical and human features of the district. The district profile is not extensively described and so, some of its features are not known. This paper briefly describes the district adequately. The methodology used is table research using only secondary data from various resources. Generally, the district is located in the central part of characterized by semi-arid climate. The large percentage of the population lives (90 %) in rural areas while a small number of them (10 %) live in urban areas. About 90 percent of the district residents engage in pastoral and crop cultivation. The district extensively experiences soil and deforestation because of the nature of climate and economic activities carried out there Also the drought, famine, and shortage of water is a common phenomena in the district.

Keywords:- *Kondoa, Geography, Features, Characteristics, Size, and Population.*

I. INTRODUCTION

Kondoa district is vulnerable to various hazards due to complex physical attributes which in turn affect the normal life of the most communities. The district located in semi arid region of which rainfall is not reliable at all and that affect the production of the population in the district. A part from that, a major economic activity carried out is mixed kind of agriculture in the kondoa district. Due to a physical attribute, the district experiences a multiple of hazards annually which render the communities at risk. The main hazards affecting the district include drought, deforestation, and Soil degradation, hunger, and pests in terms of frequency, severity, and impacts. All hazards facing the community sourced of the physical features of the district. The hazards are considered serious enough to license active and nonstop keenness.

The physical characteristics of the district are complex and also need clear understanding to address the said hazards. Understandings the physical features of the district mark the starting point of indulgent the sources of problems in terms of; extent, frequency, magnitude, location and communities capacity to those problems. Furthermore, understanding of the physical features of the district indicates the foundation of other institutions in addressing the district hazards and their mitigation measures. This is what motivated the researcher to write on physical features of kondoa district.

II. GEOGRAPHICAL LOCATION OF KONDOA DISTRICT

Kondoa District is located in the Northern part of Dodoma Region, and it is one of the seven districts forming Dodoma Region of Tanzania, 160 km from Dodoma town. The district has a total area of 13,210 square kilometers. It lies between latitude 4° 12` to 5° 38` south and longitude 35° 6` to 36° 2` East. Kondoa District shares borders with Babati in the North, Kiteto District in the East, Manyoni District in the South West, Singida District in the West and Hanang District in the North West. See the map below.



Fig 1:- Map of Kondo District Showing Administrative Boundaries

III. PHYSICAL FEATURES OF THE DISTRICT

Physical features include landforms, bodies of water, climate, natural vegetation, and soil. The district has the natural feature as described below.

A. Geomorphology and Geology of the District

The district is characterized by the presence of natural feature such Kolo Mountain, Irangi Hills and Plain land which mostly subjected to an internal process of the Earth. So folding is so common in some parts of the district, like Bumbuta, Kisaki, Mauno, Sakami, and Mlongia. The district has a small number of the river which mostly is seasonal in nature. The areas below the Kolo Mountain, experience

natural water streams flowing from mountain to low land and is a good source of water for domestic uses.

B. Drainage Patterns

The district drainage pattern is highly influenced by soil erosion which is dominant in the area. The Irangi Hills which are uplifted relative to the vast Maasai plain. The plain consist of several tectonic blocks; each block is tilted to the west. Frequent earth quakes indicate the relative uplift, faulting and lifting of Irangi Hills and still taking place. The drainage pattern of the district and the deposition of river sediments are directly influenced by morph tectonic. Where fault scarps occur, the large river has cut into the bedrock across the fault scarps and follow antecedents stream courses while small stream has been dammed,

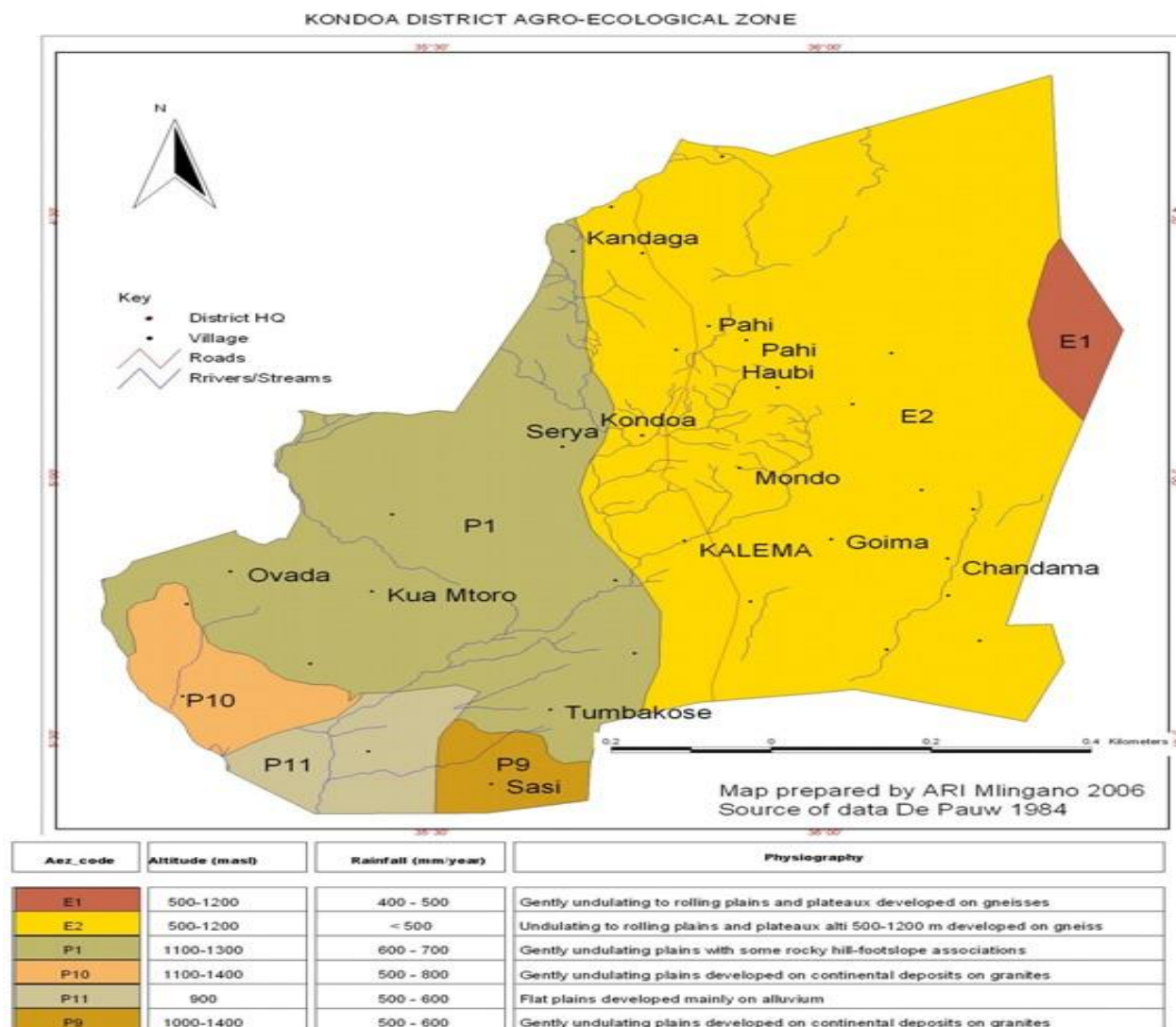


Fig 2:- Map of Kondoa District Showing Agro-Ecological Zone

C. Soil

The majority of soils in the semi-arid areas of central Tanzania originate from the granitic, gneissic and schistic parent material. These soils are of low fertility, base-exchange capacity, bulk density and water-retention capacity. These soils also have low organic matter content, a condition that makes them extremely erodible. The Kondoa District is severely affected by soil erosion. The soils in Irangi Hills are generalized as coarse loamy to sandy loams in texture, being sandiest in the surface horizon. This implies the need for proper management in order to sustain agricultural productivity (Kangalawe, 2012).

D. Natural Vegetation

The vegetation of the district comprises of a bush land with isolated bush grasslands. The total forest area in the district is 251,379 hectares. Central Government Forest has an area of 49,046 hectares and the natural forest has an area of 2,200 hectares while HADO forest conservation project

has areas of 125,600 hectares of forest (DEPRP, 2012). The district currently is facing the threat of environmental degradation that main caused by expansion of human activities and pressure of population growth.

IV. CLIMATIC CHARACTERISTICS OF THE DISTRICTS

The climate of Kondoa District is wet savannah characterized by a long dry season between late April to December and a short wet season between early December and April. The average rainfall ranges from 400 mm in the plateau and up to 1000 mm in the highlands. About 85 % of the annual rainfall, falls between early November and March with a long dry spell of approximately 30 days in February. The rainfall in the district is unevenly distributed; a condition that imposes a pattern of risk evasion in traditional agriculture especially in low land areas with fewer rains (DEPRP, 2012). See map 3 below.

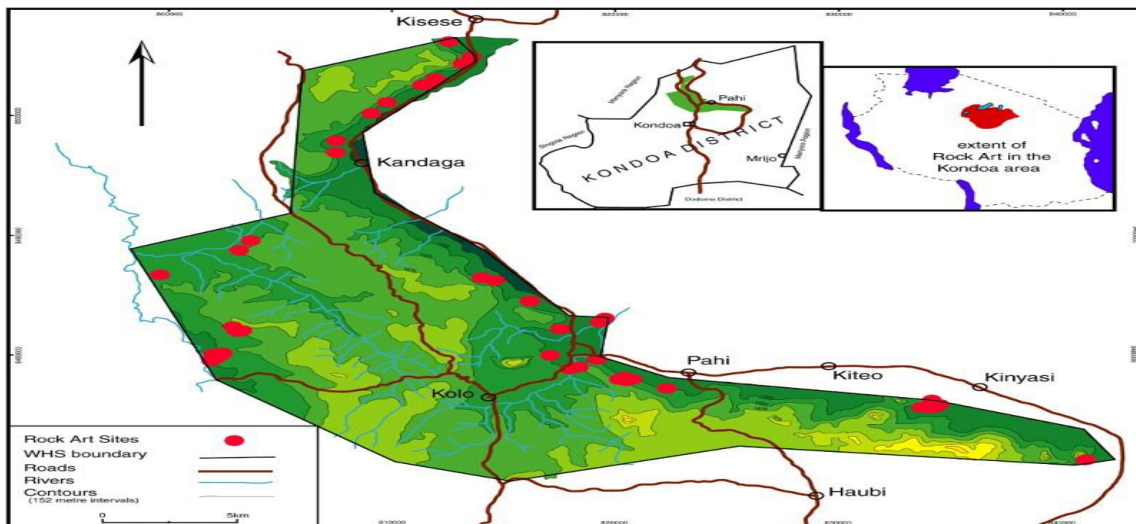


Fig 3:- Map of Kondoa District Showing Natural and Man-Made Features

The other aspect of climate is temperature. The temperatures and rainfall vary with altitude, where high altitude between 915 - 1,200 meters above sea level fall under mountainous zone with temperature ranging between 15°C - 20°C and rainfall vary from 900 - 1200 mm per annual.

Areas of low altitude including the rift valley zone experience high temperatures of 21°C - 30°C centigrade with unreliable rainfall normally ranging between 600 - 700 mm per annual. See figure 4 below;

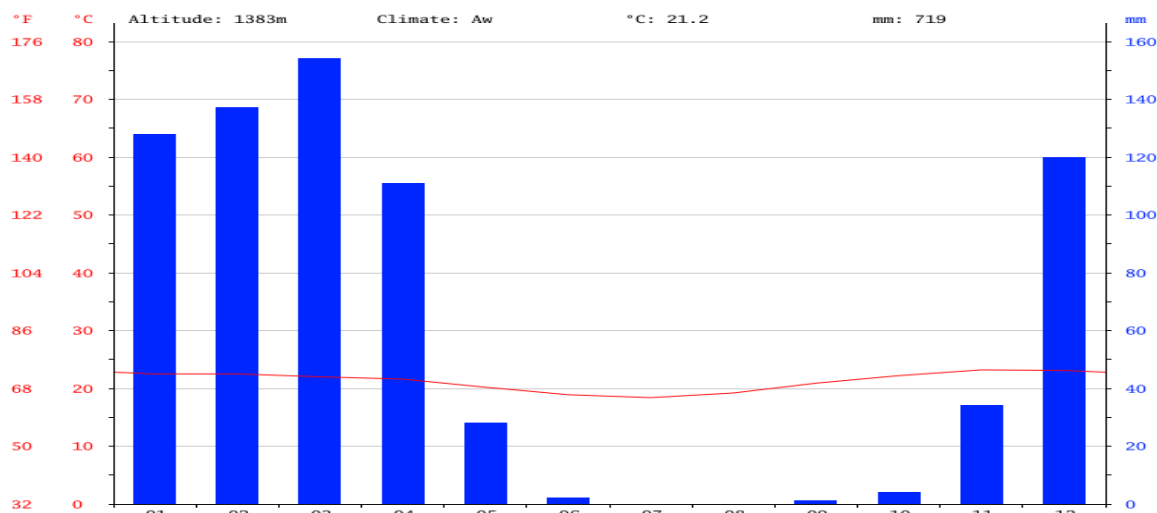


Fig 4:- Graph showing Average Climate of Kondoa District

Source: goo.gl/k4qkou

Wind systems, the district experiences the blowing of strong winds during the autumn season especially at plain areas, but also due to high deforestation wind blow at a very high speed due low friction layers, at mountainous areas where trees or forest exist the speed of the wind is small compared to the plain and deforested areas.

V. HUMAN GEOGRAPHY OF THE KONDOA DISTRICT

Human features are features that have been created or built by human beings. Some human features are the population size distributions and density. The human features of the Kondoa Districts are presented in the subsection below;

A. Population Size

Administratively, Kondoa District has 4 divisions namely Bereko, Pahi, Kondoa Mjini and Kolo. There are 28 wards and 108 villages in the district. The district has a total population of 269,704 people, whereby 136,518 (51 % of the district population) are females and 133,186 (49 % of the district population) are males, projected from 2002 census at an average growth rate of 1.7 % per annum. The average household size is 5 - 6 people living in the 103,346 households (DEPRP, 2012). This statistics of the district does not include current known Chemba district of which was part of Kondoa District. Thus, the population of the district by 2002 is great than the population in 2012.

B. Population Structure

The population structure of the district is a pyramid, where at low ages population is high and decline as ages increase. The evidence is shown below.

Age	Total	Female	Male
0-4	41,503	20,983	20,520
5-9	45,404	23,307	22,097
10-14	39,775	20,725	19,050
15-19	24,802	14,325	10,477
20-24	18,583	9,138	9,445
25-29	16,264	7,350	8,914
30-34	14,644	6,826	7,818
35-39	13,049	6,217	6,832
40-44	11,152	5,480	5,652
45-49	8,943	4,581	4,362
50-54	8,787	4,447	4,340
55-59	5,424	2,756	2,668
60-64	5,740	2,807	2,933
65-69	3,918	1,898	2,020
70-74	4,479	2,135	2,344
75-79	2,690	1,425	1,265
80+	4,547	2,118	2,421
Total	269,704	136,518	133,186

Table 1:- Kondo District Population Structure by Age and Sex in 2012
Source: NBS (2012)

The data above show that population structure of the district reflects the general structure of the population in Tanzania. The 47 percent of the district population is children below 15 years of age, while 47 percent of the district population is an active section in production (15 - 64 years) and 6 percent of the population in the district are aged from 65 years and above. The district has high fertility and

high mortality too, thus why the population structure is broad based. The dependence ratio is 53 out of 100 active populations, making a very high ratio. The active population should work hard to feed 53 percent dependent population in the district. The appearance of the population in the district is illustrated by figure 5 below;

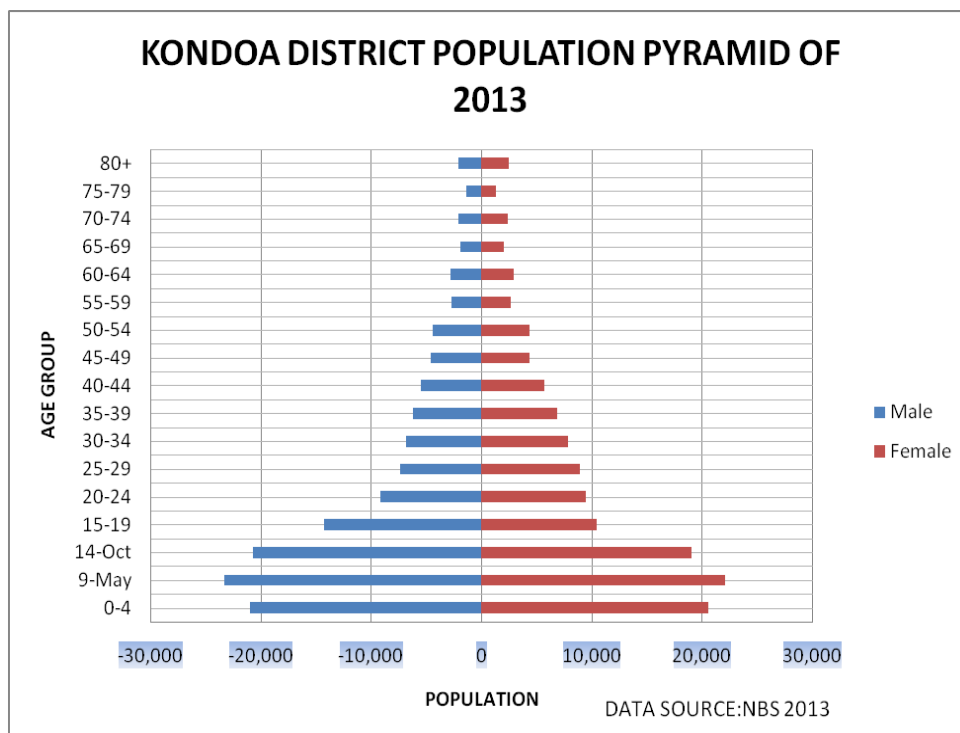


Fig 5:- Population Pyramid of Kondo District by Age in 2013

C. Population Distribution

Population distribution in the district is almost unevenly distributed because, out of total population of 269,704 of the entire district, 242,321 people live in rural and is equivalent to 90 percent and remaining 10 percent of the populations are living in urban areas of the district. So long large section of the population live in rural areas, the determinants of population distribution are; land fertile, trade and transportation. The others determinants are the availability of social services such as schools, health centers, water and land for grazing animals.

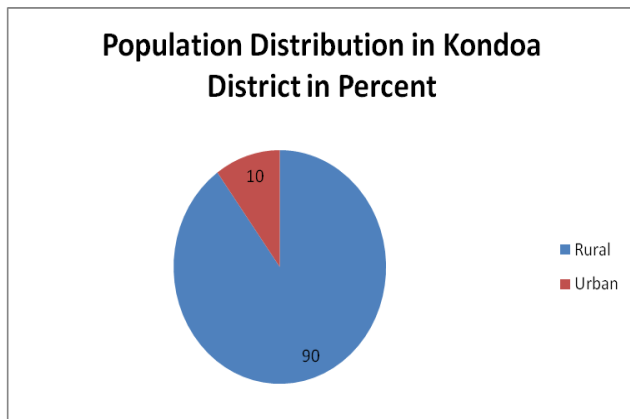


Fig 6:- Population Distribution of Kondoa District

D. Population Density

Since the district has a total area of 5,792.26 square km, population density is 46.6 in per/km square by 2012. This is high density because, the majority of populations in the district are mixed peasants, and they produce crops and at the same time keep animals. Since animal keeping needs huge areas for pastures, the district has been facing serious environmental degradation which caused by livestock keeping and population growth.

E. Economic Activities

The economy of the district depends mainly on crop and livestock production, thus 56.3 percent of the population is involved in farming while 35.3 percent is involved in the both farming and livestock keeping (agro-pastoralists). The district has the total arable land of about 1,362,648 hectares of which only 66 % of this area is suitable for agricultural production. However, only 30 % of this area (398,637 hectares) that is in actual agricultural production. Generally, the main crops that are cultivated include maize, millet, sorghum, and sunflower. Per capita income of Kondoa District has estimated 340,000 Tanzanian shillings (Tsh) (DEPRP, 2012).

F. Settlement Pattern

The district settlement dominantly linear type where a large portion of human settlements are located along the main road, for example, the road from Dodoma to Kondoa, Kondoa Arusha, Kondoa Babati and other. So the main determinants of settlement in the district are physical and social infrastructure. Some part of the district is characterized by hamlet type of settlement, especially in very remote areas.

VI. CONCLUSIONS

According to the findings from vulnerability for Kondoa District, drought, floods epidemics and pests are the main hazards that impact the normal life of most of the people and increase the district economic vulnerability. The essence of these hazards is determined through the risks that they pose to the entire population in the district. The main economic activity for the district dwellers is agro-pastoralist, accounting for more than 90 % population. Since drought and flood have been identified as the major hazards affecting the district, it follows that the agricultural sector is highly vulnerable with its associated aspects. This set up creates more complexities on rural economy and ultimately on rural economic vulnerabilities. The district had total arable land of about 1,362,648 hectares of which only 66 % of this area is suitable for agricultural production. However, it's only 30 % of this area (398,637 hectares) that is an actual agricultural production. The physical characteristics of Kondoa are complex that need complex approaches to address social, economic and environmental challenges facing the district. Also, the level of physical and economic vulnerabilities is very high demanding joint efforts of central government, local government, and community-based organization, non-governmental organization and international organization to address them.

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