

**ASSESSMENT OF THE LINKAGES BETWEEN POPULATION PRESSURE AND  
LAND USE PLANNING IN ARUSHA DISTRICT TANZANIA**

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**ABSTRACT:** This study examined the linkages between population pressure and land use planning in Arusha District, Tanzania. The study is specifically guided by three objectives which are 1. To examine factors leading to population pressure in Arusha District, Tanzania. 2. To describe the relationship between population pressure and land use planning. 3. To examine the effects of population pressure on land use planning, in Arusha District, Tanzania. The study used research design where by both quantitative and qualitative approaches were applied. Interview and Questionnaire were used to collect the information. Both qualitative and quantitative data collected analyzed and interpreted by using the statistical package of social science (SPSS). The study concludes that People are aware about the factors influencing population pressure. Factors for population pressure are rural urban migration and rapid economic development. The population growth affects long range planning of community health and medical facilities. While efforts to provide land use planning management is good. The communities are well educated and informed on land use planning in their respective area. The government of United Republic of Tanzania should help people in attaining the land for settlements by giving support where appropriate place can establish settlement in order to reduce the influx of number of people in a small area. The

Municipal Council of Arusha should educate its people on the effects of poor land use on the development of nation. People should be allocated the proper areas that can use for their daily activities in order to promote development. Community members must protect land resources by avoiding improper use that destruct the land fertility that can affects the future generation. People must know that land is fixed asset that to destroy means to affect the life of living organism. Thus, in order to ensure prosperous life, land must be used properly. Departments responsible for land in county should offer important education to the people on how to protect land resource in order to ensure its strengths that can influence the development of social economic activities in the country. On-Government Organizations must cooperate with the municipal council of Arusha in ensuring that community members are getting education on how to protect land resources that can support the life of people in the nation. The further researchers are suggested that there is need to find out the contribution of population pressures towards social and economic development in Tanzania.

## **1. INTRODUCTION**

### ***1.1 Background of the Study***

Population pressure is now becoming a global phenomenon and its consequences is more pronounced in all over the world. In 1950, five years after founding of the United Nations, world population was estimated at around 2.6 billion people. It reached 5 billion in 1997 and 6 billion in 1999. In October 2011, the global population was launched to mark this milestone. The world's population is expected to increase by 2 billion persons in the next 30 years, from 7.7 billion currently to 9.7 billion in 2050 and could peak nearly 11 billion around 2100. It accompanied by major changes in fertility rates, increasing urbanization and accelerating migration (United Nations, 2019).

In developed countries, China and India are most populated countries in the world. 61% of the world's population lives in Asia (4.7 billion), 17% lives in Africa (1.3 billion), 10% in Europe (750 million), 8% in Latin America and the Caribbean (650 million) and Oceania (43 million). China has (1.44 billion) and India has (1.39 billion) remain the two largest populated countries in the world. They present 19%

and 18% of the world's population. India is projected to overtake China as the world's most populated country while China's population is projected to decrease by 31.4 million or around 2.2% between 2019 and 2050 (World Population Prospects, 2019).

In Africa, more than a half of global population growth between 2021 and 2050 is expected to occur. A rapid population increase in Africa is anticipated even there is a substantial reduction of fertility levels near future. Regardless of the uncertainty surrounding future trends in Africa, the large number of young people currently on the continent, who will reach adulthood in the coming years and have children of their own, ensures that the region will play a central role shaping the size and distribution of the world's population over the coming decades (UN, 2019).

Land use is one of the major conflict issues in most African countries. In Tanzania, the high population pressure coupled with concerns on climate change puts an extra pressure on land use sustainability. As a means to reconcile socio-economic development, land justice and nature conservation, land use planning has been put high on the country's agenda. Less than 15% of Tanzanian's villages have land use planning and there is a need for technological advancement to speed up planning processes without undermining the quality of the plans. To overcome these challenges, Private Forestry Program (P.F.P) from Finland collaborates with National Land Use Planning Commission of Tanzania (Salla and Andrew, 2018).

There are 33 urban local government authorities in Tanzania mainland that include town, municipal and city councils. In total those urban councils were hubs of 30% of total Tanzania population. These urban councils are categorized into four main clusters, Dar-es-Salaam that is the largest city composed of 4.4million residents (10%) of national population. Other urban councils' population range between 0.3million – 0.8million residents, these include Mwanza, Arusha, Dodoma, Mbeya and Morogoro (Worall, 2017).

## **1.2 Statement of the Research Problem**

When and why did the world population grow? And how does rapid population growth come to an end? These are the big questions that are central to this research. The world population increased from 1 billion in 1800 to 7.7 billion today (Roser,

2019). There are factors that contribute to the rapid population growth to the world. Among of those factors are life expectancy, improving health lead to falling mortality rate and its there for the factor that increases the size of population. Life expectancy, which measures the age of death, has doubled in every region in the world. Another factor is age structure, is the proportion of a population in different classes. Models that incorporate age structure allow better prediction of population growth, plus the ability to associate this growth with the level of economic development in a region. Countries with rapid growth have pyramidal shape in their age structure diagrams, showing a preponderance of younger individuals, many of whom are reproductive age. Other factors are Fertility rates, Child and infant mortality rate (Max, 2019).

Also land use has significantly changed during the past decades. Historically the driving force for most of land use change is population growth. Rapid population growth is often used as proxy for land use change, but at lower scale, a set of complex drivers are important too. Increasing in demand on foods as a result of population growth has created more pressure on land resource. Objectives for land use changes differ between developed countries and developing countries. In developed countries land use change is based on economic reasons such as large farming scale, urban development and increasing needing to conserve biodiversity and environmental quality for current and future generations. Whereas in developing countries, rapid population growth, poverty and the economic situation are the main driving forces (Yaser and Muna, 2016).

### **1.3 Research Objectives**

#### **1.3.1 General Objective**

The general objective of the study was Assessment on the linkages between population pressure and land use planning in Arusha urban District, Tanzania.

#### **1.3.2 Specific Objectives**

1. To examine factors leading to population pressure in Arusha Urban District, Tanzania.

2. To describe the relationship between population pressure and land use planning in Arusha Urban District, Tanzania.
3. To examine the effects of population pressure on land use planning in Arusha Urban District, Tanzania.

#### **1.4 Research Questions**

The study guided by the following questions;

1. What are the impacts of population pressure on land use planning at Arusha urban District, Tanzania?
2. What is the relationship between population pressure and land use planning at Arusha Urban District, Tanzania?
3. What are the effects of population pressure on land use planning at Arusha Urban District, Tanzania?

#### **1.5 Significance of the Study**

The study aimed to be important to the Local Government Authorities on the effects of population pressure to the land use planning and environment in general. The study also is important as it can use the posed recommendations in order to improve the system of land planning in Arusha urban District, Tanzania and reduce or eliminate challenges which impact the system such as population pressure. Also this study will help to reduce the challenges impacting land use planning and make an improvement on land use planning in some of the parts hence the municipality to perform well.

#### **1.6. 4 Conceptual Framework**

Conceptual framework is a written or visual presentation of an expected relationship between variables. The consistent and comprehensive theoretical frame work. The diagram illustrates relationship between the independent (Bruce, 2018)

CONCEPTUAL FRAMEWORK SHOWING RELATIONSHIP BETWEEN VARIABLES

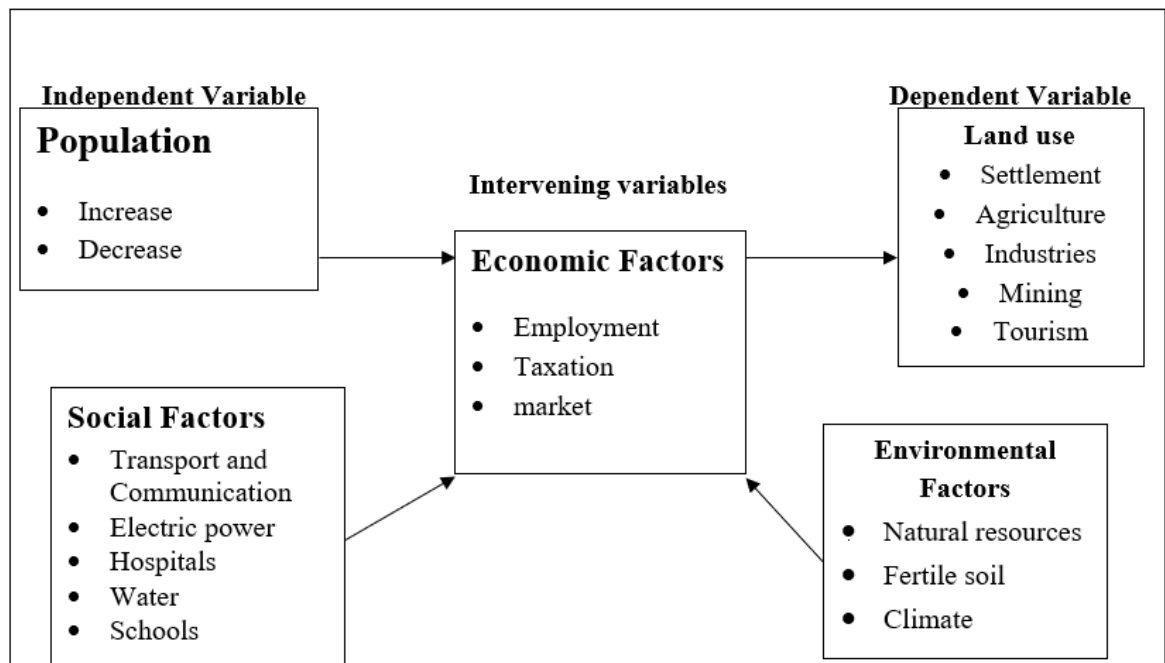


Figure 1.1. Conceptual Framework  
Developed by; A researcher (2021)

If there are enough economic factors, social factors and environment by looking proper land use the population will rapidly increase, but if there are lack of economic factors, social services and environment on land use planning there will decrease on population in that particular area.

## 1.7 Scope and Delimitation of the Study

The study is limited to the assessment of the linkages between population pressure and land use planning in Arusha urban District, Tanzania. The study is widely affected many parts of the Tanzania especially major cities like Dar es Salaam, Mbeya, Mwanza and Morogoro, where population pressure is becoming a big challenge on land use and the environment at all. Arusha District is taken as case study due to the reasons that, the place is conducive of doing research due to the fact that population is growing rapidly in most wards of Arusha District like Sombetini ward, Simanjiro ward, and other wards found in Arusha District. Therefore Arusha District is taken as the case study representing the rest of Municipals in Tanzania.

## **INTRODUCTION**

### ***2.0 Literature Review***

This chapter consists of both theoretical review of the previous studies on assessment of linkages between population pressure and land use planning in Arusha urban District, Tanzania. This chapter will begin with definitions of key terms and explanations of different theories related to the study. The review of literature is done for the aim of ascertaining what has been researched by other scholars and identify knowledge gap which is going to be covered by present study.

### **2.1 Operational Definitions of Key Terms**

#### ***2.1.1 Population Pressure***

Is an increase in number of population that reduces the ability of an environment to support the population. Population pressure influenced by the following factors; economic development, level of education, social and cultural factor, female labor market participation, immigrants' level and others. The rapid population increase affects the need increase of community on the land. Such condition directs to the apprehension in which the agricultural land is probably narrowed because of the massive conversion to the new land use, such as settlement or other more profitable land use (Merrian, 2021).

#### **2.1.2 Land Use Planning**

It involves the allocation of land to different uses across a landscape in a way that balances economic, social and environmental values. Its purposes is to identify, in a given landscape, the combination of land use that is the best able to meet the needs of stake holders while safe guarding resources for the future. Effective land use planning provides direction on the manner in which land use activities should take place and encourages synergies between different uses (FAO, 2021).

### **2.3 Theoretical Review**

#### ***2.3.1 Demographic Transition Theory***

Demographic transition theory suggest future population growth develop along predictable four stage model. In 1<sup>st</sup>stage (birth, death and infant mortality rate are all

high, while life expectancy is short). In 2<sup>nd</sup> stage (where birth rates are high while infant mortality rate and death rate drop). In 3<sup>rd</sup> stage (occurs when society is thoroughly industrialized: birth rates decline, while life expectancy continues to increase and death rates continue to decrease). In 4<sup>th</sup> stage (we see the postindustrial era of a society, birth rate and death rates are low, people are healthier and live longer and society enters a phase of population stability (Bartley, 2021).

So, the demographic transition theory trying to describe how population of a country changes over time. It gives changes in birth rates and death rates and shows that countries pass through five stages of population change. (Stage one, high fluctuation), (stage two, early expanding), (stage three, late expanding), (stage four, low fluctuating), and (stage five, decline) (Bartley, 2021).

#### **2.3.1.1 Strength of the Theory**

Is a universal concept, therefore being able to be applied to every country in the world, also the theory shows changes over time and can be seen as a predictor, we can use the model to predict the future problem of demographic changes and to solve those problems especially by establishing better plans especially on land use planning.

#### **2.3.1.2 Weakness of the Theory**

The model fail to include the role of government, some government may put a antenatal or prenatal operations to increase or decrease birth rate within a country, therefore countries like China that are antenatal and have one policy of one child put in place, and countries like UK which are prenatal and offer a child benefits may show fluctuations of the birth rates in stages it should be decreasing or increasing.

#### **2.3.1.3 Relevance of the Theory**

The theory is relevance to my study because it help to predict the future problem of demographic changes and to solve those problems especially by establishing better plans especially on land use planning.



### 2.4.2 Empirical Executive Summary

| Author     | Year | Theme   | Strength  | weakness   | Relevance of the study  |
|------------|------|---|---|--|---|
| Mandal     | 2017 | Role of human actions to the dynamic in land use.       | It success to explain the roles of human population activities which have an impacts to land use.           | It fails to explain the solutions of human activities on land resources.                               | It relative to objective 3: to examine the effects of population pressure and land use planning.                                    |
| Zhong      | 2018 | The role of population expansion on soil quality.       | The theory has given out how population expansion affects land example land degradation and soil fertility. | The theory failed to show the role of government on overcoming the over utilization of land resources. | It relative to objective 2: to describe the relationship between population pressure and land use planning in Aruha urban District. |
| G. Shivani | 2020 | Impacts of human population on global land use pattern. | It succeed to explain how population growth brought an impacts on land use pattern                          | It based mainly on agricultural land use and ignore other land use pattern like settlement land use.   | It relevant to objective 3: to examine the effects of population pressure on land use planning in Aruha urban District.             |

| <b>Author</b> | <b>Year</b> | <b>Theme</b>                                     | <b>Strength</b>  | <b>weakness</b>  | <b>Relevance of the study</b>   |
|---------------|-------------|--|--|--|---|
| Bartley       | 2021        | The role of future population growth development | It succeed in explaining the role of population expansion on land use planning | It based on future generation only rather than present generation        | It relevant to objective 1: to examine factors leading to population pressure in land use planning in Arusha urban District.          |
| Michael       | 2020        | Spatial arrangement and settlement pattern       | It offers explored how land use is related to population structure             | It was based on American city and it has limited applicability elsewhere | It relevant to objective 2: : to describe the relationship between population pressure and land use planning in Aruha urban District. |
| Peterson      | 2017        | The role of Population in Economic Growth        | It shows the role of population in economic growth                             | It based much on economic factor than other factors like social factors  | It relate to objective 3  |
| Author        | Year        | Theme  | Strength   | weakness   | Relevance of the study  |
| Opeoluwa      | 2021        | Impacts of Population Growth in West Africa      | It succeed on explaining the impacts of population growth                      | Limited or based in West African only                                    | It relate to objective 3: to examine the effects of population pressure on land use planning in Aruha urban District.                 |

|             |      |  |   |   |   |
|-------------|------|--|---|---|---|
| Hailemariam | 2016 | Implementation of the population policy                    | He succeed in implantation of population policy in Ethiopia.                | It is limited, introduced and practiced to Ethiopia only. | It related to objective number 1: to examine factors leading to population pressure in land use planning in Arusha urban District   |
| Pettinger   | 2019 | Factors that affect Population Size and Growth             | It shows factors that affect population size and growth.                    | Its not applicable in all countries.                      | It related to objective number 1: to examine factors leading to population pressure in land use planning in Arusha urban District   |
| Author      | Year | Theme  | Strength  | weakness  | Relevance of the study  |
| Mishra M.   | 2017 | Impact of population pressure on environmental degradation | It offers explored about the impacts of population pressure on environment. | Limited or based in West African only                     | It relevant to objective 2: to describe the relationship between population pressure and land use planning in Aruha urban District. |

## RESEARCH DESIGN AND METHODOLOGY

### 3.1 Introduction

This chapter contains the research design and methodology comprising of the research design, description of the study area, population and sampling, data collection procedures, data analysis procedures and ethical consideration.

### 3.2 Research Design

The research design refers to overall strategy that is to choose to integrate different components of the study in a coherent and logical way, help to ensure effectively address the research problem; it constitutes the blueprint for collection, measurement and analysis of data. The function of a research design is to ensure that the evidence obtained enables to answer the initial question as unambiguously possible. The study used research design where by both quantitative and qualitative approaches will be applied (Eco, 2018).

### 3.3 Description of the Study Area

#### 3.3.1 Location of the Study Area

The study was conducted in Arusha urban District, in Tanzania. Arusha city is located northern East of Tanzania. Nestled at the base of Mount Meru, is the third largest city in Tanzania. It is also known the ‘Geneva of Africa’. Is one among of growing fastest city in Tanzania, and the best tourist attraction in East Africa. On 2020 Arusha had a population of 493,000. Administrative structure of Arusha city, it has 3 divisions namely Themi, Elerai and Suye, which is sub divided in to twenty five wards 25 wards, and 154 streets

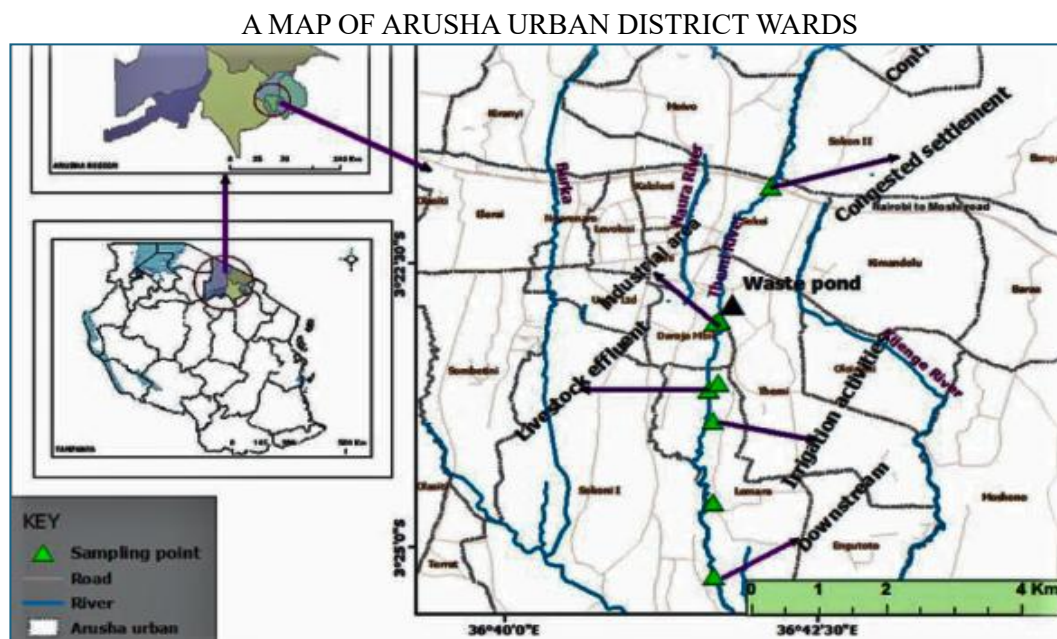


Figure 3.1: Arusha urban District Wards Map  
Source: Adopted and Modified from Google (2021)

### **3.3.2 Weather and Climate**

The city experience two rainy seasons, in which short rain are between October and January and longer rains are between March and May. The temperature is characterized by warm and cold temperature ranging from 17C to 34C the rest of the year is warm (MDC,2016).

### **3.4 Population and Sampling**

According to Eco (2018), Sampling is the selection of subset (a statistical sample) of individuals from within a statistical population to estimate characteristics of the whole population. Statisticians attempt for the sample to present the population in question. Sample is a set of data collected or selected from a statistical population by defined procedures. The sample usually represents a subset of manageable size. Samples are collected and statistics are calculated from the sample, so that one can make inferences or explorations from the sample of the population (Yhidego, 2017)

#### **3.4.1 Description of Sample Procedures**

I used simple random sampling during data collection, the sample consisted Households, Ward Executive Officer, Environmental Officers in which they represented the members of the whole population.

#### **3.4.2 Sample Size**

Sample size is a group of subjects that are selected from the general population and is considered a representative of the real population for that specific subject. Sample size help in prediction for example if we want to predict how the population in a specific age group will react to a new product, we tested the sample size that is representative of the targeted population (Omnicom, 2020).

Professor Glenn Israel give a formula for sample size, it described below;

$$n = \frac{N}{1 + N(e)^2}$$

Where by:

n= sample size

N= Total population e= percentage of the error rate

### **3.5 Data Collection Procedures**

Data collection is the process of collecting information or data on topic of your interest. The research project emphasize on collecting data from the households, ward executive officer and environmental officers and it involved the collection of both primary data and secondary data through observation, focused group discussion, interview and questionnaire.

### **3.6 Source of Data**

#### **3.6.1 Primary Data**

In the collection of primary data methods which are used to generate information are observation, questionnaire, and interview. Generally primary data involved the collection of raw data from the field area also through the involvement of participants linked with the proposed topic (Eco, 2017)

#### **3.6.2 Secondary Data**

Secondary data are data collected on the basis of previous data or research, which were including under the secondary data collection method. Or is the data that have been already collected by and readily available from other sources. Several types of approaches used such as case study, documentation review, articles and project. In the case study approach of the secondary data collection method, research collects the data from annual reports, analyzed information which is available on websites of the particular organization. For collecting information under secondary collection method, published and unpublished documents are used by researcher. Examples of

published documents are report of the firm, government publications, newspapers and journals. Researcher findings, unpublished material, unpublished findings are considered as unpublished source to collect information (Eco, 2017).

### **3.7 Data collection Techniques**

#### **3.7.1 Interview**

Interview is the best technique of obtaining data. Interview is a conversation between two individuals with sole purpose of collecting relevant information to satisfy research purpose. It involves conversation between interviews the one who asking questions, and interviewee the one who answering the questions (Quentenin, 2020). This method is very important because it involve both literates and non-literates hence collecting data which are relevant to the research study. Also, can be conducted through phones, websites hence to save time.

Some disadvantages of this method sometimes were difficult to get information because of weather condition like heavy rain, storms, another challenge is language barrier. Also interview bias can hinder collection of accurate data. Another challenge cannot collect data from different respondents in different areas. If an interview fails to obtain data for my research topic I have used questionnaire method of data collection. Interview will help on describing relationship between population pressure and land use planning.

#### **3.7.2 Questionnaire**

Questionnaire can collect enough data from many respondents from different areas within a country or region, also the bias of interview is avoided because the researcher doesn't know who went to answer the questions. Challenges of questionnaire is that , it selective because it involve literate people , also some questions may be answered incorrectly because of misunderstood of the questions so to solve this challenges I used also interview method of data collection. This method helped to examine the effects of population pressure as my research objective number three.

#### **3.7.3 Observations**

Observation is a way of gathering information by watching behavior, events, or noting physical characteristics in their natural setting. Observation can be Evert

(everyone knows they are being observed) or Covert (no one knows are observed and observer is concealed). Observation considered as the data collection method which supported the information collected through questionnaire and interview. Observations actually consider the additional evidence that support the information collected by other means of data collection (Yhidego, 2017).

### 3.8 Description of Data Analysis Procedures

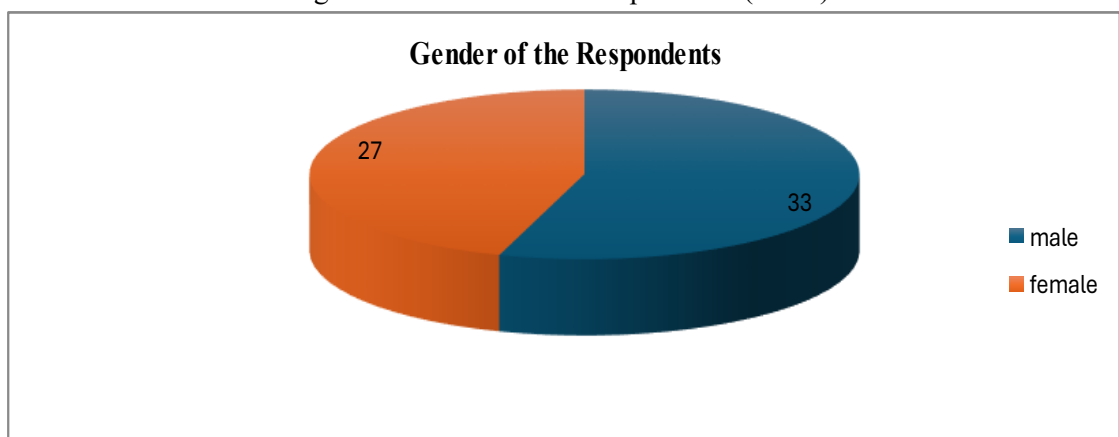
Both qualitative and quantitative data collected analyzed and interpreted by using the statistical package of social science (SPSS) and the information tested by using regression analysis and Pearson chi-square. Also, the research project data presented by using the data tables and figures.

## DATA PRESENTATION AND DISCUSSION OF THE FINDINGS

### 4.1 Demographic Background Information of the Respondents

The research involved households of different categories in terms of age, gender, education and marital status. This information on gender clearly shows that both female and male took part in the study and therefore, the study's findings are not subject to gender bias. The gender distribution appropriately gave adequate information about the population pressure and land use planning in Arusha urban District.

Figure 4.1 Gender of the Respondents (N=60)



Source: Field Data (2025)

The data from the figure 4.1 indicates that 55 (55.0%) of the participants were male while 45 (45.0%) of the participants were female. In this study, it was revealed that majority of the study participants were male and the remaining were female The



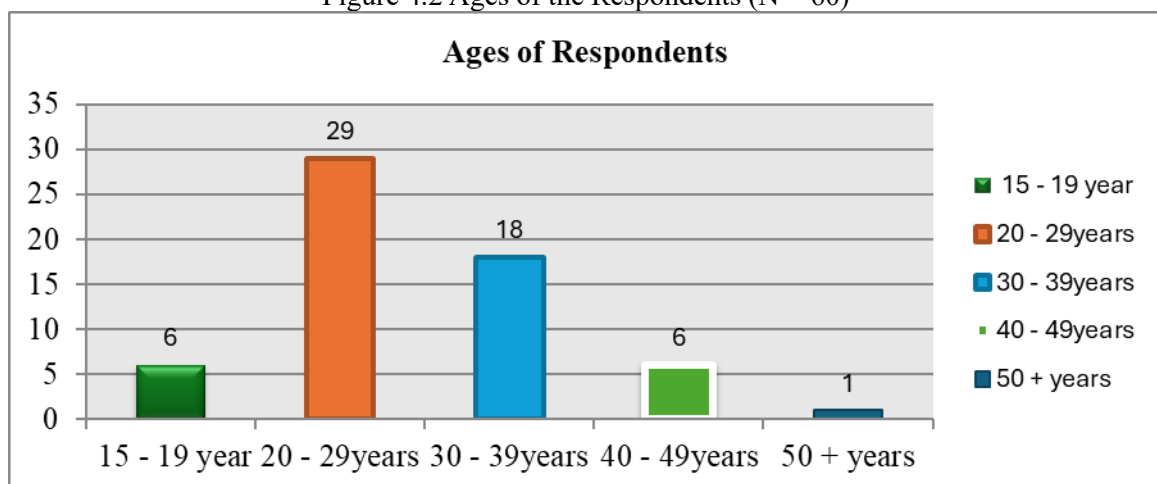
findings on gender clearly shows that both female and male took part in the study and therefore, the study's findings are not subject to gender bias. According to USAIDS (2017), at the current growth rate, Tanzania's population is projected to reach 70 million by 2025. Despite these numbers, women and youth are among the most marginalized and underutilized Tanzanian citizens.

The study conducted by Killian and Hyle (2021) showed that women do not have equal opportunities to raise their voice like men, and women are marginalized in the decisions made about forest management and in the distribution of benefits from the natural resources with which their communities are endowed. This has policy implications in the sense that processes and structures of decentralized forest governance seem unable to address the needs of women. The capacity of communities to participate defines the level of engagement towards land use planning.

#### 4.2 Ages of the Respondents

Age the length that a person has lived. Age is an important demographic variable and is a primary basis of demographic classification in vital statistics, censuses and surveys (Saboowala, 2018). Age help to shape the perception of demographic trend and determination of which group responsible for certain social and economic activities.

Figure 4.2 Ages of the Respondents (N = 60)



Source: Field Data (2025)

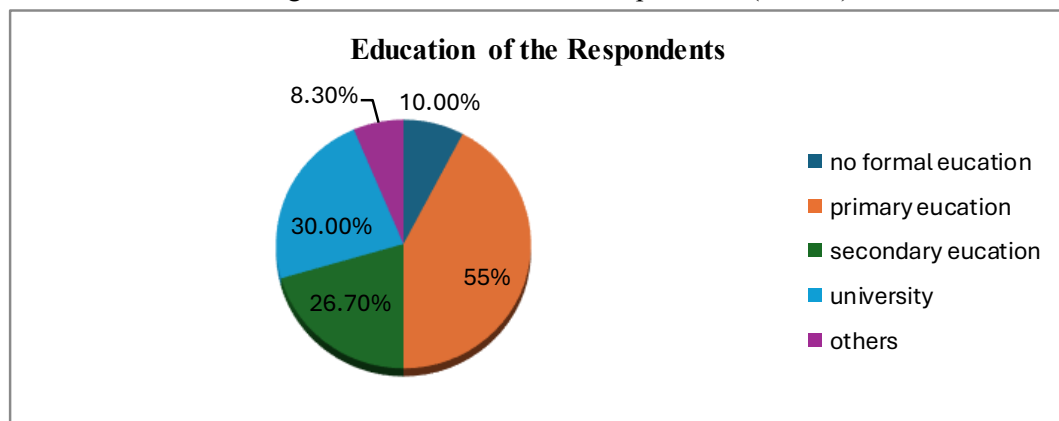
From the figure 4.2 show that 48 (48.3%) of the participants have ages of 20 to 29 years, 30 (30.0%) of them have ages of 30 to 39 years, 10 (10.0%) of the participants aged from 15 to 19 years and from 40 to 49 years. The findings indicate that 1 (1.7%) aged from 50 years and above. The findings are showing that people with different ages were able to be involved in the study.

This means that there were younger and older adults who differ in terms of perceptions about the population pressure towards land use planning. The study done by Chigbu (2017) showed that women and youth encounter problems with access to land, as well as securing tenure in land resource. To ensure that land tools and methods produce pro-poor and inclusive impacts, they need to be developed to also incorporate youths and women's experiences (including their needs and participation). This implies acknowledging that land tools or methods may impact differently on women, men, and youths. The focus of this Special Issue (SI) "Land, Women, Youths, and Land Tools or Methods" is crucial for understanding the social aspects of land administration and management.

#### 4.3 Education of the Respondents

Education is process of receiving or giving systematic instruction at school or university. According to Krishnarmurti (2019) the purpose of education is to bring freedom, love and transformation of the society. Education used to expand the existing body of knowledge by providing solution and efficient problems facing the community.

Figure 4.3 Education of the Respondents (N = 60)



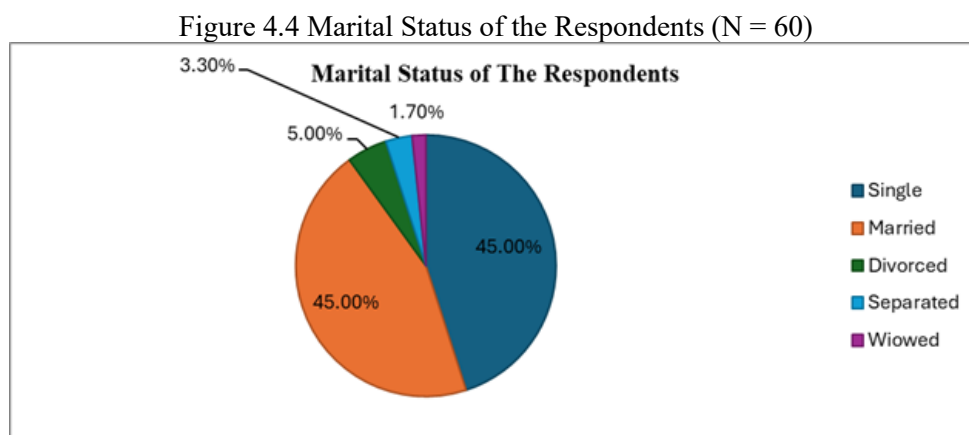
Source: Field Data (2025)

The data from figure 4.3 show that 55 (55%) of the participants have primary education, 30 (30.0%) of the participants have university level of education, and 26 (26.7%) of the participants have secondary education while 10 (10.0%) of the participants have no formal education whereas 8 (8.3%) of the participants have other forms of education. The findings are implying that there are majority with higher of education that make them to understand the effects of population pressure to land use planning in Arusha Urban District.

Tanzania has a total land area of 885,800 square kilometers. Environmental education (EE) is teaching people about both natural and built environments and raises awareness of issues impacting the environment upon which are all depend, as well as actions can take to improve and sustain it. Additionally, according to Siambwati (2016), established that environmental education could be key to addressing negative effects of mining, such as polluted water, air and soils since EE's major role was to increase people's knowledge and awareness about the environment and associated challenges so as to develop necessary skills and expertise to address such challenge. All stakeholders, especially those at the grassroots like the residents should be fully involved from the planning stage up to evaluation stage of programs.

#### **Figure 4.4 Marital Statuses of the Respondents**

This part present demographic information on respondent on marital status. Marital status, Is ones a situation with regard to whether one is single, married, separated, divorced or widowed. Marital status Used official to ask if a person is married, single divorced, or widowed.



Source: Field Data (2025)

The data in figure 4.4 shows that 45 (45.0%) of the respondents are married, 45 (45.0%) of the respondents are single. However, it is shown that 5 (5.0%) of the participants are divorced and 3 (3.3%) of the participants are separated whereas 1 (1.7%) of the participants are widowed. The findings are implying that the majority of the participants are married and single. Marriage helps cultural groups to have a measure of control over population growth by providing proscribed rules about when it is appropriate to have children.

According to Tanzania's National Land Use Planning Commission (NLUPC), pastoralists are a highly vulnerable group, which should be carefully handled under the Village Land Act implementation due to threats from farmers who tend to disregard this mode of production. Dicki and Bizoza (2016) stated that In Rwanda, informally married women's rights to property are particularly vulnerable. While the law protects formally married women's rights to joint property under the community property of marriage regime, women in informal marriages have no such protections.

#### 4.5 Factors Leading for Population Pressure

The study sought to assess the factors leading for population pressure. The respondents were asked to rate factors leading for population pressure. Table 4.1 establishes if they are aware about factors influencing population pressure and Table 4.2 indicates factors leading for population pressure.

Table 4.1 Responses of Households If they are Aware about Factors Influencing Population Pressure

| Question   | Response | Frequency (f) | Percentage (%) |
|--|----------|---------------|----------------|
| Are you are aware about factors influencing population pressure? | Yes      | 52            | 86.7           |
|  | No       | 8             | 13.3           |

Source: Field Data (2025)

The data in table 4.1 shows the findings from the responses on the question which aimed at knowing if the participants are aware about factors influence population pressure. The findings indicate that 86 (86.7%) of the participants said that they are aware about the factors influencing pressure while 13 (13.3%) of them said No. This is due to the fact that because of majority having higher level of education, they are likely to have awareness on the factors influence population pressure. The rate of

people's awareness on land use planning can influence them to know effective use of land resources in order to support further development in the next years.

Table 4.2 Responses about Factors for Population Pressure

| Statements                     | Strongly Agree |      | Agree |      | Undecided |      | Disagree |      | Strongly Disagree |     |
|--------------------------------|----------------|------|-------|------|-----------|------|----------|------|-------------------|-----|
|                                | f              | %    | f     | %    | F         | %    | F        | %    | f                 | %   |
| Rapid economic development     | 27             | 45.0 | 29    | 48.3 | 4         | 6.7  | 0        | 0    | 0                 | 0   |
| Rural-urban migration          | 37             | 61.7 | 21    | 35.0 | 2         | 3.3  | 0        | 0    | 0                 | 0   |
| Development of food production | 16             | 26.7 | 19    | 31.7 | 5         | 8.3  | 19       | 31.7 | 1                 | 1.7 |
| High illiteracy level          | 9              | 15.0 | 22    | 36.7 | 17        | 28.3 | 9        | 15.0 | 3                 | 5.0 |

Source: Field Data (2025)

The data in table 4.2 indicate that 61 (61.7%) of the participants strongly agreed that rural urban migration is factor for population pressure, while 45 (45.0%) of the participants strongly agreed that factor for population pressure is rapid economic development. Migration, whether internal or international, has always been one of the forces driving the growth of urbanization and bringing opportunities and challenges to cities, migrants and governments (Awumbila 2017) showed that migration is a significant contributor to urban growth and to the urbanization process, as people move in search of social and economic opportunity and from environmental deterioration.

The right to education of the minors, women, ethnic minorities, the handicapped and the poverty-stricken people should be protected. The study done by Mohammed (2019) recommended that the government should check population pressure through; birth control pills, encourage trees planting by individual household and also give some incentives to people that participate with this desertification would reduce, soil erosion can be control, Government should allocate more funds to the people at a zero interest loan to boost economic activities in the area in order to reduce the rate of poverty, crime and conflict and pollution. The findings are similar with the study of (Pettinger, 2019) showed that population growth is determined by fertility rates (the number of children per adult) fatality rates. Birth rates and mortality rates are, in turn, determined by a combination of factors. Often economic growth and economic development have led to a decline in population growth, but there are no

hard and fast rules and other factors, such as availability of family planning, social expectations and government intervention can play an important role.

#### 4.5 The Linkage between Population Pressure and Land Use Planning

The second objective sought to establish the linkage between population pressure and land use planning. Therefore, to identify it, the present study asked respondents to indicate the linkage between population pressure and land use planning. The findings are shown in table 4.3

Table 4.3 Responses on the Linkage between Population Pressure and Land Use Planning

| Questions   | Strongly Agree |     | Agree |      | Undecided |      | Disagree |      | Strongly Disagree |      |
|---|----------------|-----|-------|------|-----------|------|----------|------|-------------------|------|
|   | f              | %   | f     | %    | f         | %    | F        | %    | F                 | %    |
| Do Municipal Council have capacity of controlling the effects of population pressure?             | 0              | 0   | 10    | 16.7 | 7         | 11.7 | 25       | 41.7 | 18                | 30.0 |
| It is possible for community to overcome the effects of population pressure on land use planning? | 1              | 1.7 | 4     | 6.7  | 8         | 13.3 | 27       | 45.0 | 20                | 33.3 |
| Do population growth affects long range planning of community health and medical facilities?      | 0              | 0   | 1     | 1.7  | 11        | 18.3 | 35       | 58.3 | 12                | 20.0 |
| Do community are well educated and informed on land use planning in their respective area?        | 0              | 0   | 20    | 33.3 | 13        | 21.7 | 24       | 40.0 | 3                 | 5.0  |

Source: Field Data (2020)

From the table 4.3 of the findings indicates that 58 (58.3%) of the participants disagreed on the population growth affects long range planning of community health and medical facilities. This implies that there is positive relationship between population and socio-economic development in the district. The findings in table 4.3 indicate that 45 (45.0%) of the participants disagreed on the possible for community to overcome the effects of population pressure on land use planning. This means that there are challenges hinder community to overcome the effects of population

pressure on land use planning which needs for sound ways on how to help people in the community in order to overcome the problems of population pressure.

A report of Walker (2015) showed that demography is not destiny, but population growth trends are crucially important to the future of developing countries already struggling to alleviate hunger, eliminate severe poverty, manage water scarcity, curb environmental degradation or prevent conflict. Just as developing countries must prepare for the anticipated effects of climate change, need to recognize and confront the challenges associated with a rapidly growing population.

The study done by **Opeoluwa** (2021) suggested that the reduction of the population growth rate can assist in development that can provide essential services and improve poverty eradication policies. The government embarks on an intensive awareness program to educate the general populace on the effects of an uncontrolled population growth rate on resources and the environment. An effective birth-control system is advised to help manage the birth-rate while developing a comprehensive population policy for sustainable development with population growth rate management.

The findings indicate that 41 (41.7%) of the participants disagreed on the municipal council have capacity of controlling the effects of population pressure while 40 (40.0%) of the participants disagreed on the community are well educated and informed on land use planning in their respective area.

Table 4.4 Responses of Households on the Efforts Made by the Arusha Municipal to Provide Land Use Planning Management N = 60

| Question   | Response  | Frequency (f) | Percentage (%) |
|--|-----------|---------------|----------------|
| How do you evaluate the efforts made so far by the Arusha Municipal to provide land use planning management? | Very Good | 12            | 20.0           |
|  | Good      | 31            | 51.7           |
|  | Fair      | 9             | 15.0           |
|  | Poor      | 6             | 10.0           |
|  | Very Poor | 1             | 1.7            |

Source: Field Data (2025)

The findings in table 4.4 indicates that 51 (51.7%) of the respondents agreed that 51 (51.7%) of the respondents' efforts made so far by the Arusha District to provide land use planning management is good, 20 (20.0%) of the participants agreed there is very good efforts made so far by the Arusha District to provide land use planning management while 15 (15.0%) said that there is fair. The findings are indicating that there is good leadership and commitment among government officers in promoting the land use planning management in Arusha District in the country. These enhance the provision of good provision of services to the people.

## **SUMMARY CONCLUSION AND RECOMMENDATION**

### ***5.0 Introduction***

This chapter divided into three parts which are summary of the study, recommendation and conclusion of the study on Assessment on the Linkages between Population Pressure and Land use Planning in Arusha urban District, Tanzania.

### **5.1 Summary of the Study**

The study examined the linkages between population pressure and land use planning in Arusha urban District, Tanzania. The study was specifically guided by three objectives which were: To examine factors leading to population pressure in Arusha urban District, Tanzania, to describe the relationship between population pressure and land use planning in Arusha urban District, Tanzania and to examine the effects of population pressure on land use planning, in Arusha urban District, Tanzania. The targeted population of this study was from Arusha urban District, Tanzania. Questionnaire and interview methods were used

#### **5.1.1 To Examine Factors Leading to Population Pressure**

The findings indicate that 86 (86.7%) of the participants said that they are aware about the factors influencing pressure while 13 (13.3%) of them said No. that 61 (61.7%) of the participants strongly agreed that rural urban migration is factor for population pressure, while 45 (45.0%) of the participants strongly agreed that factor for population pressure is rapid economic development. Migration, whether internal



or international, has always been one of the forces driving the growth of urbanization and bringing opportunities and challenges to cities, migrants and governments.

### **5.1.2 To Describe the Relationship between Population Pressure and Land Use Planning**

The study's findings show that 58 (58.3%) of the participants disagreed on the population growth affects long range planning of community health and medical facilities. 45 (45.0%) of the participants disagreed on the possible for community to overcome the effects of population pressure on land use planning.

### **5.1.3 To Examine the Effects of Population Pressure on Land Use Planning**

In this objective, the findings show that 51 (51.7%) of the respondents agreed that 51 (51.7%) of the respondents' efforts made so far by the Arusha District to provide land use planning management is good. The findings indicate that 41 (41.7%) of the participants disagreed on the municipal council have capacity of controlling the effects of population pressure while 40 (40.0%) of the participants disagreed on the community are well educated and informed on land use planning in their respective area.

## **5.2 Conclusion**

People are aware about the factors influencing population pressure. Factors for population pressure are rural urban migration and rapid economic development. The population growth affects long range planning of community health and medical facilities. While efforts to provide land use planning management is good. The community is well educated and informed on land use planning in their respective area.

## **5.3 Recommendations**

Recommendations of this study based on specific objectives of the study.

### **5.3.1 Recommendation to the factors leading to population pressure.**

1. The first objective was to examine factors that leading to population pressure in Arusha urban District, Tanzania. The study revealed that many people are aware of factors that influence population pressure.
2. The study recommends that there must be improvement in the provision of education to the people concerning factors leading to population pressure for instance frequently seminars to the people concerning population pressure.
3. To establish a permanent population committee plan, develop and implement population policies and related research.
4. Formulation of policies that will help to control population increase. This will ensure that the policies are going to meet the demand of the present as well as future generations.
5. Also the community or society should be involved in the policy formulation, it will help to harmonize the society about factors leading to population pressure and their impacts to the environment.

### **5.3.2 To examine the effects of population pressure on land use planning in Arusha urban District, Tanzania**

The objective was to examine the effects of population pressure and land use planning in Arusha urban District, Tanzania. The study recommends the following;

1. Environmental education must be provided to the community on the importance of land resources if it managed well and the benefits that community will gained from conserving the land resources.
2. Local government must participate on formulation of policies which will help to reduce the negative effects of population pressure on land use planning.
3. The local people or community must be involved in the formulation of those policies to increase their awareness on the effects of population pressure on land use planning.
4. Orientation and implementation of the laws that will help to improve the status of the land hence reducing the effects of population pressure on land.

5. The policies should prioritize the environment education to enhance conservation of natural environment and transferring of the knowledge, values, skills of the environment from one generation to another.

#### **5.3.3 To the Government**

The government of United Republic of Tanzania should help people in attaining the land for settlements by giving support where appropriate place can establish settlement in order to reduce the influx of number of people in a small area. This will stimulate the development of different economic activities.

#### **5.3.4 To the Municipal Council**

The Municipal Council of Arusha should educate its people on the effects of poor land use on the development of nation. People should be allocated the proper areas that can use for their daily activities in order to promote development.

#### **5.3.5 To the Community**

Community members must protect land resources by avoiding improper use that destruct the land fertility that can affect the future generation. People must know that land is fixed asset that to destroy means to affect the life of living organism. Thus, in order to ensure prosperous life, land must be used properly.

#### **5.3.6 To the Land Department**

Departments responsible for land in county should offer important education to the people on how to protect land resource in order to ensure its strengths that can influence the development of social economic activities in the country.

#### **5.3.7 To the Non-Government Organizations**

Non-Government Organizations must cooperate with the municipal council of Arusha in ensuring that community members are getting education on how to protect land resources that can support the life of people in the nation.

## 5.4 Recommendation for Further Studies

The further researchers are suggested that there is need to find out the contribution of population pressures towards social and economic development in Tanzania.

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