



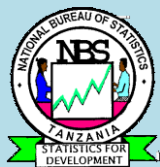
THE UNITED REPUBLIC OF TANZANIA

CONCEPTS AND DEFINITIONS

FOR

OFFICIAL STATISTICS IN TANZANIA

SECOND EDITION



National Bureau of Statistics
Ministry of Finance
Dar-es-Salaam

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PREFACE

According to the `Statistics Act, 2002` one of the main functions of the National Bureau of Statistics (NBS) is to establish statistical standards and ensure their use by all producers and users of official statistics so as to facilitate the integration and comparison of statistics produced both nationally and internationally.

This publication puts together all Statistical Concepts and Definitions that are used in the collection and compilation of official statistics in the country. The objective of the publication is to cover concepts and definitions used by all producers of official statistics in the entire National Statistical System.

To allow internal and external comparison, most of the concepts and definitions given are those recommended internationally. However, where national interests are better served by departing from international recommendations, priority is given to national interests.

We hope that both the current and potential producers / users of official statistics will look at this document closely and see if the concepts and definitions contained herein, meet the findings in this publication useful in their research and analytical needs. We also welcome feedbacks, comments and suggestions that will lead to improvement of future editions of this publication.

Dr. Albina A. Chuwa
Director General.

INTRODUCTION

The National Bureau of Statistics (NBS) is not the only producer of statistics in the National Statistical System in the country. However, according to the Statistics Act, 2002 NBS is mandated among other tasks to coordinate statistical services in the country so as to produce quality statistics that are comparable over time and across subject matter areas.

Experience has shown that producers of statistics in Tanzania have been producing statistics that are conflicting. This situation has, over the years, brought difficulties for planners and decision makers to decide on which dataset to use.

In order to address this situation, the NBS has produced this document, which provides statistical concepts and definitions to be used by all producers and users of statistics so as to enhance harmonization in the production of official statistics in Tanzania. This publication is summarized into six (6) subject matter areas;

- Demographic
- Education
- Health
- Other Social statistics
- Economic statistics
- Crosscutting subject matter areas that include; Central Register of Establishments (CRE), Geo-Information System (GIS), Sampling, and Environment.

The National Bureau of Statistics published the First Edition *on Concepts and Definitions 2004-2010* as one of the regular publications for use by the government and other statistical stakeholders. The Second Edition *on Concepts and Definitions for Official Statistics 2011-2014* was produced by involving various stakeholders from MDAs within the National Statistical System (NSS). This was aimed at fulfilling the needs of the implementation process for five years (2009/10-2013/14) of the Tanzania Statistical Master Plan (TSMP) that focuses on five substantive components namely; Institutional Development and Legal Reforms, Human Resource Development, Data Development and Dissemination, Physical Infrastructure and Equipment Development and Development of Statistical Infrastructure. Henceforth, the NSS needs to be supported by adequate statistical infrastructure based on well defined Concepts, Definitions, International Classifications and Standards.

It is expected that Development of Statistical Infrastructure will improve the Quality of Data and harmonize statistical production processes as well as reduce production costs within the NSS. This initiative will also help to raise public awareness and confidence among various customers in the use of Routine, Survey and Census Data.

The plan is to update this publication after every five (5) years. The time in between will be used to develop concepts and definitions for new subject matter areas and promote discussions, comments and constructive suggestions from stakeholders so as to produce quality statistics needed to facilitate evidence based plans for decision making. The next edition will be produced in 2015.

PART ONE: REAL SECTOR

CHAPTER ONE

NATIONAL ACCOUNTS STATISTICS

National accounts statistics are designed to provide a consistent and comprehensive survey of the national economy. The national accounts contain national aggregates, and give detailed descriptions of transactions between different sectors of the economy, including the rest of the world.

1. The System of National Accounts (SNA)

Consists of coherent, consistent and integrated set of macroeconomic accounts, balance sheets and tables based on a set of internationally agreed concepts, definitions, classifications and accounting rules.

The accounts themselves present in a condensed way a great mass of detailed information, organized according to economic principles and perceptions, about the working of an economy in the reference period.

1.1 Regional National Accounts

Refers to coherent, consistent and integrated sets of macroeconomic accounts and tables designed for a variety of analytical and policy purposes but compiled at regional level. In Tanzania Mainland, there are 21 regions and each region constitutes an economic territory used for the compilation of Regional National Accounts.

1.2 Quarterly National Accounts (QNA)

Refers to coherent, consistent and integrated sets of macroeconomic accounts and tables designed for a variety of analytical and policy purposes but compiled quarterly basis in a year.

1.3 Semi-annual National Accounts

Refers to coherent, consistent and integrated sets of macroeconomic accounts and tables designed for a variety of analytical and policy purposes but compiled after every six months.

1.4 Institutional unit

Refers to an economic entity that is capable, in its own right, of owning assets, incurring liabilities, engaging in economic activities and engaging in transactions with other entities (see also 8.2.1).

1.5 Economic Production

Refers to an activity carried out under the control and responsibility of an institutional unit that uses inputs of labour, capital, goods and services to produce outputs of goods or services. A purely

natural process without any human involvement or direction is not production in an economic sense.

1.6 Current Prices

Refers to the prevailing prices at the time of observation.

1.7 Current Price Estimates

Estimation of Gross Domestic Product (GDP) at current prices involves expressing the value of each component transaction as the product of a current price and quantity.

1.8 Constant Price

Obtained directly by factoring changes over time in the values of flows or stocks of goods and services into two components reflecting changes in the prices of the goods and services concerned and changes in their volume.

1.9 Constant Price Estimates

Gross Domestic Product (GDP) at constant prices involves expressing the value of each component transaction as the product of a fixed base year price and current quantity.

1.10 Price Deflator / GDP deflator

Is a measure of the level of prices of all new, domestically produced final goods and services in an economy. It measures the ratio of current-year price of a good to its price in some base year. The formula used to calculate the deflator is:

$$\text{GDP deflator} = \frac{\text{Nominal GDP}}{\text{Real GDP}} \times 100$$

1.11 Implicit Price Deflator

This is obtained by dividing GDP at current prices value by a corresponding GDP at constant prices.

1.12 Market output

Refers to output sold at prices that are economically significant or otherwise disposed of on the market, or intended for sale or disposal on the market.

1.13 Gross Domestic Product (GDP)

Refers to the sum of the gross values added of all resident institutional units engaged in production (plus any taxes, and minus any subsidies on products not included in the value of their outputs).

The sum of the final uses of goods and services (all uses except intermediate consumption) measured in purchasers' price, less the value of imports of goods and services, or the sum of primary incomes distributed by resident producer units.

The basic formula for calculating the GDP is:

$$Y = C + I + E + G$$

Where

Y = GDP

C = Consumer Spending

I = Investment made by Industry

E = Excess of Export over Imports (X – M)

G = Government Spending

a) Gross Domestic Product at Market Prices

Refers to the producers' value of the gross output of Resident Producers less the purchasers' values of their intermediate Consumption plus import duties.

b) Gross Domestic Product at Factor Cost

Refers to the value of all goods and services produced by the Resident without including *the excess of indirect taxes over subsidies*.

1.14 Basic price

The basic price is the amount receivable by the producer from the purchaser for a unit of a good or service produced as output minus any tax payable, and plus any subsidy receivable, on that unit as consequence of its production or sale; it excludes any transport charges invoiced separately by the producer.

1.15 Gross Domestic Product at Basic Prices

Refers to the value of the gross output at basic prices of resident Producers less the purchasers' values of their intermediate Consumption plus net taxes on products

1.16 Gross National Income (GNI)

GNI (gross national income) is GDP less net taxes on production and imports, less compensation of employees and property income payable to the rest of the world plus the corresponding items receivable from the rest of the world (in other words, GDP less primary incomes payable to non-resident units plus primary income receivable from non-resident units); an alternatively approach to measuring GNI at market prices is as the aggregate value of the balances of gross primary incomes for all sectors; (note that GNI is identical to gross national product (GNP) as previously used in national accounts generally

1.17 Real Gross Domestic Income

Refers to a measure of the real purchasing power of income generated by domestic production (including the impact on those income of changes in the terms of trade); it is equal to gross domestic product at constant prices plus the trading gain (or less the trading loss) resulting from the changes in the terms of trade.

1.18 Real Gross National Income

Refers to a measure of the real purchasing power of national income calculated by adjusting real gross domestic income for the real impact of primary income flows (property income and labour income) to and from the rest of the World.

1.19 Factor Incomes from the Rest of the World

These include Primary Income and Factor Income from the Rest of the World.

a) Primary Incomes

These are payable out of the value added created by production. They include compensation of employees, property incomes (interests, dividends,) and taxes on production and imports net of subsidies.

b) Factor Incomes

These are payments as a result of the use of factors of production (labour, capital and land).

c) Rest of the World

Refers to all non-resident institutional units that enter into transactions with resident units or have other economic links with resident units.

1.20 Value Added

It is the measure of the additional value created by a process of Production in the economy for the reference period.

a) Gross Value Added

The value of output minus the value of intermediate consumption; it is a measure of the contribution to GDP made by individual producer, industry or sector.

b) Net Value Added

It is the value of output less the values of both intermediate consumption and consumption of fixed capital.

1.21 Goods and Services

a) Goods

These are physical objects for which a demand exists. The ownership rights can be established and whose ownership can be transferred from one institutional unit to another by engaging in transactions on markets. It includes goods for own consumption.

b) Services

These are heterogeneous outputs produced on demand. Typically consist of changes in conditions of the consuming units realized by the activities of producers at the demand of the consumers. Services are not separate entities over which ownership rights can be established. They cannot be traded separately from their production.

1.22 Subsistence Production

Refers to the value of goods and services produced at small scale and used by the producers themselves without exchange for money.

1.23 National Disposable Income:

Refers to Gross National Income at market prices less current transfers, in cash or in kind between resident and non-resident institutional units. Gross or net national disposable income may be derived from gross or net national Income by:

Adding all current transfers in cash or in kind receivable by resident

Institutional units from non- resident units; and subtracting all Current transfers in cash or in kind payable by resident institutional to Non-resident units.

a) Transfers

Refers to transactions between one institutional unit and another unit without exchange of goods, services or assets in return.

b) Residence

Is a center of economic interest in the economic territory of that country. Residence is not based on nationality or legal criteria. The residency status of producers determines the limits of domestic production and affects the measurement of gross domestic product and many flows in the system.

1.24 Gross National Disposable Income

Is equivalent to GNI plus all secondary income in cash or in kind receivable by resident institutional units from the rest of the world, less all secondary income in cash or in kind payable by resident institutional units to the rest of the world.

1.25 Property Income

Refers to the income receivable by the owner of a financial asset or a tangible non-produced asset in return for providing funds to or putting a tangible non-produced asset at the disposal of another, institutional unit.

1.26 Final Consumption Expenditure

Refers to transactions on final consumption of goods and services by the household and the government in the economy during a reference period.

1.27 Final consumption expenditure of government

Government final consumption expenditure consists of expenditure, including imputed expenditure, incurred by general government in both individual consumption goods and services and collective consumption services.

1.28 Final consumption expenditure of households

Household final consumption expenditure consists of the expenditure, including imputed expenditure, incurred by residence households on individual consumption of goods and services, including those sold at prices that are not economically significant.

1.29 Final consumption expenditure of NPISHs

Final consumption expenditure of NPISHs consists of expenditure, including imputed expenditure incurred by resident NPISHs on individual consumption of goods and services.

1.30 Compensation of Employees

Refers to total remuneration in cash or in kind, payable by an enterprise to employees in return for work done by the latter during the accounting period.

1.31 Wages and Salaries in cash

Refers to the total remuneration in cash payable by an enterprise to an employee in return for work done during the accounting period.

1.32 Wages and Salaries in kind

Refers to the total remuneration in cash payable by an enterprise to an employee in return for work done during the accounting period but payments are made in kind. For example food, accommodation and travel.

1.33 Intermediate Consumption

Refers to the value of the goods and services used as inputs in the process of production, excluding fixed assets whose consumption is recorded as consumption of fixed capital; the goods or services may be either transformed or used up by the production process.

1.34 Actual Final Consumption of Households

Is the value of consumption goods and services acquired by households, whether by purchase in general, or by transfer from government units or NPISHs, and used by them for the satisfaction of their needs and wants; it is derived from final consumption expenditure by adding the value of social transfers in kind receivable.

1.35 Gross Fixed Capital Formation

Is measured by the total value of producer's acquisitions, less disposals, of fixed assets during the accounting period plus certain additions to the value of non-produced assets (such as subsoil assets or major improvements in the quantity, quality or productivity of land) realized by productive activity of institutional units.

1.36 Changes in Inventories

Changes in inventories(including work- in –progress) consists of changes in: a) stocks of outputs that are still held by the units that produced them prior to their being processed, sold, delivered to other units or used in other ways; and b) stocks of products acquired from other units that are intended to be used for intermediate consumption or for resale without further processing; they are measured by the value of the entries into inventories less the value of withdrawals and the value of any recurrent losses of goods held in inventories.

1.37 Gross Capital Formation

Is measured by total value of the gross fixed capital formation, changes in inventories and acquisitions less disposals of valuables for a unit or sector.

1.38 Acquisitions of Non-financial Assets

It is equal to Acquisitions of total non financial assets less Consumption of fixed capital. Net acquisitions are partly actual purchases and sales of goods, but also reflect internal transactions of the producers. In practice, changes in inventories of goods in general are determined as total supply less total other uses of each good and subsequently summed over all goods.

1.39 Exports of Goods and Services

Consists of sales, barter, or gifts or grants, of goods and services from residents to non residents; the treatment of exports and accounts as described in the Balance of Payments Manual.

1.40 Imports of Goods and Services

Consists of purchases, barter, or receipts of gifts, or grants, of goods and services by residents from non residents; the treatment of exports and imports in the SNA is generally identical with that in the balance of payments accounts as described in the Balance of Payments Manual.

1.41 Operating Surplus

Operating surplus or mixed income is a measure of the surplus accruing from processes of production before deducting any explicit or implicit interest charges, rent or other property incomes payable on the financial assets, or tangible non produced assets borrowed or rented by enterprise.

1.42 Fixed Assets and Consumption of Fixed Capital

Refers to the reduction in the value of fixed assets used in production during the accounting period resulting from physical deterioration, normal obsolescence or normal accidental damage.

a) Fixed Assets

Are tangible or intangible assets produced as outputs from processes of production that are themselves used repeatedly or continuously in other processes of production for more than one year.

b) Consumption of Fixed Capital

Refers to the decline in the current value of stock of fixed assets as a result of physical deterioration, normal obsolescence or normal accidental damage.

1.43 Basic Price

It is the price receivable by a producer exclusive of taxes on the product and inclusive of subsidies on the product.

1.44 Producers' Price

It is the price receivable by a producer inclusive of taxes on the product (but not Value Added Tax) and exclusive of subsidies on the product.

1.45 Purchasers' Price

Refers to the price paid by the purchaser, excluding any deductible tax, in order to take delivery of a unit of a good or service at the time and place required by the purchaser. The purchaser's price of a good includes any transport charges paid separately by the purchaser to take delivery at the required time and place.

1.46 Financial Intermediation

It is a productive activity in which an institutional unit incurs liabilities on its own account for the purpose of acquiring financial assets by engaging in financial transactions on the market.

1.47 Social Accounting Matrix (SAM)

It is a square matrix consisting of rows and columns accounts that represent different sectors, agents, and institutions of an economy at the desired level of desegregation. The SAM is a useful framework for consistent multi-sectoral economic data preparation, represents the expenditure-receipt flows among all actors and sectors of the entire economy, capturing both input-output and national income and product data.

It contains detailed information about the incomes and expenditures/outlays of institutions (household groups, enterprises/companies, governments and relevant accounts of the rest of the world); and about the production structure i.e. the input-output (I-O) structure of production in the economy.

Figure 1.1 General Structure of A Macroeconomic Social Accounting Matrix

		PAYMENTS						
		Activities	Commodities	Factors	Households & Firms	Government	Savings Investment	Rest of the World
R E C E I P T S	Activities		D Domestic Supply					E Export
	Commodities				C Private Consumption	G Government Consumption	I Investment Demand	
	Factors	Y Value-added						
	Households & Firms			Y Household Income				
	Government	T_x Indirect Tax			T_H Income Tax			
	Savings Investment				S_H Private Saving	S_G Government Saving		S_F Foreign Saving
	Rest of the World		M Imports					

Key:

- Y = Value-added (GDP at basic prices/ factor costs)
- TX = Indirect production tax
- D = Domestic supply
- M = Imports (c.i.f.)
- C = Final private consumption
- TH = Income taxes
- SH = Domestic private savings

G	=	Government consumption
SG	=	Government savings
I	=	Investment demand
E	=	Exports (f.o.b.)
SF	=	Foreign savings

The designing and structure of any SAM depends on the socio-economic structure of an economy, policy needs, and data availability.

1.48 Input-Output Table

It is a tabular summary of the flows of goods and services between industries and final demand of an economy with the output of each sector being the inputs of the other sectors. It is an important analytical tool for analyzing the structure of production in an economy. It also shows the relationship between inputs of raw materials and output of final product.

1.49 Supply and Use Tables

These are tables in the form of matrices that record how supplies of different kinds of goods and services originate from domestic industries and imports and how those supplies are allocated between various intermediate or final uses, including exports.

1.50 Value Added Tax (VAT)

It is a consumption tax charged on all taxable goods and services. It is a multi-stage tax levied on the difference between a commodity's price before taxes and its production cost at each stage of production and distribution up to the retail stage. It is also levied on taxable imports. (See 11.2)

1.51 Import Duty

Is levied at fixed rate on the Cost, Insurance and Freight (CIF) value of goods imported into the country. (See 11.8)

1.52 Public Sector

The public sector is comprised of government and parastatal sub-sectors. It includes establishments under the central, regional or local governments and other government institutions. (See 4.1.16)

1.53 Private Sector

The private sector comprises formal and informal establishments, which are not part of Government. These establishments can be individual, joint or cooperatives. (See 4.1.16)

1.54 Production Sector

These are sectors, which produce goods such as agriculture, manufacturing, mining and quarrying, electricity, and water.

1.55 Service Sector

These are sectors, which renders services such as trade, transport, communication, public administration, finance and other business.

1.56 Additional Concepts

The three methods (approaches) used for calculating Gross Domestic Product (GDP) according to the System of National Accounts (SNA) are Product approach, Expenditure approach and Income approaches.

- **Product approach** is aggregated based on the production accounts. GDP is
Sum of Gross Value Added of all industries (or all activities)
PLUS Taxes on products
LESS Subsidies on products.
- **Income approach**, which is aggregated based on the generation of income accounts. GDP is sum of Compensation of employees Operating surplus Consumption of fixed capital Taxes on products net subsidy.
- **Expenditure approach**, which is aggregated based on the goods and services accounts. GDP as sum of expenditure categories:
 Government final consumption expenditure
 Household final consumption expenditure
 Change in inventories
 Gross fixed capital formation
 Export of goods and services
LESS
 Import of goods and services.

National Accounts of Tanzania is mainly complied using product and expenditure approaches.

CHAPTER TWO

TAX STATISTICS

Tax is a compulsory levy or charge imposed by the state on her citizens or non-citizens that is usually payable in monetary terms. Taxes are compulsory financial contribution made by a person or body of persons towards the expenditure of a public authority.

Tax Statistics refers to the data that related to taxes collected by the authorized institutions in the country.

2. Types of Taxes

Basically, there are two types of taxes namely, Direct and Indirect Taxes. Each type is classified according to the legal and effective incidence to the final payer.

2.1 Direct Taxes

These are taxes levied directly on people's income from employment, business or ownership of property or investment.

2.1.1 Indirect Taxes

These are taxes based on consumption. Examples of such taxes are like Import Duty, Excise Duty and Value Added Tax (VAT). By definition the legal incidence of the tax falls on the trader who act as a collection agent of the Government while the effective incidence falls on the final consumer of goods or service who eventually pays the tax.

2.2 Imposition of Income Tax

It is charged and payable for each year of income by every person who:-

- Has total income, which is the sum of employment, business and investment income;
- Has a domestic permanent establishment that has repatriated income for the year of income; or
- Receives final withholding payments for the year of income.

2.2.1 Corporate Tax

It is levied on all the corporate taxable profits, accruing to all companies carrying on business in Tanzania.

2.2.2 Individual Income Tax

These refer to;

- Tax charged to non-corporate payers who include sole traders (proprietors) taxed at progressive individual income tax rates; and

- Pay As You Earn (PAYE) is a tax whereby employee's gross emoluments are subjected to.

2.2.3 Taxation of small traders with and without complete records

It is levied income tax on all small traders who operate mostly in the informal sector with and without their business records based on their annual business turnover.

2.2.4 Gains or Profits from Employment

This is an income which an employee earns from an employment in the form of salary, which is payable on daily, weekly or monthly. It includes payments of wages, salary, payment in lieu of leave, fees, commissions, bonus and gratuities, payments of any personal allowance, payments providing any discharge or reimbursement of expenditure incurred by an individual or by an associate of an individual payment for an individual's agreement to any conditions of the employment. Contributions made on behalf of the employee to retirement funds and retirement payments made directly to employees. Redundancy and other payments for loss or termination of employment relating to the year of payment and any benefits in kind.

2.2.5 Qualification of Benefits in Kind

It is benefits which an employer may decide to give to the employee. These are like:-

- **Motor Vehicle Benefit:** Where an employee is provided with motor vehicle by an employer for personal use in return for employment rendered and the employer incurs all necessary expenses to maintain the vehicle then this is a taxable benefit to the employee quantified annually.
- **Subsidized Loans:** It is a loan to an employee provided by employer at no interest or at an interest rate that is below the statutory interest rate.
- **Provision of Housing:** It is the value of housing provided to an employee by the employer which is taxable benefit and is included in the employee's monthly pay. The value of housing is calculated as the market value of renting that housing or 15 percent of the rest of the employee's income from employment, whichever is less.

2.2.6 Gains or Profit from Business

It is a person's income from a business during a year. The following amounts derived from business are regarded as gains or profits and they are taxable:-

- Service fees;
- Incomings from trading stock (sales of business stocks);
- Gains from sale of business assets or liabilities;
- Sale of depreciable assets;
- Amounts derived as consideration for accepting a restriction on the capacity to conduct the business; and
- Gifts and other payments received by the person in respect of a business.

2.2.7 Gains from investment

Income from investment include:-

- Any dividend, distribution of a trust, gains from life insurance, gains from an interest in an unapproved retirement fund, interest, natural resources payment, rent, or royalty;
- Net gains from realization of investment assets (Capital gains); and
- Amounts derived as a consideration for accepting a restriction on the capacity to conduct the investment.

2.2.8 Losses from Business or Investments

The income tax law provides the treatment of unrelieved losses as follows:-

- When computing income from business or investments during any year of income and a loss is incurred which becomes unrelieved loss, the law allows it to be carried forward and offset against future business income as the case may be, until the whole unrelieved loss exhausted;
- A person is allowed to deduct a foreign loss from investment only in calculating the person's income from foreign source investment;
- A person is allowed to deduct losses other than foreign losses from investments only in calculating the person's income from investments;
- In case of foreign business, loss is allowed only in calculating the foreign business income; and
- In case of a loss incurred in agricultural business it is allowed only in calculation the person's income from agricultural business.

2.2.9 Payment of Tax by Installments

- **Single Installments:** Is a payment income tax by single installment required from any person who derives a gain in conducting investments from realization of interest in land or buildings situated in Tanzania.

A rate of 10 and 20 percent of the gain for a resident and nonresident person respectively, is required to pay income tax by single installment. Payment by single installment also applies in case of non-resident person who receives a payment in conducting a business of land, sea, or air transport or chartered (without having a domestic permanent establishment in Tanzania) which evolves the carriage of passengers who embarked or cargo, mail or other moveable tangible assets that are embarked in Tanzania and which are not for transit, the payer is required to withhold 5 percent of the gross payments before the proper before the vessel, vehicle or aircraft is allowed to leave from Tanzania.

- **Quarterly Installments:** It is a payment required from business or investments during the year of income at the end of each three-month period commencing at the beginning of the year of income and a final installment on the last day of the year of the income.

2.3 Indirect Taxes (Consumption Taxes)

2.3.1 Value-Added Tax (VAT)

It is a consumption tax charged on all taxable goods and services at a standard rate of 18 percent. It is a multi-stage tax levied on the difference between a commodity's price before taxes and its production cost at each stage of production and distribution up to the retail stage. It is also levied on taxable imports made by person whether or not registered for VAT.

2.3.2 Excise Duty (Local)

It is levied on certain locally manufactured goods and services such as soft drinks, beer, wines, spirit, mobile phone services, plastic shopping bags, satellite television services, cigarettes and petroleum products.

2.4 Value Added Tax on Imports

It is levied on all goods and services imported into the country unless such goods and services are specifically exempted under the VAT law. All importers must pay VAT regardless of whether or not they are registered for VAT. However, importers who are registered for VAT can claim as an input tax in their business, the VAT paid on the imported goods. However, for VAT on imported services the input tax is treated as reverse charge hence added to the value of the service.

2.5 Other Taxes

2.5.1 Skills and Development Levy (SDL)

This tax is based on the total gross emoluments paid by an employer to employees (currently, at a rate of 6 percent). The gross emoluments include salary, wage, leave, pay, payment in lieu of leave, subsistence allowance, etc.

2.5.2 Stamp Duty

Refers to the duty paid on certain legal instruments/transactions, affidavit, conveyance and lease Agreements. The duty rate is 1 percent based on the consideration applicable on non business persons when issuing a receipt whenever they sale their privately owned assets/properties. Stamp duty on conveyance of agricultural land is TShs 500/=.

2.5.3 Airport Service Charge

Refers to charges levied on passengers who board an aircraft at any airport in Tanzania.

2.5.4 Port Service Charge

Refers to charges levied on passengers who travel by a passenger shipping vessels at any port in Tanzania.

2.5.5 Motor Vehicle Registration and Transfer Tax

Refers to charges levied when a person is registering/transfer fee a motor vehicle and motor cycle.

2.5.6 Motor Vehicle Annual License Fee

It is charged on annual basis according to motor vehicle engine capacity. **Note that:** Tractors which are used solely for agriculture are exempted from the annual license fee.

2.6 Custom Modernization Programme

Refers to enhance efficiency and effectiveness in revenue collection at the same time facilitate the international trade. Some of the programs include; Post Clearance Audit, Destination Inspection Scheme, Computerized Risk Management System, Agreement on Customs Valuation and Compliant Traders Scheme.

2.6.1 Post Clearance Audit

This is a trade facilitation tool where goods can be cleared prior to physical examination in Tanzania. The system verifies the accuracy of declaration through the examination of goods, records, business system and all relevant customs commercial data held by persons and companies directly or indirectly involved in international trade.

2.6.2 Destination Inspection Scheme (DSI)

Is the verification of the importers' declaration at the point of destination in Tanzania through certain procedures for the purposes of:-

- Determining the quality and quantity of goods imported;
- Establishing the value of goods as compared to the declaration made by the importer;
- Establishing the country of origin and supplier;
- Determining the applicable customs tariff code under which the goods are to be classified and tax is computed;
- Providing TRA with Computerized Risk Management Database, which assist in determining levels of intervention and valuation process; and
- Enhancing security and international trade facilitation.

2.6.3 Computerized Risk Management System (CRMS)

It identifies risks associated with each import transaction and determines the applicable level of intervention:-

- **Low Risk:** Goods covered by these transactions may be released without physical inspection.
- **Medium Risk:** Consignments will be subjected to X-Ray scanning. In case no discrepancy is detected such goods will be released without physical inspection.
- **High Risk:** Transaction will be subjected to physical inspection by customs officers to

determine compliance.

2.6.4 Agreement on Customs Valuation (ACV)

It is the system of goods valuation known as Agreement on Customs Valuation (ACV). The system provides for use of price actually paid or payable for the goods and forbids the use of arbitrary and fictitious values. This is part of Tanzania's obligation to implement World Trade Organization (WTO) agreement to which Tanzania is a signatory.

2.6.5 Compliant Traders Scheme

This scheme allows the audit exercise to be carried after the goods have been cleared. The scheme was introduced with a view of facilitating trade through speed clearance of imported goods.

2.7 Tax Incentives

2.7.1 Import Duty

It is a relief on the payment of import duty tax for goods and services imported in Tanzania. The exempted from import duty include all importers of raw materials, electronic cash registers, replacement parts, inputs for manufacturing agricultural equipment, inputs for horticulture and agriculture, hotel equipment, computer software, packing materials for manufacturing medicaments and solar equipment and accessories.

2.7.2 Import Duty Drawback

It is a scheme which allows exporters to claim refund of import duties paid on raw materials and other inputs used in the production of goods that are exported from Tanzania. This scheme is used as a measure to remove fiscal obstacles to export development. It include inputs used in production process that do not form part of the qualified product e.g. catalysts and some other chemical agents.

2.7.3 Withholding Tax on Dividends and Interest

It refers to taxes paid by investors with incentive certificates.

2.7.4 Export Processing Zone (EPZ)

It is an area where goods processed or manufactured are exempted from import duty and other taxes.

2.8 Local Government Taxes

Tanzania has two-tier system of Government that is the Central Government and the Local Government, which is at the District, Town, Municipal or City level. Most of the Local Government Authorities collect taxes, fees and levies in: Property Tax, Service Levy, Hotel Levy or Guest House Levy, Slaughtering Fees, Billboards and Sign Fees, Market Fees, Trading License Fees, and Liquor License Fees.

2.8.1 Property Tax

it is charged to owners of properties. Is an important source of revenue for urban councils in Tanzania. Some properties like museums, places of worships, aerodromes and land used for sporting purposes, properties of charitable and educational institutions are exempted from property tax. The rate of the tax is fixed by the local authority (The Councilors) through enacting by-laws depending on the value and location of the property.

2.8.2 Service Levy

This levy is charged on the value of goods manufactured by local industries. It is mainly for urban local authorities and it replaces the industrial cess. All corporate entities, which pay the service levy, are exempted from paying agricultural produce cess. Currently, the levy is charged at a rate of 0.3 percent of the turnover net of VAT for corporate entities

2.8.3 Other taxes and Fees

Most of local authorities charge and collect fees from different sources such as local markets and stores, slaughtering activities, burial services, billboards and sign fees and liquor fees.

2.8.4 Subsidies

It is the funds from Central Government allocated to support the budget for Local Governments recurrent and development expenditures.

PART TWO: SOCIAL SERVICES SECTOR

CHAPTER THREE

DEMOGRAPHIC STATISTICS

Demography is concerned with the description, analysis and understanding of population phenomena. It can therefore be extended to include and to cover the social, economic, historical and political characteristics of the population and related demographic process.

Demographic statistics seek mathematical and statistical descriptions of human population.

3.1 Fertility

Fertility refers to the number of live births women would have during their reproductive age (15-49 years). *It differs from fecundity, which refers to the physiological capability of women to reproduce.*

It is measured by using some of the following indicators

3.1.1 Crude Birth Rate (CBR)

It is the number of live births in a calendar year per 1,000 mid year population.

$$CBR = \frac{\text{Number of births in a calendar year}}{\text{Current year population}} \times 1,000$$

3.1.2 General Fertility Rate (GFR)

It is the number of live births per 1,000 women in the 15-49 years age group in a given year.

$$GFR = \frac{\text{Number of births in a calendar year}}{\text{Mid year population of women 15 - 49 years}} \times 1,000$$

3.1.3 Age-Specific Fertility Rate (ASFR)

It is the number of live births to women in the specific age group per 1,000 women in that specific age group in a given year. For example:

$$ASFR_{(20-24)} = \frac{\text{Number of live births to women aged 20 - 24}}{\text{Number women aged 20 - 24}} \times 1,000$$

3.1.4 Total Fertility Rate (TFR)

It is the average number of children that a woman would have by the time she ended childbearing if she were to pass through all her childbearing years conforming to the age-specific fertility rates of a given year. *In other words it is the number of children a woman would have from age (15-49) if she were to bear children at the prevailing age-specific rates.*

TFR can be represented symbolically as follows;

$$TFR = n \sum_{X=15}^{49} n f_x = n \sum_{X=15}^{49} \left(\frac{{}_n B_x}{{}_n W_x} \right)$$

Where,

n = Number of children,

x = Child bearing age of women from 15 to 49 years,

f_x = Fertility rate at age x ,

${}_n B_x$ = Births at age x ,

${}_n W_x$ = women at age x

3.1.5 Gross Reproduction Rate (GRR)

It is the average number of daughters that would be born to a woman (or a group of women) during her lifetime if she passed through her childbearing years conforming to the age-specific fertility rates of a given year. *This rate is like the TFR except that it counts only daughters and literally measures "reproduction" that is a woman reproducing herself by having a daughter.*

GRR is therefore given as;

$$GRR = \frac{TFR}{(1 + \text{sex ratio at birth})}$$

The GRR is usually expressed as a rate per woman rather than a rate per 1,000 women, it may be expressed symbolically by the formula

$$GRR = \sum f_x$$

Where,

$f_x =$ Fertility rate at age x specific for sex (i.e. female births to females or male births to males)

$\Sigma =$ Over all ages in the reproductive life span

3.1.6 Net Reproduction Rate (NRR)

It is the average number of daughters that would be born to a woman (or a group of women) if she passed through her lifetime from birth conforming to the age-specific fertility and mortality rates of a given year. *This rate is like GRR but is always lower because it takes into account the fact that some women will die before completing their childbearing years.*

$$NRR = \sum f_x l_{x+1/2} / l_o$$

Where,

$f_x =$ Fertility rate at age x specific for sex

$l_{x+1/2} / l_o =$ Probability of surviving from birth to age x + 1/2

$\Sigma =$ Over all ages in the reproductive life span

3.1.7 Replacement - Level Fertility

It is the level at which women in the same cohort have exactly enough daughters (on average) to “replace” themselves in the population. *A Net Reproduction Rate (NRR) of 1.00 is equal to replacement level.*

3.2 Mortality

Mortality refers to deaths that occur within a population. The probability of dying during a given time period is linked to many factors, such as age, sex, race, occupation and social class. The incidence of death can reveal much about a population's standard of living and health care. It is measured using some of the following indicators:

3.2.1 Crude Death Rate (CDR) or Death Rate

It is the number of deaths in a calendar year per 1,000 mid year Population in a given year.

$$CDR = \frac{\text{Number of deaths in a calendar year}}{\text{Mid - year population (Projected population)}} \times 1,000$$

3.2.2 Age-Specific Death Rate (ASDR)

It is the number of deaths among the population in a specific age group per 1,000 of that specific age group in a given year. For example:

$$ASDR_{(20-24)} = \frac{\text{Number of deaths among the population 20-24 years}}{\text{Mid-year population of (20-24) years}} \times 1,000$$

3.2.3 Cause-Specific Death Rate (CSDR)

It is the number of deaths due to a specific cause during a given year per 100,000 population. For example:

$$CSDR_{(Cancer)} = \frac{\text{Number of deaths from cancer in 1 year}}{\text{Mid-year population}} \times 100,000$$

The cause-specific death rates are usually expressed in deaths per 100,000 because for most causes of deaths, rates of occurrence are very low.

3.2.4 Neonatal Mortality Rate (NMR)

It is the number of deaths to infants under 28 days of age in a given year per 1,000 live births in that year.

$$NMR = \frac{\text{Deaths to inf ants under 28 days in a given year}}{\text{Total number of live births in that year}} \times 1,000$$

3.2.5 Infant Mortality Rate (IMR)

It is the number of deaths of infants under the age of 1 year per 1,000 live births in a given year.

$$IMR = \frac{\text{Number of deaths to inf ants under 1 year}}{\text{Total number of live births in that year}} \times 1,000$$

3.2.6 Post Neonatal Mortality Rate (PNMR)

It is the number of infant deaths aged between exactly 4 weeks (28 days) and under 1 year of age per 1,000 live births in a given year.

$$PNMR = \frac{\text{Infant deaths aged between exactly 4 weeks and under 1 year}}{\text{live births (Total births in that year)}} \times 1,000$$

3.2.7 Child Mortality Rate (CMR)

It is the number of deaths of children aged 1 year and above but below 5 years of age per 1,000 live births in a given year.

$$CMR = \frac{\text{Number of deaths aged 1 year but below 5 years}}{\text{Total number of live births in that year}} \times 1,000$$

3.2.8 Under 5 Mortality Rate (U5MR)

It is the number of deaths of children below 5 years of age per 1,000 live births in a given year.

$$U5MR = \frac{\text{Number of deaths between age 0 and 5 in 1 year}}{\text{Total number of live births in that year}} \times 1,000$$

3.2.9 Maternal Mortality Rate (MMR)

This is the number of women who die from any cause related to or aggravated by pregnancy or its management during pregnancy and childbirth or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, per 100,000 live births

$$MMR = \frac{\text{Number of maternal deaths in a given year}}{\text{Total number of live births in that year}} \times 100,000$$

3.2.10 Life Expectancy

It is an estimate of the average number of additional years a person could expect to live if the age-specific death rates for a given year prevailed for the rest of his or her life.

3.2.11 Life Expectancy at Birth

It is an estimate of the average number of years a new born baby would live subject to the mortality risks prevailing for the cross –section of the population at the time of its birth.

3.3 Migration

It is the geographic movement of people across a specified boundary for the purpose of establishing a new permanent or semi permanent residence. The terms "immigration" and "emigration" are used

to refer to movements between countries that is international migration. Corresponding terms to immigration and emigration for movement between areas within a country, that is internal migration are; in-migration and out-migration respectively.

3.3.1 Immigration Rate

It is the number of immigrants arriving at a destination per 1,000 persons at that destination in a given year.

$$\text{Immigration Rate} = \frac{\text{Number of Persons entering an area immigrants}}{\text{Total population in that area}} \times 1,000$$

3.3.2 Emigration Rate

It is the number of emigrants going away from an area of origin per 1,000 of the population at that area in a given year.

$$\text{Emigration Rate} = \frac{\text{Number of persons departing from an area}}{\text{Total population in that area}} \times 1,000$$

3.3.3 Net Migration

It is the net effect of immigration and emigration on an area's population. It may be an increase, a decrease or zero.

3.3.4 Net Migration Rate (NMR)

It is the "net migration" of an area per 1,000 of the population of that area in a given year.

$$\text{NMR} = \frac{\text{Number of immigrants} - \text{Number of Emigrants}}{\text{Total Population in that area}} \times 1,000$$

3.4 Population Change

Population change has three components: births, deaths and migration. As people are born, die or move their total number in an area change.

3.4.1 Natural Increase (NI)

It is the surplus (or deficit) of births over deaths in a population in a given time period.

$$NI = B - D$$

Where,

NI is the natural increase during a period

B is the number of births and

D is the number of deaths during that period.

3.4.2 Rate of Natural Increase (RNI)

It is the increase or decrease of the population in a given year due to surplus (or deficit) of births over deaths, expressed as a percentage of the base population. *The RNI does not take into account the effects of immigration and emigration.* For example;

$$RNI_{Year} = \frac{\text{Births in Year} - \text{Deaths in Year}}{\text{Total Population at year}} \times 100$$

The rate of natural increase can also be calculated from birth and death rates.

$$RNI = \frac{\text{Births Rate} - \text{Deaths Rate}}{10}$$

3.4.3 The Balancing Equation

It is the basic method of calculating numerical population change over time. The following is the equation;

$$P_t = P_0 + (B - D) + (I - E)$$

Where,

P_t = Population at a later date/ Pop at time t

P_0 = Population at an earlier date/ base year pop

B = Births between the two dates

D = Deaths between the two dates

I = Immigrants between the two dates

E = Emigrants between the two dates

3.4.4 Population Growth Rate (GR)

It is the rate at which a population is increasing (or decreasing) in a given year due to natural increase and net migration, expressed as a percentage of the base population. *The growth rate takes into account all components of population growth: births, deaths, and migration.* For example;

$$GR_{1988} = \frac{(Births\ 1988 - Deaths\ 1988) + Net\ migration\ 1988}{Total\ Population\ in\ 1988} \times 100$$

3.4.5 Inter-Censal Growth Rate

It is the rate at which a population increases (or decreases) between two population censuses. This is obtained from the following formula;

$$P_t = P_o e^{rt}$$

Where;

P_t = Population at time t

P_o = Base year population

e = Exponential

r = Growth rate

t = Time

Growth rate r is derived as follows

$$\left(\frac{P_t}{P_o}\right) = e^{rt}$$

$$\ln\left(\frac{P_t}{P_o}\right) = \ln(e^{rt}) = rt$$

$$r = \frac{\ln\left(\frac{P_t}{P_o}\right)}{t}$$

3.4.6 Population Doubling Time

This is a time a population would take to double its size at its current growth rate. A quick way to approximate doubling time is to divide 70 by the growth rate expressed as a percent.

$$PDT = \frac{70}{Growth\ Rate\ (\%)}$$

3.5 Other Demographic Concepts

3.5.1 Age - Dependence Ratio

It is the ratio of persons in the “dependent” ages (generally under 15 and over 64) to those in the “economically active” ages (15 – 64) in a population.

$$ADR = \frac{Pop(\text{below age 15} + \text{age 64+})}{Pop (15 - 64 \text{ years})}$$

3.5.2 Nuptiality

It refers to marriage as a population phenomenon, including the rate at which it occurs, the characteristics of persons in marriage, and the dissolution of such unions through divorce, separation, widowhood, and annulment.

3.5.3 Fecundity

It is a physiological ability of a woman to conceive.

3.5.4 Sterility

It is the inability of a woman to conceive. It can either be primary or secondary.

CHAPTER FOUR

EDUCATION STATISTICS



4. Literacy

It is the ability to read and write to a competent level. It excludes the ability to only write or sign one's own name or write memorized phrases. The ability to read and write may be in any language.

4.1 Literacy Rate

This is the proportion of the population of specified age group who can read and write expressed as a percentage of the total persons of that age group.

4.1.1 Illiteracy Rate

This is the proportion of the population of specified age group who cannot read and write expressed as a percentage of the total persons of that age group

4.2 Education

A process of teaching, training and learning especially in schools or colleges to improve knowledge and skills.

4.2.1 Formal Education

It is the education provided in the system of schools, colleges, universities and other educational institutions that normally constitute a continuous ladder of full - time education for children, and young people, generally beginning at an age of five, six or seven and continuing up to 20, 25 or more years of age

4.2.2 Non-Formal Education

Any organized educational activity outside the established formal system - whether operating separately or as an important feature of some broader activity - that is intended to serve identifiable learning clienteles and learning objectives

4.2.3 Informal Education

Refers to any organized and sustained educational activities that do not follow any approved curriculum.

4.2.4 Educational System

It is the overall network of institutions and programmes through which education of all types and levels is provided to the population.

4.2.5 Educational Programme

It is a set of organized and purposeful learning experiences with a minimum duration of one school or academic year usually offered in an educational institution.

4.2.6 Universal Primary Education (UPE)

Means full enrolment of all children in the primary school – age group (7-13) that is 100 percent Net enrolment Ratio.

4.2.7 Course

A planned series of learning experiences in a particular subject matter area or a set of skills, usually offered by an educational or training institution or programme for one or more students/learners.

4.2.8 Grade

It is a stage of instructions usually covered in one academic year.

4.2.9 Pupil

A young person who is enrolled in an educational programme. Usually *pupil* refers to a child enrolled in primary school.

4.2.10 Student

It is a young person or an adult enrolled at more advanced levels.

4.2.11 Graduate

It is a pupil or student who successfully completes a level of education such as primary, secondary or university education.

4.2.12 School-age Population

It is the number of persons in the officially defined school age- group, whether enrolled in school or not *in a specified area*

4.2.13 Gross Enrolment Ratio (GER)

Number of pupils enrolled in a given level of education, regardless of age, expressed as percentage of the population in relevant official age group.

Example for primary education

$$GER = \frac{\text{Total Pupils (enrolled in grade I – VII)}}{\text{Total children 7 – 13 old years}} \times 100$$

4.2.14 Primary School Gross Enrolment Ratio

The total number of children enrolled in primary school that is in classes I-VII, regardless of age, expressed as a percentage of the total number of children in the relevant age - group for primary school education, which is 7-13 years age - group.

4.2.15 Secondary School Gross Enrolment Ratio

The total number of students enrolled in secondary schools expressed as a percentage of the total number of persons in the relevant age group for secondary school education, which is the 14-17 years age - group.

4.2.16 Vocational Training School Gross Enrolment Ratio

The total number of students enrolled in vocational training schools expressed as a percentage of the total number of persons in the relevant age - group for vocational education, which is the 14-17 years age group.

4.2.17 Net Enrolment Ratio (NER)

It is the total number of pupils/students in the official school-age group expressed as a percentage of the total population in that age group. Example for Primary Education

$$NER = \frac{\text{Grade I – VII pupils aged 7 – 13 years}}{\text{Total 7 – 13 years old children}} \times 100$$

4.2.18 Drop-out Rate (DR)

It is the percentage of pupils enrolled in a given grade or cycle or level of education in a given school year who are no longer enrolled in the following school year.

$$DR = \frac{\text{Dropouts in a Grade in year } N}{\text{Enrolment in that Grade in year } N} \times 100$$

4.2.19 Transition Rate (TR)

The number of pupils (or students) admitted to the first grade of a higher level of education in a given year, expressed as a percentage of the number of pupils (or students) enrolled in the final grade of the lower level of education in the previous year.

4.2.20 Promotion Rate

It is the percentage of pupils promoted to the next grade in the following school year.

$$PR = \frac{\text{Promoted to a Grade in year } N + 1}{\text{Enrolment in that Grade in year } N} \times 100$$

4.2.21 Repetition Rate

It is the proportion of pupils enrolled in a given grade and in a given school year who study in the same grade the following school year.

$$RR = \frac{\text{Repeaters in a Grade in year } N + 1}{\text{Enrolment in that Grade in year } N} \times 100$$

4.2.22 Mean Years of Schooling

The total number of years of schooling received by persons aged 25 years and above divided by the total number of persons aged 25 years or older.

$$MYS = \frac{\sum_{x=25}^N y_x}{\sum_{x=25}^N p_x}$$

Where,

MYS = Mean Years of Schooling

y_x = Years from age 25 years and above

N = Age above 25 years

p_x = Persons with years from age 25 years and above

Σ = Sum

4.2.23 Mean Age Enrolment for Primary School

It is the average age of enrolment in Primary schools.

4.2.24 Teacher

A person who on his/her professional capacity guides and directs pupil learning experiences in gaining knowledge, attitudes, and skills that are stipulated by a defined curriculum programme.

4.2.25 Full-time Teacher

A person engaged in teaching for specified number of hours per week according to official regulations in the country.

4.2.26 Part- time Teacher

A teacher employed for less than the normal or statutory number of hours of work for a full-time teacher over a complete school year.

4.2.27 Pupil/Teacher Ratio (Primary School)

Number of primary school pupils per teacher.

$$PTR = \frac{\text{Number of Primary Pupils}}{\text{Total Number of teachers}}$$

4.2.28 Student/Teacher Ratio (Secondary School)

Number of secondary school students per teacher.

$$STR = \frac{\text{Number of Secondary Pupils}}{\text{Number of teachers}}$$

CHAPTER FIVE

HEALTH STATISTICS



Health is a state of physical, social and mental well-being: it is not the absence of disease or infirmity. The health status helps to show the welfare of a person. On the other hand, poor health status represents a major manifestation of poverty. Inadequate health services, lack of food, safe water, income or education are inter-linked factors.

Health and medical statistics incorporate a variety of data types. The most common statistics reported are vital (birth, death, marriage, divorce rates), morbidity (incidence of disease in a population) and mortality (the number of people who die of a certain disease compared with the total number of people). Other common statistical data reported are health care costs, the demographic distribution of disease based on geographic, ethnic, and gender variables, and data on the socioeconomic status and education of health care professionals

5. Morbidity

It is the relative frequency of occurrence of disease, illness, injuries, and disabilities in a population.

- Disease is a disorder with a specific cause and recognizable signs and symptoms; any bodily abnormality or failure to function properly, except that resulting directly from physical injury.
- Illness refers to poor health resulting from disease of body or mind.
- Injury is a disease or impairment of a person's body or mind.

5.1 Disease Incidence

Measures the number of new cases of a particular disease arising in a population at risk in a certain time period.

5.2 Disease Prevalence

Measures all cases of the disease existing at a point in time.

Alternatively: $Prevalence = Incidence \times Average\ duration$

5.3 Notifiable disease.

Is any disease that is required by the law to be reported to the government authorities to allow monitoring of the disease and provide early warning of possible outbreaks

5.4 Sanitation

Is the hygienic means of promoting health through prevention of human contact with the hazards of wastes.

5.5 Family planning

Refers to the planning of when to have, and the use of birth control and other techniques to implement such plans.

5.6 Trachoma

Is an infectious eye disease, and leading cause of world's infectious blindness.

5.7 Antenatal care

Concerns with the care and treatment of unborn child and pregnant woman (antenatal clinic).

5.8 Medicine

Is a science and art of healing it encompasses variety of health care practices evolved to maintain and restore health by the prevention and treatment of illness.

5.9 Diagnosis

Is an art of identifying a disease from its signs and symptoms.

5. 10 Impairment

Impairment is any loss or abnormality of psychological or anatomical structure or function.

5.11 Disability

It is any restriction or lack (resulting from impairment) of ability to perform an activity in the manner or within the range considered normal for a human being. It is a limitation in regard to the kind or amount of activities a person can do due to long-term physical condition, mental condition or health problem.

5.12 Handicap

Handicap is the condition of being unable to perform as a consequence of physical and mental unfitness (depending on age, sex, social and cultural factors) for that individual e.g. reading disability or hearing disability.

5.13 Orphan

It is a child under 18 years who has lost one or both parents.

5.13.1 Maternal Orphan

It is a child under age 18 years who has lost his/her mother

5.13.2 Paternal Orphan

It is a child under 18 years who has lost his/her father

5.14 Doctor Patient Ratio

This is the number of people served by one doctor.

$$DPR = \frac{\text{Number of Patients}}{\text{Doctor}}$$

5.15 Nurse Patient Ratio

Refers to number of patients attended by one Nurse.

5.16 Hospital Beds

A bed used for patients (as in hospital) that can be adjusted, especially to raise the head end, foot end or middle as required.

- **Licensed Beds:** The maximum number of beds for which a hospital holds a license to operate. Many hospitals do not operate all of the beds for which they are licensed.
- **Physically Available Beds:** Beds that are licensed physically set up, and available for use. These are beds regularly maintained in the hospital for the use of patients, which furnish accommodations with supporting services (such as food, laundry, and housekeeping). These beds may or may not be staffed but are physically available.
- **Staffed Beds:** Beds that are licensed and physically available for which staff is on hand to attend to the patient who occupies the bed. Staffed beds include those that are occupied and those that are vacant.

- **Un-staffed Beds:** Beds that are licensed and physically available and have no current staff on hand to attend to a patient who would occupy the bed.
- **Occupied Beds:** Beds that are licensed, physically available, staffed, and occupied by a patient.
- **Vacant/Available Beds:** Beds that are vacant and to which patients can be transported immediately. These must include supporting space, equipment, medical material, ancillary and support services, and staff to operate under normal circumstances. These beds are licensed, physically available, and have staff on hand to attend to the patient who occupies the bed.

5.17 Anthropometric Measurements

Anthropometric Measurements are used to assess the nutritional status of children by collecting anthropometrics data which includes age, height and weight measurement. The nutrition status indicators are categorized in three standard indices which are:

- **Height - for- Age (Stunting)**

Stunting is the outcome of failure to receive adequate nutrition over an extended period and is also affected by recurrent or chronic illness. Children whose height- for- age is below minus two standard deviations from the median of reference population are stunted or short for their age.

- **Weight - for- Height (Wasting)**

Wasting represents the failure to receive adequate nutrition in the period immediately before the survey, and typically is the result of recent illness episodes especially diarrhea, or a rapid deterioration in food supplies. Children whose weight- for- height is below minus two standard deviations from the median of reference population are considered wasted or thin.

- **Weight - for- Age (Underweight)**

Underweight reflects the effects of both acute and chronic under nutrition. Children whose weight -for -age is below minus two standard deviations from the median of the reference population are considered underweight.

5.18 Body Mass Index (BMI)

Body Mass Index (BMI) is a number calculated from a person's weight and height. BMI provides a reliable indicator of body fatness for most people and is used to screen for weight categories that may lead to health problems.

Alternatively: Body mass index (BMI) is a measure of body fat based on height and weight that applies to both adult men and women (except for pregnant women).

$$BMI = \frac{Weight(Kg)}{(Height(m))^2}$$

BMI Categories:

- Underweight = <18.5
- Normal weight = 18.5-24.9
- Overweight = 25-29.9
- Obesity = BMI of 30 or greater

5.19 Anemia

A condition in which the blood is deficient in red blood cells or oxygen-carrying proteins. Hemoglobin is the oxygen-carrying pigment in the blood, the predominant protein in the red blood cells. In the routine laboratory test for hemoglobin (Hb), it is usually measured as total hemoglobin and the result is expressed as the amount of hemoglobin in grams (gm) per deciliter (dl) of whole blood a deciliter being milliliters.

The normal ranges for hemoglobin depend on the age and beginning in adolescence and the sex of the person.

The normal ranges are:

Newborns: 17-22 gm/dl

One (1) week of age: 15-20 gm/dl

One (1) month of age: 11-15gm/dl

Children: 11-13 gm/dl

Adult males: 14-18 gm/dl

Adult women: 12-16 gm/dl

Men after middle age: 12.4-14.9 gm/dl

Women after middle age: 11.7-13.8 gm/dl.

Any person falling in the above specified groups, whose hemoglobin is below the respectively specified group will be termed to have Anemia.

5.20 Low Birth Weight

Low Birth Weight refers to infants who weigh less than 2.5 kg at birth.

5.21 Arm Circumference

Refers as a Public Health Index of Protein-Calories Malnutrition of early childhood. Arm circumference indicators of nutritional status are such as simple arm circumference, arm circumference-for-age and arm circumference-for- height.

5.22 Outpatient attendance ratio.

Refers to total number of OPD attendance in a year divided by total population in a year.

5.23 Proportion of births attended in health facility

Refers to number of deliveries conducted in health facilities divided by projected number of births.

5.24 Proportion of births attended by skilled health personnel

Refers to number of deliveries conducted by skilled health personnel divided by projected number of births

5.25 Pharmacist patient ratio

Refers to number of people served by one pharmacist

5.26 Nurse midwife patient ratio

Refers to number of people (pregnant women) served by one nurse midwife.

5.27 Contraceptive prevalence rate.

Refers to number of contraceptive active users excluding condom or including condom divided by number of women of child bearing age.

CHAPTER SIX

LABOUR AND PRICE STATISTICS



6. Labour Statistics

These statistics are concerned with economic activity of the population. They cover employment, under-employment, unemployment and related aspects. The statistics are collected through censuses, labour force surveys, establishment surveys and the administrative records.

6.1 Economic Production

Is the production of goods for the market and for own final consumption as well as the production of services for the market. It particularly excludes the production of domestic and personal services for consumption within the same household e.g. the preparation of meals, care and training of children, cleaning and repairing.

6.1.1 Economically Active Persons

These are persons who supply labour for economic production as defined in 6.1. They may be employed or unemployed provided they are employable. Economically active persons are therefore the sum of the employed and the unemployed.

6.1.2 Not Economically Active Persons

These are persons who are neither employed nor unemployed during the reference period. For the short reference period they are termed “currently not economically active” and for the long reference period they are known as “usually not economically active”. They include persons doing unpaid domestic work in their own homes, students, the sick, the aged, those who have retired, and so on. Note that these persons are considered to be economically active if they did any economic activity in the reference period.

6.1.3 The Reference Period

Is the time to which the statistical data or statistics relate to or refers to. In the context of labour statistics there are usually two reference periods; the short reference period and the long reference period.

- **The Short Reference Period**

It is usually a seven days period or a week but it could as well be a day or a month. The data and statistics relating to the short reference period are said to be current. Hence we talk of the current economically active population, the currently employed or unemployed persons, the current occupation etc. The currently economically active population is also known as the Labour Force.

- **The Long Reference Period**

It is usually a twelve-month period (or a year). The data and statistics relating to the long reference period are said to be usual. Hence we talk of the usually economically active population, the usually employed or unemployed persons and the usual employment status.

6.1.4 Employed Persons

These are persons (usually above a specified age) who did some work in the reference period for payment in cash or kind (employees) or who were self employed for profit or family gain. Also included are persons who were temporarily absent from work due to for instance; vacation, illness, weather, machinery breakdown, industrial disputes and family or community obligations. However in activities like agriculture where there may be an off-season, for instance during the dry season, persons absent from work due to this are not considered to be temporarily absent. However in the case of the short, one-week, reference period persons are considered to be temporarily absent from work only if: For regular and temporary employees; they have been away from work for a period not exceeding 4 months For the self-employed; they have been away from work for a period not exceeding 1 month provided their businesses were continuing during their absence.

Note: Casual employees and unpaid helpers if absent from work for whatever reason are not considered to be employed.

6.1.5 Currently Under-employed Persons

These are Persons who worked less than 40 hours per week due to economic reasons but were available for more work in the reference week. Excluded are those persons on leave, at school and similar non-economic reasons. Those persons whose benefits and incomes from working (whether over 40 hours or under, per week) are not satisfactory are included in this group. It

should, however, be noted that the number of 40 hours per week is the most common minimum working hours in Tanzania.

6.1.6 Currently Not under-employed Persons

These are Persons who worked 40 or more hours per week in the reference period. Included are those persons who worked for less than 40 hours per week due to non-economic reasons such as being on leave, sick, at school and similar non-economic reasons. Similarly those persons whose benefits and incomes from working are satisfactory are included in this group.

6.1.7 Unemployed Person (Unemployment)

There are three definitions; Tanzanian Definition, Relaxed International Definition and the International Definition. These definitions are also illustrated in figure 6.1.



a) Unemployed Persons (Tanzania Definition)

These refers to persons who are unemployed as defined under Relaxed International Definition, plus those who state that their work, during the reference period, was not reliable and adequate in terms of availability and hours of work. In addition, it refers to persons who during the reference period were absent from their work for the reason of their job or land for cultivation being unsuitable or because the reference period is part of the off-season or lack of raw materials, equipment and finance.

b) Unemployed Persons (Relaxed International Definition)

These are persons (usually above a specified age) who during the reference period were:

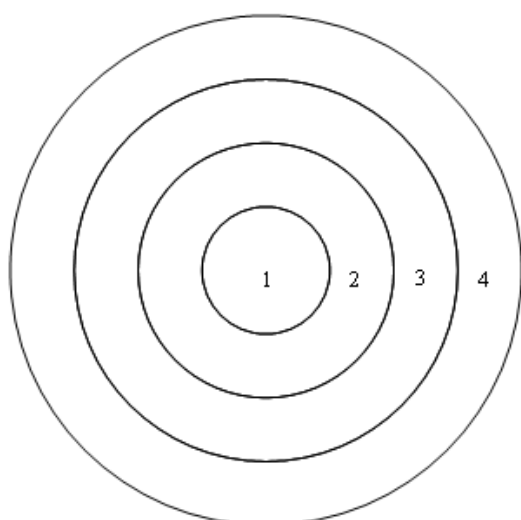
- Without work i.e. were neither in paid employment nor in self employment Available for work, whether paid or self-employment.

c) Unemployed Persons (International Definition)

These are persons (usually above a specified age) who during the reference period were:

- Without work i.e. were neither in paid employment nor in self employment
- Available for work, whether paid or self employment
- Seeking work i.e. had taken specific steps in a specified period to seek paid employment or self-employment.

Figure 6.1: Classification of the Economically Active Population



Economically Active Population

Is equal to $1+2+3+4$

Employed Population

Tanzania Definition = 1

Relaxed International Definition = $1+2$

International Definition = $1+2$

Unemployed.

Tanzania Definition = $2+3+4$

Relaxed International Definition = $3+4$

International Definition = 3

Key:

- 1. = Persons with work and adequate work in terms of availability and hours worked.
- 2. = Persons with work but inadequate work in terms of availability and hours worked.
- 3. = Persons without work, available for work and seeking for work.
- 4. = Persons without work, available but not seeking for work.

6.1.8 Unemployment Rate

It is the number of unemployed persons as a percentage of the economically active population, which in turn is the sum of the employed and unemployed.

6.1.9 Status of Employment

It classifies the job and therefore the person holding that job according to the type of economic risks the job entails, and the control the person in that job has over the establishment and other workers. Status of employment classifies employed person into; employees, employers, own-account workers, and unpaid family helpers.

6.1.10 Employees

Persons who during the reference period performed some work for pay in cash or in kind or who were temporarily absent from such work as explained under 6.1.4. It therefore includes person employed under permanent, temporary or casual terms.

6.1.11 Regular Employees

These are all permanent and temporary wage earners and salaried persons who were engaged throughout the working days of the reference month.

6.1.12 Casual Workers

These are all persons receiving daily wages and permanent or temporary wage earners and salaried persons who were engaged for a period of less than one month during the reference month.

6.1.13 Self Employed (non-agriculture)

Persons who during the reference period performed some work for profit or family gain in their own enterprise provided that enterprise is not a farm or shamba or were temporarily absent from such work.

6.1.14 Unpaid Family Helpers (non-agriculture)

Persons working completely without payment in cash or kind in family enterprises provided those enterprises are not farms or shambas.

6.1.15 Self Employed (agriculture)

Includes the self employed and unpaid family helpers on their own or family farms and shambas. The farms may be in regard to agriculture, livestock, forestry or fishing.

6.1.16 Sectors of Employment

It is the legal, social and institutional status of the establishment in which a person works that is where the job is located. There are two broad sectors namely; public sector and private sector. The public sector is comprised of government and parastatal sub-sectors. The private sector comprises formal private sector and informal private sector.

6.1.17 Government Sector

It includes person working for establishments under the central, regional or local governments and other public government institutions.

6.1.18 Parastatal Sector

It includes persons who work for a wide range of establishments, which are owned up to at least 50 percent by some branch of the government. The establishment may be either profit making or not.

6.1.19 Agricultural Private Sector

Includes all persons who state that they are working on their own or family farm or shamba either in agriculture, livestock or fishing or as paid employees on similar establishments.

6.1.20 Non-agricultural (Formal) Private Sector

Includes all private activities other than agriculture e.g. Non Governmental Organization, Religious Organization, Political Parties, and Cooperative Union.

6.1.21 Non-agricultural (Informal) Private Sector

It includes persons working in non-agricultural household enterprises or unincorporated non-Agricultural enterprises owned by households. These enterprises are not separate legal entities independent of the related households. Also they do not keep a complete set of accounts, which permit a clear distinction of their production activities from the other activities of their owners and the identification of flows of income and capital between the enterprises and the owners. The enterprises may or may not employ paid labour and the activities may be carried out inside or outside the owner's home.

6.1.22 Underutilization Rate

It combines the number of unemployed persons and the number of persons underemployed (those who are working but want to increase the number of hours they work) as a proportion of the labour force.

6.1.23 Employment-to-Population Ratio

Is the currently employed population aged 15 to 64 years, as percentage of the total population aged 15 to 64 years.

6.2 Price Statistics

6.2.1 Consumer Price Index (CPI)

CPI is a measure estimating the average price of consumer goods and services purchased by households. It measures a price change for a constant market basket of goods and services from one period to the next within the same area (city, region, or nation).

6.2.2 Price Index

Price index is a normalized average of prices for a given class of goods and services in a given region, during a given interval of time. It is a statistic designed to help to compare how these prices, taken as a whole, differ between time periods or geographical locations.

6.2.3 Laspeyres Price Index

Is the Price Index taking the bundle of goods using current prices and current quantities as the numeraire.

6.2.4 Paasche Price Index

Is the price index where the numeraire is the bundle of goods using base year prices but current quantities.

6.2.5 Inflation

Inflation is defined as a sustained increase in the general level of prices for goods and services over a period of a year.

Several variations on Inflation:

Deflation is when the general level of prices is falling.

Hyperinflation is unusually rapid inflation. In an extreme cases, this can lead to the breakdown of a nation`s monetary system.

Stagflation is the combination of high unemployment and economic stagnation with inflation.

CHAPTER SEVEN

POVERTY AND WELFARE STATISTICS

7. Poverty

It is the state of deprivation, prohibitive of a decent human life. Poverty is a result of many and often mutually reinforcing factors, including lack of productive resources to generate material wealth, illiteracy, prevalence of diseases, discriminative socio-economic and political systems, natural calamities such as drought, floods, HIV and AIDS and man-made calamities such as wars.

7.1 Welfare

It is the level or standard of living of an individual, household or community. Two approaches are commonly used to measure welfare. The first approach is in terms of needs satisfaction. The more an individual, household or community satisfies its needs, the higher the level of welfare and vice versa.

The second approach is in terms of the household's command over resources in terms of food, money, property, health, schooling, working conditions, housing, security against crime, means of transport & communication as well as liberty. This enables individuals to have the capacity to satisfy their needs and broaden their opportunities and choices.

7.1.1 Human Poverty Index (HPI)

Measures deprivations in the three basic dimensions of human development such a lack of a long and healthy life, lack of knowledge and lack of a decent standard of living.

7.1.2 Poverty Head Count Ratio

The *poverty headcount ratio* is the proportion of the national population whose incomes are below the official threshold (or thresholds) set by the national government. National poverty lines are usually set for households of various compositions to allow for different family sizes. Where there are no official poverty lines, they may be defined as the level of income required to have only sufficient food or food plus other necessities for survival.

7.1.3 Poverty line

A poverty line typically specifies the income (or level of spending) required to purchase a bundle of essential goods (typically food, clothing, shelter, water, electricity, schooling and reliable healthcare). Or it implies a minimum consumption expenditure level required by a person to procure a standardized basket of goods and services to satisfy basic needs.

7.1.4 Food Poverty

Food poverty is the inability to access a nutritionally adequate diet and the related impacts on health, culture and social participation.

7.1.5 Food Poverty line

This is the cost of buying the food bundle or basket that can provide the minimum nutritional requirements of a poor person. It is calculated by having prices of all food items in the basket.

7.1.6 Basic Needs Poverty line

This is the cost of expenditure on non-food essentials.

7.1.7 Gini Coefficient

The Gini coefficient is a measure of statistical dispersion, commonly used as a measure of inequality of income distribution or inequality of wealth. The Gini coefficient can range from 0 to 1; it is sometimes multiplied by 100 to range between 0 and 100. A low Gini coefficient indicates a more equal distribution, with 0 corresponding to complete equality, while higher Gini coefficients indicate more unequal distribution, with 1 corresponding to complete inequality. To be validly computed, no negative goods can be distributed. Thus, if the Gini coefficient is being used to describe household income inequality, then no household can have a negative income. When used as a measure of income inequality, the most unequal society will be one in which a single person receives 100% of the total income and the remaining people receive none ($G=1$); and the most equal society will be one in which every person receives the same percentage of the total income ($G=0$).

7.1.8 Indicator

It is a measure that reflects progress, stagnation or deterioration in a particular phenomenon or situations such as literacy, economic, health and poverty over time.

7.1.9 Monitoring

It is a process of following up the course of an event or process towards a pre-determined destination or target.

For monitoring purposes the following are essential requirements:

- There must be a set of monitoring indicators that will be used to measure changes in a given situation over time.
- A monitoring system must be in place. This includes actors or institutional set-up, the frequency of monitoring and the mode of monitoring.

7.1.10 Food Security

Food security refers to a situation under which an individual, household or community has access to an adequate supply of food throughout the year. This situation is determined by the amount of available food in relation to actual daily calorific requirement of the individual, household or community. Food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life.

7.1.11 Food Insecurity

Is a situation where by a Household/Village/District/Regional/National level faces food deficit. For example, percentage of household with adults eating less than 2 meals a day (1 meal or no meal), and percentage of children aged 6 months to 59 months eating less than 3 meals per day, can be a cut off point for households considered food insecure. It also relates to the nutrition status of a family and food shortage at the household level. However, the criteria are subjective and may need other objective criteria to specify food insecurity at the household level.

7.2 Human Development Indices

Human Development is a process of enlarging people's choice at all levels of development. The process therefore, focuses on formulation of human capabilities such as improved health, knowledge and skills and utilization of their acquired capabilities.

7.2.1 Human Development Index (HDI)

Is a summary measure of human development. It measures the average achievements in three basic dimensions of Human Development indicated as;

$$HDI = LEI + LRI + GDPI$$

- A long and health life, measured by life expectancy at birth.

$$LEI = \frac{LE - 25}{85 - 25}$$

Where; LEI is Life Expectancy Index

- Knowledge, measured by adult literacy rate and the combined primary, secondary and tertiary gross enrollment.

$$LRI = \frac{2}{3} ALR + \frac{1}{3} GER$$

- A decent standard of living, as measured by GDP per capita.

$$GDPI = \frac{\log(GDP) - \log(100)}{\log(4000) - \log(100)}$$

7.2.2 Life Expectancy at Birth.

It is an estimate of the average number of years a new born baby would live subject to the mortality risks prevailing for the cross – section of the population at the time of its birth.

7.2.3 Literacy Rate

It is the number of literate persons of a specified age group expressed as a percentage of total persons of that age group.

7.2.4 Gross Enrolment Ratio

It is the total enrolment of pupils in grade or cycle or level of education regardless of age, expressed as a percentage of the corresponding eligible official age-group population in a given school year.

7.2.5 Gross Domestic Product

Refers to the sum of the gross values added of all resident institutional units engaged in production plus any taxes, and minus any subsidies on products not included in the value of their outputs.

a) Gross Domestic Product at Market Prices

Refers to the producers' value of the gross output of Resident Producers less the purchasers' values of their intermediate Consumption plus import duties.

b) Gross Domestic Product at Factor Cost

Refers to the value of all goods and services produced by the Resident without including *the excess of indirect taxes over subsidies*.

7.2.6 Human Poverty Index (HPI)

The HPI measures poverty in developing countries. It brings together in one composite index the deprivation in four basic dimensions of human life - a long and healthy life, knowledge, economic provisioning and social inclusion.

7.2.7 Probability at Birth of Not Surviving to Age 40

Is calculated as 1 minus the probability of surviving to age 40 for a given cohort. Probability of new-born infant surviving to age 40 is subject to prevailing patterns of age-specific mortality rates.

7.2.8 Improved/Unimproved Water Sources

Improved water source includes, piped water, public and private well (protected), spring (protected). While unimproved water source refers to public and private well (unprotected), spring (unprotected), river, dam and lake.

7.2.9 Gender-Related Development Index (GDI)

The GDI measures achievements in the same dimensions and 3 – 2 variables as the HDI; but captures inequalities in achievement between women and men. The greater the gender disparity in basic human development, the lower a country's GDI compared with its HDI.

7.2.10 Gender Empowerment Measure (GEM)

It measures the disparity of active participation of women and men in key areas of economic and political life as well as decision-making.



7.3 Statistical Unit

This is the social entity from which the required data are collected.

7.3.1 Household

It is a socio-economic unit that consists of one or more persons with common living and catering arrangements. Such persons are usually not always related to each other by blood or by marriage.

- One-person household is a household where a person lives alone in a whole or part of a housing unit and has an independent consumption.
- Multi-person household is a household where a group of two or more persons occupy the whole or part of a housing unit and share expenses. Usually, households of this type consist of a husband, wife and children. Other relatives, boarders, visitors and other persons are included as members of the household if they pool their resources and share their consumption.

- Household servants are counted as members of a household if and only if they are taking their meals in that household and recognize the head of the household as their head.
- Lodger/resident: A person who shares residence and meals by contributing is considered as a household member. But if he/she does not contribute and does not share meals with his/her resident he/she will be counted as a different household.
- A husband with more than one wife and spends his time in more than one household is counted as a household member if he spends at least more than half of his time in that household.

7.3.2 Head of Household

Head of household will mainly be used as a reference point, i.e. a person recognized as such by the rest of the members of the household to be the head. Often he/she is responsible for the financial support and welfare of the household members.

7.3.3 Housing/Dwelling Unit

This is all the living space occupied by one household regardless of the physical arrangement of facilities available. It may be one room or more occupied by lodgers or it may be one, two or more housing units occupied by an extended family.

7.3.4 Household Budget

This comprises of household income and household expenditure both in cash and in kind.

7.3.5 Household Income

This is made up of:

- Wages, salaries, bonuses and others
- Net profit from farming and non-farming activities
- Property income such as rent, royalties, interest and dividends
- Transfer payments received such as an assistance payment, pension and others
- Income in kind: the value of goods and services received and consumed (including imputed rental value of owner occupied dwelling or received free from other sources)
- Other cash receipts such as insurance proceeds, lottery winnings and other "windfall" gains.

7.3.6 Household Expenditure

It consists of:

- The amount spent on goods and services used for living purposes
- The value of goods and services received as part of pay, home produced and consumed items (including rental value of owner occupied dwelling) or received from other sources
- The amount spent for taxes, contributions, insurance premiums, lottery tickets, interest on debts and other non-consumption items.

7.3.7 Household Direct Expenditure (Consumption Expenditure)

This refers to expenditure on goods and services incurred by the household during the reference period for direct consumption by the household. This involves foods, non-durables, semi-durables, and durable goods and services. It includes taxes and duties paid, pensions and security contributions, remittances, gifts and other transfers.

7.3.8 Household Indirect Expenditure (Domestic Non- Consumption Expenditure)

This refers particularly to transfers such as direct taxes, interest, legal aid charges, fees, fines and penalties, contributions during funerals, mosques, schools and churches as well as gifts received and other transfer.

CHAPTER EIGHT

CRIME, JUSTICE AND SECURITY STATISTICS

8. Introduction

Crime, Justice and Security Statistics covers statistics from Tanzania Police Force, Judiciary of Tanzania, Tanzania Prison Services, Probation and Prosecution. It is to be noted that the criminal justice system is very complex, involving Police, Prosecution, Judiciary, Prison and probation as well as social economic situation in which crimes occur.

The following points should be taken into consideration when dealing with criminal justice and security statistics:

- (a) When comparing figures it should be realized that police and judiciary figures are based on offences but prison figures are based on offenders, and that many offenders are sentenced for more than one offence.
- (b) Offences can sometimes be reclassified during the court process, usually downwards through prosecution to final court sentence. This is usually due to evidence not being as robust as at first thought.

8.1 Police Statistics

The Tanzania Police Statistics is responsible for collecting, analyzing, storing and disseminating criminal offences and road traffic offences statistics. Criminal offences are divided into three categories; offences against person, offences against property and offences against public tranquility.

8.1.1 Criminal offences

Are defined as offences that are punishable by laws.

8.1.2 Road traffic offences

Includes road accidents, road accidents causing deaths, and road accidents causing injuries and damages of vessels.

8.1.3 Accidents

An un-intended event that involves property damage or personal injury or loss of life (deaths) as a result of motor vehicle in motion or any other moving object

8.1.4 Vehicle

A machine or implement of any kind drawn or propelled along roads whether by animal, mechanical, electrical or any other motive power.

8.1.5 Motor Vehicle

Means any propelled vehicle intended or adapted for use in roads

8.1.6 Offence

Is an act or omission forbidden by law.

8.1.7 Offences against person

Are offences which affect the personality of a person and his/her life. These offences include murder, rape, unnatural offence, child theft and child dissertation.

8.1.8 Offences against property

Are offences associated with any kind of property which is either under individual ownership, company ownership or public ownership. It includes stealing of arms, armed robbery, robbery with violence, burglary, theft, motorcycle theft, motor vehicle theft, counterfeit notes, stock theft, theft in banks, theft in public corporations, theft in co-operatives, theft in local Government, theft in Central government, theft in political parties, arson, fire accidents, and frauds.

8.1.9 Offences against public tranquility

Are offences against society's ethics such as drug abuse, bhang, khat (*mirungi*), Government trophies, corruption, smuggling, illicit liquor (*moshi*), etc.

8.1.10 Murder

Is the death caused by of another person by any unlawful act or omission.

Murder may be lawful and therefore not punishable.

8.1.11 Robbery

Is stealing of anything, and, at or immediately before or immediately after the time of stealing it, the robber uses or threatens to use actual violence to any person or property in order to obtain or retain stolen or prevent or overcome resistance to it being stolen or retained.

8.1.12 Rape

The action of having unlawful carnal knowledge of a woman or a girl without her consent, or with her consent if the consent is obtained by force or by means of threats or intimidation of any kind.

8.1.13 Theft

The process of stealing or fraudulently taking something from somebody without his/her consent.

8.1.14 Burglary

The act of breaking into or entering in any building, tent or vessels used as human dwelling, with intent to commit any offence.

8.1.15 Investigation

Is an inquiry into unfamiliar or questionable activities thoroughly and systematically. It is the process of trying to find out details or facts about something in order to discover who or what caused it or how it happened.

8.1.16 Under Investigation

Simply means the state of being investigated and the result of the matter investigated not yet completed.

8.1.17 Accused Person

Is the one charged with an offense the defendant in criminal case.

8.1.18 Closed cases

Are cases which are after police investigation, it is revealed that there is no evidence to prove it. The case is closed by the officer in charge of that police station.

8.1.19 Suspected person

Any person who is alleged to commit a crime

8.1.20 Arrested

The detainment or restraint of a person or a thing for the purposes of determining legal rights as regard a thing, or suspicion of criminal activity as regard a person.

8.1.21 Statement

Is an explanation given by either witness, Accused, Suspect, or complainant the explanation will either testify, or reject or support the fact in issue before either Police officer, Magistrate,

probation officer or any other person with an authority to determine the matter brought before him/her and whether the matter is civil or criminal.

8.1.22 Refugee

Is a person who runs out of his/her country for fear or persecution due to ethnic clashes, Political issues, Religious conflicts, and that fear endanger his/her life and cause to seek asylum in another country.

8.1.23 Offences committed by Refugees

Are those acts or omission forbidden by law for the refugee in camps.eg in Tanzania offences committed in camps at Kigoma, Rukwa ect.

8.2 The Judiciary of Tanzania

The primary function of the judiciary of Tanzania is to dispense and provide timely justice for all according to the law of Tanzania. The administration of justice can be achieved by having and deciding cases filed in our courts. This is carried out in the Court of Appeal, High Court of Tanzania, High court specialized courts. District and Court of Residence Magistrates, Primary Courts and Juvenile Courts all over the country.

In this regard the Judiciary of Tanzania among other things has responsibilities of collecting, evaluating, monitoring of different statistics in order to fulfill the goals/ indicators outlined in MKUKUTA II Cluster III.

8.2.1 Backlog

Is the number of cases which has been outstanding (pending) for more than a period of two years.

8.2.2 Disposition rate

This is the total number of cases decided divided by the number of filed cases of the same year.

8.2.3 Cases filed

Is the number of cases registered/appealed.

8.2.4 Cases disposed

This is the number of cases decided.

8.2.5 Decision

Includes a judgment finding, acquitted, conviction sentence or ruling etc.

8.2.6 District courts

Are courts established under section 4 of magistrate court Act, 1984.

8.2.7 Order

Includes a writ, warrant, summons or other process.

8.2.8 Primary court

Means court established under section 3 of Magistrate Court Act, 1984

8.2.9 Murder case

Case involving killing of a person intentionally or it is an act of a human being taking away the life of another human being unlawfully.

8.2.10 Infanticide Offences

Are cases which involve killing of foetus.

8.2.11 Homicide

Means killing of human being(s) by another human being. It is an act of a human being taking away the life of another human being. A homicide may be lawful (and therefore not punished) or unlawful.

8.2.12 Pending cases

Are cases outstanding/ which are not heard.

8.2.13 Case load

Means the number of cases pending during the prisons year/ month plus number of cases filed during this year/month.

8.2.14 Civil (proceedings) Case

Means proceedings brought for the purpose of enforcing or declaring a right or for recovery of money or property.

8.2.15 Commercial court

Is the part of the high court dealing with actions relating to mercantile documents, export, and cases arising from banking and insurance.

8.2.16 Conviction

The judgment of a jury or judge that a person is guilty. The state of being found or proved guilty.

8.2.17 Convict

A person is convicted of an offence if he/she pleads or is found guilty of the offence

8.2.18 Appeal

Is the process of taking a case to a court with power to act or the decision of the court that has made the decision complained of.

8.2.19 Jurisdiction

Is a power of a court or other body to hear and decide a case or make an order

8.2.20 Acquittal

The decision by a judge that a person accused of a crime is not guilty.

8.3 Prison

Is a building designated by law for the confinement of persons held while awaiting trial, and or persons sentenced after conviction.

8.3.1 Prisoner

Is any person, whether convicted or not, under detention in any prison. Individuals are prisoners if they are in any kind of penal institution such as prison, jail, or juvenile offenders facility, and their ability to leave the institution is restricted.

8.3.2 Adult prisoner

Means any prisoner of the apparent age of eighteen years or more.

8.3.3 Appellant prisoner

Means any convicted criminal prisoner who is detained in a prison as a result of a conviction which is the subject matter of an appeal which has been entered or lodged but the decisions in regard to which has not been given.

8.3.4 Civil prisoner

Means a debtor, a person ordered to be detained in custody under the provisions of the Mental Disease Act or a detainee under the Preventive Detention Act.

8.3.5 Criminal prisoner

Means any person dully committed to custody under a writ, warrant or order of any court or authority exercising criminal jurisdiction or by order of court-martial or a special Tribunal.

8.3.6 Convicted criminal prisoner

Means any criminal prisoner under sentence of a court or court martial or a special Tribunal and includes a person detained in prison under the Criminal Procedure Act.

8.3.7 Unconvicted prisoner

Means any person on remand or awaiting trial or, in cases of juveniles awaiting admission to an approved school, or any person detained for safe custody under the Immigration Act, or the Preventive Detention Act, or any written law repealing and replacing any of the said Acts and includes person detained for safe custody.

8.3.8 Young prisoner

Means a person between the apparent ages of sixteen and twenty- one years.

PART THREE: PRODUCTION AND ENVIRONMENT SECTOR

CHAPTER NINE

AGRICULTURAL STATISTICS



9.0 Agricultural Statistics

Is the aggregate of numerical information of different fields of agriculture and its economy. These include food and cash crops, livestock, and livestock products, poultry and poultry products, fisheries and forestry.

Agricultural statistics is classified under two major headings namely, Basic Agricultural Statistics and Current Agricultural Statistics.

9.1 Basic Agricultural Statistics

These are statistics dealing with enduring characteristics of agriculture such as agricultural holdings, their numbers, form of land tenure, land utilization, agricultural population, agricultural implements and machinery. These statistics are enduring characteristics in that they do not change so frequently. Basic Statistics are mainly collected through censuses at a periodicity of 5 – 10 years.

9.2 Current Agricultural Statistics

These statistics provide information on the more dynamic aspects of agriculture. These activities include areas under crops, production of crops, yields of crops, livestock and their products and prices. These statistics change more often than the Basic Agricultural Statistics. Current Statistics are collected more frequently (i.e., annually, semi-annually or quarterly).

9.2.1 Area Statistics

Concepts and definitions of area in agricultural statistics depend on the use to be made of that area. An insight into the basic structure of agriculture can be obtained if the total area of the country is broken down according to classification known as land utilization. The purpose of this classification is to show what part of the total land in a given country can be used for different types of agricultural production.

9.2.2 Land Use

This provides a classification of the holding according to the activity, which is directly related to the land, makes use of its resources or has an impact upon it.

The major categories of land utilization include land under temporary and permanent crops, land under pastures, wood and forests and all other land not elsewhere classified.

9.2.3 Arable land

This is land used in most years for growing temporary crops including the land lying fallow or has not been sown due to unforeseen circumstances. Arable land does not include land under permanent crops or land under protective cover. Arable land is not meant to indicate that the land is potentially cultivatable.

Arable land is subdivided into the following categories: land under temporary crops, land under temporary meadows and pasture, land under temporary market or kitchen gardens, land under fallow and all other arable land. These categories are further defined as:

a) Land under Temporary Crops

This is land in the open air, used for crops with less than one year growing cycle which must be newly sown or planted for further production after harvest. Some crops that remain in the field for more than one year may also be considered as temporary crops: asparagus, strawberries, pineapples, bananas and sugar cane, for example, may be grown as annual crops in some areas. Such crops should be classified either as temporary or permanent crops according to the custom in the country. Vegetables, flowers, bulbs and kitchen gardens should also be included in this category.

b) Land under Temporary Meadows and Pasture

This is land temporarily cultivated with herbaceous forage crops for mowing or pasture. A period of less than five years should be considered as temporary to avoid practical difficulties when differentiating between temporary and permanent meadows.

c) Land Temporarily Fallow

This is land put under prolonged rest before re-cultivation. Land remaining fallow for too long may acquire characteristics requiring it to be reclassified, as permanent meadows and pastures (if used for grazing) or woodland forest under fallow (if overgrown with trees that could be used as timber, firewood, etc.), or all other land (if it becomes wasteland). Land is not considered temporarily fallow unless it has been or is intended to be kept at rest for at least one agricultural year. Land temporarily fallow should be distinguished from land abandoned by shifting cultivation; the former is part of the holding whereas the latter is not. Fallow land temporarily used for grazing should be classified as fallow if the land is normally used for cultivating temporary crops.

d) All Other Arable Land

This includes all rotation land not put to the uses mentioned under 9.2.3.(a-c) during the reference year. For example, arable land temporarily damaged by floods and land prepared for cultivation but not sown due to unforeseen circumstances.

9.2.4 Land under Permanent Crops

This is land planted with long - term crops, which do not have to be replanted for several years. This includes land under trees and shrubs producing flowers (i.e., roses and jasmine) and nurseries (except those for forest trees which should be classified under woodland or forest). Permanent meadows and pastures are excluded from land under permanent crops. A nursery is a piece of land where young plants are cultivated for transplanting and/or sale.

9.2.5 Land under Permanent Meadows and Pasture

This includes land used permanently (for five years or more) to grow herbaceous forage crops, through cultivation or naturally (wild prairies or grazing land). Permanent meadows and pastures on which trees and shrubs are grown should be recorded under this heading only if the growing of forage crops is the most important use of the area.

9.2.6 Wood and Forest

This is woodland and tracts of timber (natural or planted), constituting part of the holding which has or will have value as wood, timber or other forest products or for protection. Forest tree nurseries should be included in this category.

9.2.7 Forest Products

All materials obtained from forest, include all wood and non-wood forest products.

9.2.8 Wood Products

All forest products that have fibrous substance making up the trunks and branches of trees and shrubs including timber, firewood and poles.

9.2.9 Non-Wood Forest Product

All goods for commercial, industrial or subsistence use derived from forests and their biomass, which can be sustainably extracted from forest ecosystem in quantities and ways that do not downgrade the plant communities' basic reproductive functions. Therefore, non-wood forest product – any natural resource from the forest except timber, include medicines, honey, fodder, food and fruits, vegetables, shade, craft materials, gums and resinous.

9.2.10 All Other Land

This is all other land on the holding, not elsewhere specified, whether or not potentially productive. It covers unused and undeveloped land potentially productive for agriculture but not yet developed (i.e., land that can be brought into production with little more effort) or land on holding not elsewhere specified (such as roads, parks, and land under buildings,).

9.2.11 Land Tenure

Land tenure refers to arrangements or rights under which the holder holds or uses land (**Land Act (No 4 & 5) of 1999**)

A holding may be operated under one or more tenure forms.

a) Land Owned

This refers to the land for which the holder possesses title of ownership and has the right to determine the nature and extent of its use. It excludes the area owned but rented to others.

b) Land Rented from Others

This refers to the land area rented or leased by the holder from other persons, usually for a limited time period. It includes land rented for an agreed sum of money or a share of produce or land rented in exchange for services and land operated under other rental arrangements such as area granted rent-free.

9.2.12 Soil Degradation

Refers to a process by which one or more of the potential ecological functions of the soil are harmed. Two categories of soil degradation processes are recognized, one that relates to displacement of soil material (i.e., soil erosion by water, wind, etc) and another that is associated with soil deterioration (i.e., loss of nutrients or organic matter)

9.2.13 Irrigation

Refers to the artificial application of water to the soil for the purpose of supplying the moisture essential for a plant growth. Irrigation water is supplied to supplement the water available from rainfall.

9.2.14 Drainage

Refers to the removal of excess water from land surface and/or the upper soil layer to make the non-productive wetland productive.

9.2.15 Planted Area

It is the total area where a crop has been planted.

9.2.16 Harvested Area

Refers to the total area in acres that the household got most of its production from. This is equal to the area planted minus the area that was not harvested due to pests, wild animals, drought and the like.

9.2.17 Field

It is a continuous piece of land cultivated as one by a holder, even if planted with different crops. An individual holding may consist of one or more such fields.

9.2.18 Plot

Refers to a portion of a field planted with one specific crop. For example, maize or sorghum, or a crop mixture, for example maize/beans mixture.

9.3 Crop Statistics

Concepts and definitions of crop in agriculture statistics depend on the planting pattern of the crops. The cropping patterns are divided into six categories as follows; mixed cropping, successive cropping, associated cropping, shifting cultivation, continuous planting and/or harvesting and pure stand.

9.3.1 Mixed Cropping

Refers to two or more permanent or temporary crops grown simultaneously on the same field/plot. The crops can either be randomly planted together or they can be planted in a particular pattern e.g., intercropping (one row of maize and one row of beans).

9.3.2 Successive Cropping

Refers to where the same crop or different crops are grown and harvested successively on the same land several times during the agricultural year.

9.3.3 Associated Cropping

Refers to a situation where both temporary and permanent crops are grown simultaneously in the same field, each crop is referred as an associated crop.

9.3.4 Shifting Cultivation

Refers to a land utilization method whereby a particular piece of land is cultivated for some years and then abandoned for a period sufficient for it to restore its fertility by natural vegetation growth before being re-cultivated. The distinguishing characteristic of shifting cultivation is that neither organic nor non-organic fertilizers are used to retain soil fertility.

9.3.5 Continuous Planting and/or Harvesting

Refers to an operation of planting/harvesting, which is repeated in intervals of time. *These repetitions could be once a year, two or three times a year.*

9.3.6 Pure Stand

Refers to a single crop cultivated in a field/plot at any one time.

9.4 Fertilizers and Pesticides

These are inputs, which are added to the soil or applied to the plants to increase nutrients to the soil and or control and eliminate crop diseases.

9.4.1 Fertilizers

These are inorganic or organic substances, which are applied to soil, irrigation water or hydroponics medium, to supply plants with the necessary nutrients. These include, inorganic fertilizers and organic substances.

a) Inorganic Fertilizers

Manufactured, usually through an industrial process.

b) Organic Substances

Materials of organic origin, either natural or processed, used as sources of plant nutrients.

(i) Manure

Refers to farmyard or animal manure which is a mixture of solid excreta of animals with litter used for their bedding.

(ii) Composite

Consists of organic materials of animal, plant or human origin partially decomposed through fermentation.

9.4.2 Pesticides

These are used for mitigation, controlling or eliminating pests troublesome to crops or livestock. These include insecticides, fungicides, fumigants, herbicides, rodenticides and various other materials mostly synthetic chemical produced in concentrated form but diluted for application with various substances such as water, talc, clays, and kerosene.



Stockpiles of obsolete pesticides

9.5 Livestock Statistics

This refers to statistics on animals and fowls kept in the holding (irrespective of ownership) and their products.

9.5.1 Livestock

Refers to all tamed animals kept in households or large-scale farms.



9.5.2 Indigenous Livestock

Refers to livestock commonly reared naturally in the villages, without special attention. Such livestock are neither fed by special feed nor special housing..

9.5.3 Improved Livestock

Refers to livestock, which are bred specifically for producing meat and milk. These may be cross - bred or pure bred.

9.5.4 Poultry

These are fowls commonly kept in households or Large Scale Farms (such as chicken, ducks, and guinea fowls.).

9.5.5 Improved Poultry

These are fowls commonly kept in households or Large Scale Farms (such as chicken, ducks, and guinea fowls.) specifically for producing meat and eggs. These may be cross - bred or pure bred.

9.5.6 Indigenous Poultry

Refers to fowls commonly kept in the households, without special attention. Such poultry are neither fed by special feed nor special housing.

9.5.7 Farming Household (Agriculture Household)

Refers to a household where one or more persons are holder(s). In peasant farming there will normally be a one-to -one correspondence between the farming household and the holding.

9.6 Other Agricultural Statistics

9.6.1 Agricultural Holding

Refers to an economic unit of agricultural production under single management. It consists of all livestock kept and all land used for agricultural production without regard to title.

9.6.2 Holder

Is a person who exercises management control over the agricultural holding operation and who takes major decisions regarding resource utilization or disbursement.

9.6.3 Agricultural Production

Refers to growing and harvesting of different types of crops. It also includes keeping of livestock and poultry.

9.6.4 Agricultural Year

This is a twelve months cycle in which production of annual crops takes place. For Tanzania Mainland, the agricultural year commences on the 1st of October and ends on the 30th of September of the following year.

9.6.5 Large Scale Farms

These are farms with at least 20 hectares of cultivated land or 50 herds of cattle or 100 goats/sheep/pigs or 1,000 chickens. In addition to this, they should fulfill all of the four listed conditions:

- Greater part of the produce should go to the market
- Operation of farm should be continuous
- There should be an application of machinery/implements on the farm

- Should have at least one permanent employee.

9.6.6 Small Scale Farms

These are farms, with at least 25 square metres of planted land and /or one herd of cattle, 5 goats/sheep/pigs, 50 chicken/ducks/guinea fowls/rabbits. These do not qualify to any of the criterion of Large Scale Farms given.

9.6.7 Operator

Is an individual or organization that exercises management control over the agricultural operation and who takes major decisions regarding resource utilization or funding/disbursements.

9.6.8 Long rainy (Masika) Season

Refers to long rain season covering months of February through May, same year.

9.6.9 Short rainy (Vuli) Season

Refers to short rain season covering months of October through January of following year.

9.6.10 Fish Farming

Refers to rearing/harvesting of fish. It is different from fishing in that, in fish farming, the fish have to be reared and fed. Fishing traps or captures naturally occurring in rivers and the sea should not be included.



9.6.11 Hunting and Gathering

Refers to use of non-farmed resources from uncultivated land for food and/or sale (i.e., killing wild animals, collecting mushrooms, berries, wild honey, and roots.)

9.6.12 Bee Keeping

Refers to rearing of bees in man-made hives, normally done for harvesting of honey and other bee products. Honey gathering (wild honey) is different as no rearing activities take place.

CHAPTER TEN

INDUSTRIAL STATISTICS



Industry covers the sectors of Mining and Quarrying, Manufacturing, the Generation and Distribution of Electricity, Gas and Water. All the activities classified as industry in the International Standard of Industrial Classification (ISIC) are engaged in the production of non-agricultural commodities.

Industrial Statistics involves collection, compilation, analysis, interpretation and dissemination of the Industrial Statistics.

10. Industrial Activity

It is an economic activity concerning: Mining and Quarrying, Manufacturing, Generation and Distribution of Electricity, Gas and Water.



Gold

10.1 Mining and Quarrying

It involves the extraction, dressing and beneficiating of minerals occurring naturally as solids such as coal and ores, liquids such as crude petroleum and gases such as natural gas. It includes underground and surface mines, quarries and wells and all supplementary activities for dressing and beneficiating ores and other crude materials such as crushing, screening, washing, cleaning, grading, milling, flotation, melting, pelting, topping and other preparations needed to render the materials marketable. However, it excludes;

- Works performed on contract or fee basis in the preparation of mineral properties and sites
- Prospecting for minerals (technical Services)
- Purification and distribution of water
- Bottling of natural spring water
- Crushing, grinding or otherwise tearing of certain earth, rocks and minerals not carried out in conjunction with mining and quarrying activities.

10.2 Manufacturing

It means mechanical or chemical transformation of organic or inorganic substances into new products, whether the work is performed by power driven machines or by hand, whether it is done in a factory or in the worker's home and whether the products are sold at wholesale or retail. Assembling of the component parts of manufactured products is considered manufacturing except in cases where the activity is appropriately classified in construction.

The assembly and installation also repairing and manufacturing of specialized parts of machinery and equipment in mining, manufacturing, commercial and other establishments, when carried out as a specialized activity, is classified in the same group of manufacturing as the manufacture of the items installed. When the activities are performed as a service incidental to manufacture on trade, they should be classified with the principal activity of the establishment.

Note that: Installation and repair of household goods (electrical goods, and watches.) are not manufacturing activities.

10.3 Generation and Distribution of Electrical Energy, Gas and Water

It means the generation, transmission and distribution of Electrical Energy, Gas and Water for sale to industrial, commercial and household users.

10.3.1 Water

Harmonized Indicators, relevant definitions and descriptions at the Ministry of Water as have been compiled in this section

MKUKUTA GOAL: To ensure access to clean, affordable and safe water, sanitation, decent shelter and a safe and sustainable environment.

10.3.2 Safe Water

Water drawn from improved sources which include piped water, protected well and springs that have been enclosed to prevent contamination.

According to National Water Policy of 1991, safe water should be available within a radius of 400 meters from each home.

10.3.3 Piped Water

Water provided within a housing unit by pipe from community-wide systems or from individual installation such as pressure tanks and pumps.

10.3.4 Housing Unit

Housing units with piped water means water supply inside the housing unit or outside the housing unit but within 100 meters from the door.

10.3.5 Access to safe water

Access to adequate amount of safe drinking water located within a convenient distance from a user's dwelling. It is important to note that the concepts of that access, adequate amount, safe and convenient distance vary from country to country.

According to MMMPI of 2006, access implies duration of 30 minutes to go, collect and return from fetching water.

10.3.6 Water Pollution

Presence in water of harmful and objectionable material obtained from sewers, industrial wastes and rain water run-off in sufficient concentration to make is unfit for use.

10.3.7 Rural Water Supply Services Coverage

Access to clean and safe water in the community by household within four hundred meters to a water source.

10.3.8 Percentage of people with access to improved water source

Percentage of number of people in the district or region with access to clean and safe water to the total district or region population. the population served with water within 400m to a water sources in which time taken to fetch some water should not exceed 30 minutes(go, wait, collect water and return home).

10.3.9 Percentage of functional water points(improved water source)

This is the ratio of the number of functional water points built in the rural and peri urban areas to the total number of water points in the rural and peri urban areas. It is expressed in to percentage.

10.3.10 Number of water points built.

The number of water points built in the rural areas to supply clean and safe water services to the group of people within 400m with time of 30 minutes (go, collect, return to be taken into consideration).

10.3.11 Percentage of people with access to improved sanitation facilities.

The ratio of the number of people with adequate sanitation facilities in the district (region) to the total population in the district(region).

10.3.12 Percentage of water points with actively functioning water and sanitation committees

It is defined as the number of water points built in rural areas to supply clean and safe water services with actively functioning water and sanitation committees to the total number water points built in rural areas.

10.3.13 Percentage of water and sanitation committees with women holding key positions.

Is the ratio of the number of water committees with women holding key positions in rural and peri urban areas to the total number of existing water committees in rural and peri urban areas.

10.3.14 Number of people sensitized and trained on sanitation

It is defined as the number of people sensitized and trained on water and sanitation in the rural and peri urban areas.

10.3.15 Water Samples

It is a portion of water taken at a source of water point for test water quality whether complies with national and international standards for human conception.

10.3.16 Total number of samples tested

It is defined as the number of products of sampling stations and number of weeks in a year(52), for chemical tests the number of weeks in a year(52), for chemical tests the number of samples tested will be the number of sampling station times two.

10.3.17 Percentage samples meet quality standards

It is the ration of samples taken and tested that meet current quality standards to total number of samples taken and tested. It is the measure of the quality of water delivered to customers. (Standards: 99.4% - 100%).

10.3.18 Water quality Test

Water sample are collected from the borehole and be taken and to Water Laboratory for Physical, bacteriological and Chemical analysis in order access its suitability for human consumption.

10.3.19 Total number of samples tested

It is defined as the number of products of sampling stations and number of weeks in a year(52), for chemical tests the number of samples tested will be the number of sampling station times two.

Note that, Chemical tests are conducted twice in a year while others are conducted once in every week .The recommended chemical tests to be tested are, Iron (Fe), Fluoride (F), Potassium permanganate (KMnO₄), Manganese (Mn), Nitrite Nitrogen, Nitrate Nitrogen, Hardness (CaCO₃), Calcium (Ca), Sodium (Na), Potassium (K) and Chlorine (Cl), Potassium others if applicable.

10.3.20 Hydrogeological survey

Activities carried out in order to determine potential sites for underground water exploitation.

10.3.21 Reconnaissance survey

The expert visit the site in order to identify areas for detailed survey, the geomorphological condition, hydrogeology of the area, accessibility of the drilling equipments to the site and historical background of the area in groundwater bases.

10.3.22 Detailed survey

The survey is done to identify areas for obtaining data which will be interpreted to determine the type of the rock, depth to drill and the possibility of underground water potential zones. The equipments for the survey are resistivity meter, Magnetometer/Electromagnetic, GPS and Geological compass.

10.3.23 Population coverage (%)

It is the ration of population served to total population.

10.3.24 Proportion of water produced to meet demand.

Is the ratio of water produced to water demand.

10.3.25 Revenue collection efficiency%

Is the ratio of the amount of revenue collected in the current financial year to the amount of revenue of water billed. It is recommended to be greater than $\wedge\%$

10.3.26 Unit cost of produced water

Is the Operation and maintenance (O&M) costs with depreciation (without investment costs and debt servicing) divided by Total water production.

10.3.27 % of unaccounted for water (UFW)

Is the ratio of water distributed less consumption to volume of water distributed. lost unknowingly as from the water produced. This indicator is the measure of leakage and other system losses. It is taken to include leakage and theft, but also un-metered provision of public water such as fire hydrants, etc. It should be less than 20%.

10.3.28 Area coverage(%)

Is the ratio of area with network to total service area.

10.3.29 % of water coverage with kiosks.

Population served with kiosks over total population. Times 100.

10.3.30 Sewerage coverage(%)

Is the number of domestic connections times average household size or best estimate over total population times 100.

10.3.31 Water service coverage (pop)(%)

Population served with domestic connections plus population served with kiosks over total population times 100.

10.3.32 Water coverage with domestic connections.(%)

Population served with kiosks/Total population times 100.

10.3.33 Billable water

Is water available for distribution less water used in the treatment process.

10.3.34 Billing efficiency (%)

Is the ratio of quantity of water billed to the quantity of billable water, it is recommended to be greater than (80%).

10.4 Statistical Unit

Statistical units are the entities for which information is sought and for which statistics are ultimately compiled. The statistical unit in the ISIC comprises the Establishment, Local Unit, Kind-of-Activity Units, Enterprise, Enterprise Group, and Homogeneous Unit of Production.

10.4.1 Establishment

It is an economic unit, which engages, under a single control, in one or predominantly one kind of economic activity at a single location i.e. an individual firm, factory, workshop or mine factory or workshop. Due to record keeping practices, it is not always possible to strictly follow the definition of an establishment as stated above. In some cases the

restrictions, especially on location, are relaxed. When restrictions are relaxed they give rise to local, kind of activity and enterprise units.

10.4.2 Local Unit

This comprises of all economic activities carried on at a single location under a single control.

10.4.3 Kind-of-Activity Unit (KAU)

A kind-of-activity unit is an enterprise, or a part of an enterprise, which engages in only one kind of (non-ancillary) productive activity or in which the principal productive activity accounts for most of the value added

10.4.4 Enterprise

It is a multi establishment business entity comprised of all economic activities carried out under a single control. In this case both restrictions on location and type of activity are relaxed.

10.4.5 The Enterprise Group

An enterprise group consists of all the enterprises under the control of the same owner. When a group of owners has control of more than one enterprise, the enterprises may act in a concerted way and the transactions between them may not be driven by the same concerns as “arm’s length” transactions. The Framework for Direct Investment Relationships can be used to determine which enterprises are under control or influence of the same owner. A multinational enterprise group consists of all the enterprises located in different economies and under the control or influence of the same owner wherever located

10.4.6 The homogeneous unit of production

The distinguishing feature of a unit of homogeneous production is a unique activity which is identified by its inputs, a particular process of production and its outputs. The products which constitute the inputs and outputs are themselves distinguished not only by their physical characteristics and the extent to which they are processed but also by the technique of production used: they can be identified by reference to a classification of products

10.5 Principal Activity/Main activity

Refers to main economic activity of an economic entity that contributes most to the value added of the entity, or activity of which its value added exceeds that of any other activity of the entity.

10.6 Auxiliary Activity

Refers to minor or less important kind of activity in terms of value added contribution as compared to the principal activity.

10.7 Persons Engaged

These are individuals who work in establishment. It includes working proprietors and partners, unpaid workers, managerial and professional staffs, operatives and other employees.

10.7.1 Operatives

These are paid up workers who are directly engaged in the production or related activities of the establishment, including any clerical or working supervisory personnel whose function is to record or expedite any step in the production process. Examples are, persons engaged in the manufacturing, processing, or assembling, shop messengers, shop-cleaning personnel and foremen. Also workers of similar type engaged ancillary to the main activity of the establishment including persons engaged in truck - driving, repair and maintenance.

10.7.2 Other Employees

This includes all paid up workers of the establishment other than operatives. They include all personnel in production management above the working foremen. These are administrative, technical and clerical personnel as well as salaried managers/directors, laboratory and research workers, clerks, typists, watchmen, bookkeepers, administrative supervisors, salesmen and the like.

10.7.3 Working Proprietors

These are owners of the establishment who are actively engaged in the work of the establishment. It excludes silent or inactive partners as well as members of a proprietor's family. The owners are considered to be active only if they work one third or more of the reference period. This category is not applicable to incorporated or similar enterprises where ownership is represented by equity shares. All working cooperative members are regarded as employees.

10.7.4 Unpaid Workers

These are all persons working in the establishment without regular pay that is, without an agreed amount to be paid for work done. They include members of religious institutions, prisoners, servicemen and militia members and persons living in the household of any of the proprietors i.e. owners of the enterprise and working in the establishment without regular pay. All these persons however should have worked for the establishment for at least one third of the working time normal to the establishment. This category is not applicable to any incorporated or similar enterprise where ownership is represented by equity shares.

10.7.5 Total Persons Engaged

This is the total labour force comprising of operatives, other employees, working proprietors and unpaid workers.

10.8 Labour Costs

Refers to total sum of wages, salaries, benefits in kind and contributions to social security schemes by the establishment.

10.8.1 Gross Wages

It includes all payments, in cash to operatives in connection with work done. It includes all cash payments made for bonuses, commissions, overtime, cost-of-living allowances and payments made during periods of vacation, sick leave, maternity or casual leave. It includes taxes and social security contributions and the like paid by the employee but deducted by the employer. Lay-off payments and compensation for unemployment are included if made by the employer. Social insurance and pension contributions and the like payable by the employer are excluded but treated as a separate part of compensation to employees.

10.8.2 Gross Salaries

These are payments similar to those described under wages but relating to “other employees” (see 9.9.1).

10.8.3 Benefits in Kind

These are payments made, in kind, to employees. It is the net cost to the employer of those goods and services (which are clearly and primarily of benefit to the employees as consumers) furnished to employees free of charge or at markedly reduced cost. They include food, beverages, tobacco, housing, clothing (not uniforms) and medical expenses. Excluded are costs relating to recreational facilities.

10.8.4 Social Security Schemes

These are the employers’ contribution to the social security schemes and pension funds e.g. the National Social Security Fund (NSSF), Parastatal Pension Fund (PPF) and other funds of this nature organized by the establishment concerned.

10.9 Output

This is the final product produced by the alternative combinations of input.

10.9.1 Principal Products

These are goods made by the establishment during the reference year for which the quantities are given in standard units e.g. kilogrammes, square metres, litres etc. The goods are valued at ex-factory prices i.e. sales price less indirect taxes. Goods made for the establishment by other establishments from materials supplied by the establishment are also considered to be part of the establishment’s products.

10.9.2 Receipts for Industrial Services Rendered

This is the amount charged for work done for others or for services of an industrial nature rendered to others: For example, contract or commission work done for other establishments on their material or repair and maintenance work on machinery and equipment. The value reported should be the total cost charged for the work or service performed.

10.9.3 Receipts for Non-Industrial Services

This is the amount charged for services of non-industrial nature rendered to others. These are services such as management, research and development, data processing, legal fees, accountancy and the like.

10.9.4 Goods Shipped as Received

This is the sales value, ex-establishment, of all goods shipped during the year in the same condition as received. These goods are not subjected to any further manufacturing process and are normally known as trade goods.

10.9.5 Fixed Assets (or Capital Goods) Produced for Own account

This is the value of new fixed assets (buildings, machinery etc), addition and improvements to existing fixed assets made by the establishment's own labour and materials for its own use. It includes value of installations, extensions and major repairs.

10.9.6 Gross Output

This is equal to the sum of the following:

- Value of Principal Products (see 10.9.1)
- Receipts for Industrial Services Rendered (see 10.9.2)
- Receipts for Non-industrial Services (see 10.9.3)
- Sales Value of Goods Shipped as Received (see 10.9.4)
- Value of Fixed Assets Produced for Own-account (see 10.9.5)
- Value of Increase on work in progress

10.10 Inputs

These are factors of production used to produce a given level of output. Inputs can either be labour, capital, raw materials and Land.

10.10.1 Increase in Work-in-progress

This is the value of work-in-progress at the end of the year less the corresponding value at the beginning of the year. It refers to the value of all materials, which have partially been processed by the establishment, but which are not usually sold, shipped, or turned over to other establishments without further processing.

10.10.2 Raw Materials and Components

This is the value of raw materials, components and parts that are physically incorporated in the products of the establishment. Also, included are all auxiliary materials such as lubricants, water, packaging materials, small tools, parts, materials for repair and maintenance provided that working life is less than one year. and office supplies. Only materials consumed should be considered here. Excluded are materials used in own account construction of fixed assets as well as materials supplied by other establishments under contract manufacture.

10.10.3 Material for Own-account Construction of Fixed Assets

This is the value of materials used in own account construction of fixed assets e.g. buildings, machinery, installations, extensions, improvements and major repairs.

10.10.4 Value of Fuel and Lubricants

This is the value of all fuels and lubricants consumed by the establishment in the production process (excluding gasoline and other fuels for vehicles) except those reported as materials under 10.10.2.

10.10.5 Cost of Electricity Purchased

This is the total cost of electricity purchased by the establishment during the reference year.

10.10.6 Transport Costs

They include costs for own and hired transport.

10.10.7 Cost of Industrial Services Received

These are the payments made by the establishment for contract and commission work done by others during the reference year on materials supplied and controlled by the establishment. It also covers the total cost to the establishment for repair and maintenance services on buildings and other fixed assets of the establishment provided by others during the reference year.

10.10.8 Cost of Non-industrial Services Received

This is the cost of all non-industrial services rendered by other establishments to the establishment. They involve activities pertaining to economic activities other than mining, manufacturing and production and distribution of electricity, gas and water.

10.10.9 Production Costs

Includes all the costs that are involved in acquiring or making a product

10.11 Value Added

It is the measure of the additional value created by a process of Production in the economy for the reference period.

10.11.1 Gross Value Added

This represents the difference between Gross Output and Production Costs

10.11.2 Net Value Added

It is the difference between Gross Value Added and Depreciation.

10.12 Value of Stocks or Inventory

It is the total opening and total closing Balance Values of the following items:

- Materials, Fuels and Stores
- Work-in-Progress
- Finished Goods Produced.

10.12.1 Value of Materials, Fuel and Stores

It is the value of materials, fuel and stores in stock at the beginning and end of the reference year.

10.12.2 Work-in-Progress

Refers to semi-finished products. It includes goods that have partially been processed but not ready for shipment.. Work-in-progress on own-account construction of fixed assets should be excluded and treated as part of the fixed capital formation.

10.12.3 Finished Goods Produced

Refers to all goods made by an establishment which are ready for sale or shipment as of the reference dates. Included, are finished goods processed and held by other establishments from raw materials supplied and controlled by the respondent establishment. *Excluded are finished goods held by the respondent establishment but made from materials owned and supplied by other establishments.*

10.13 Fixed Assets

Refers to assets used repeatedly, or continuously, in processes of production for more than one year. *They consist of both tangible fixed assets (dwellings, other buildings and structures, machinery and equipment cultivated assets) and intangible fixed assets (mineral exploration, computer software and other intangible fixed assets). Inventories and valuables that are not used repeatedly in production are not counted as fixed assets. Neither do natural assets that are not produced.*

10.13.1 Land

Land refers to all land used for buildings, shed, etc. within the premises where the establishment's economic activity is carried out.

10.13.2 Land Improvements

Includes fencing, drainage system, sewage and water system, roads, rail siding, communication lines and the like

10.13.3 Buildings and other construction works

This category includes factories, offices and warehouses, elevators and other equipment, which form part of the buildings as well as any land improvements. The value of land before improvement should not to be included here.

10.13.4 Machinery and other equipment

This item includes all industrial machinery and other equipment such as construction machinery, cranes, fork-lift equipment and the like; power generating machinery; computers and other data-processing equipment; metalworking machinery; mining machinery; office machinery, equipment and furniture; and similar machinery and equipment and major renovations and alterations to these.

10.13.5 Transport Equipment

Includes trucks, cars, trailers, aircrafts, animal carts and wagons. but only those connected with the industrial activity

10.13.6 Disposals

Disposal means sale, retirement, exchange or transfers of fixed assets.. Disposals to others should be valued ex-establishment excluding discounts and direct taxes but including subsidies received.

10.13.7 Depreciation

It represents the estimated allowance for wear and tear of fixed assets during the reference year. It refers to annual and not cumulative depreciation.

10.14 Sales and Related Items

10.14.1 Sales of Own Goods

It represents the total sales in the reference year from own production whether or not the goods sold were produced in the reference year. The value shown should be the actual amount charged to customers on delivery. Excluded are indirect taxes, rebates, discounts and duty drawbacks.

10.14.2 Indirect Taxes

These are taxes paid when buying goods e.g. Value Added Tax (VAT), excise duty, stamp duty and the like.

10.14.3 Discount

Reduction to a basic price of goods or services. Are the amount of money which may be taken off the full price.

10.14.4 Rebates

The amount of money by which a debt, tax may be reduced. For instance there is often a rebate if the account is settled before a given date.

10.14.5 Duty Drawback

The amount paid back to the establishment as duty surcharge. Is the refund of custom duties and fees paid on imported merchandise that is either re-exported or destroyed under custom supervision.

10.15 Other Income

10.15.1 Profits from Sale of Fixed Assets

This is the difference between the sale value and the book value of the fixed assets sold.

10.15.2 Royalties in Industrial Sector

The amount paid to the establishment by others on the use of the establishment's patents, trademark or copyright

10.15.3 Dividends

The amount received by types of shares held by the establishment.

10.15.4. Interest

The amount received by the establishment on loan given to others.

10.15.5 Subsidies

Amount given to the establishment (as aid or support) by the government proportioned on production, sales or exports.

10.16 Total Income

It is the sum of all incomes received by the establishment. It includes sales of own goods, sales of trade goods, receipts on industrial and other services rendered to others and other receipts received by the establishment.

10.17 Others

10.17.1 Installed Capacity of Production

It is the ability or efficiency of a machine to produce. It represents the maximum production, which could be achieved (as specified by manufacturers) if all combinations of production such as labour, availability of raw materials, power, maintenance and repair, remain normal.

10.17.2 Producer Price Index (PPI) of the Manufacturing Sector

It is the measure of the average change in the selling prices (ex-factory) received by manufacturing establishments. In Tanzania, PPI is being measured by surveying establishments each engaging an average of 50 or more persons

CHAPTER ELEVEN

TRADE, TRANSPORT, TOURISM AND INTERNATIONAL MIGRATION STATISTICS



11.0 Trade Statistics

Trade Statistics are compiled following International Standards and United Nations recommendations, regard to methodology, concepts and definitions and standard classifications for compilation of trade statistics.

The main sources of external trade data are Customs Administration. Customs Data are captured electronically using Automated System for Customs Data Management called ASYCUDA. Customs Data is then processed using EUROTRACE system to produce necessary statistical tables for the country's foreign trade.

Distributive trade is an important economic activity providing employment to a significant part of the population and contributing greatly to the GDP.

Wholesale is the resale (sale without transformation) of new and used goods to retailers, to industrial, commercial, institutional or professional users, or to other wholesalers, or involves acting as an agent or broker in buying merchandise for, or selling merchandise to, such persons or companies.

Retailing is the sale (sale without transformation) of new and used goods mainly to the general public for personal or household consumption or utilization, by shops, department stores, stalls, mail - order houses, hawkers and peddlers, consumer cooperatives, auction houses etc.

11.1 Foreign Trade Statistics

Refers to the flow of goods between the statistical territory of Tanzania and the rest of the world, with the exception of goods in transit. Statistical territory refers to customs territory, the area in which the customs law of a country applies full control over entry and exit of goods.

11.1.1 Imports

Refers to an inflow of goods into a country.

a) Direct Imports

Refers to goods entered at the time of importation for consumption or for warehousing in Tanzania.

b) Imports for Home Use

Refers to imports declared directly for national use from abroad and from national free zones, free ports and warehouses.

11.1.2 Exports

Refers to outflows of goods from a country.

a) Domestic Exports

Refers to exportation of goods produced or grown in Tanzania, or goods having undergone substantial transformation in the exporting state.

b) Re-exports

Refers to goods exported in the same condition as imported or after undergoing minor operations, which leave them not substantially changed.

11.1.3 Gross Weight

It refers to actual weight of goods including packaging.

11.1.4 Net Weight

Refers to actual weight of goods excluding packaging.

11.1.5 Packaging

Refers to any cases, boxes, containers, wrappings and covering materials including related accessories and supports.

11.1.6 Standard Measurement Unit

This is the quantity unit of measurement. For example, the net weight in kilograms.

11.1.7 Supplementary Unit

It is a unit of measurement of quantity other than Kilogram.

11.1.8 Country of Consignment

Refers to the country from which the goods were initially dispatched to the importing state.

11.1.9 Country of Origin

Refers to the country from which goods originate. This is the country from where goods were grown, produced or manufactured according to the laid down rules of origin.

11.1.10 Country of Destination

It is the final known country to which exported goods were dispatched.

11.1.11 Country of Last Consignment

It is the last country where the goods were loaded.

11.1.12 Country of First Destination

It is the country where the mode of transport, from the border of another country changes.

11.1.13 Value of Imports

It refers to the value of imported goods as determined by Cost, Insurance and Freight charges (CIF). It should be noted that C.I.F is a term of the contract of sale of goods being shipped where the seller pays the cost of the insurance and transport of the goods to the destination

11.1.14 Statistical Value of Exports

Refers to the value of exported goods as determined by Free On Board valuation system (FOB). FOB type value includes the transaction value of the goods and the value of services performed to deliver goods to the boarder of exporting country.

11.1.15 Cost

Refers to the authenticated invoice value.

11.1.16 Freight

Refers to charges for transportation of goods from the country of consignment to the country of destination.

11.1.17 Insurance

Refers to charges for safeguarding against losses on goods being transported from the country of consignment to the country of destination.

11.2 Transport Statistics

Transport is a critical input to the development of the economy. All national development programs hinge around efficient and effective transport infrastructure and services. The concepts and definitions presented under this section relates to all modes of transport and communications. It includes transport on road, air, marine and railway as well as posts and telecommunication services.

11.2.1 Road Transport Statistics

Road transport include all transport of Goods and Passengers by road In Tanzania road is classified (according to Roads Acts 2007) as Trunk roads, Regional roads (which are under management of TANROADS), District roads, Urban roads and feeder or collector roads which are managed by local government authorities under PMORALG. The road is either paved or unpaved.



11.2.1.1 Motorcycle

All 2-wheel and 3-wheel vehicles with a kerb weight of maximum 400 kgs.

11.2.1.2 Passenger Car

Three wheelers over 400 kgs kerb weight and all vehicles with 4- wheels or more and maximum number of 10 seats including the driver's.

11.2.1.3 Light or Semi-Commercial Vehicles

All vehicles used for goods transport mainly Gross weight of maximum 3,500 kgs e.g. Pick-ups.

11.2.1.4 Commercial Vehicle Trucks

All vehicles used commercially for goods transport having gross weight of over 3,500 kgs e.g. lorries.

11.2.1.5 Special Vehicle

This category includes passenger car transporter, Fire fighting vehicles, Ambulance, Breakdown vehicle, Cesspool emptier, and Refuse collector, Tankers, Bulk Transporter, Log Transporter, Concrete transporter/mixer, Mobile workshop, Mobile Library, Mobile shop, Mobile Bank and Motor caravan.

11.2.1.6 Other Vehicles

Include, Forklift, Mobile crane, container crane, Bulldozer, grader, loader, excavator, steamroller, asphalt layer etc.

11.2.1.7 Commercial Motor Vehicles (CMV)

All vehicles used for business purposes (i.e. Transportation of Passengers from one point to another.)

11.2.2 Road Network Length.

Road Network Length is the measure of a distance in kilometers (km) of roads as stipulated in the Road Act 2007 and any subsequent amendment. Paved roads are the length of all roads that are surfaced with crushed stone (macadam) and hydrocarbon binder or bituminized agent with concrete or cobblestones. Unpaved roads are all roads surfaced with gravel or earth material.

Condition of Paved Road Network

Good Condition

Road in a good conditions include paved roads, largely free of defects requiring only routine maintenance and perhaps surface treatment.

Fair Condition

Roads in fair condition include roads with minor defects and weakened structural resistance, they require resurfacing of the pavement but without the need to demolish the existing pavement.

Poor Condition

Roads in poor condition include roads with major defects and weakened structural resistance, they require rehabilitation of the pavement which involves demolishing the existing pavement.

Condition of Unpaved Road Network

Good Condition

Road in a good conditions includes unpaved roads, largely free of defects requiring only routine maintenance and localized repair.

Fair Condition

Roads in fair condition include roads with minor defects which they require grading and additional new gravel plus drainage repair in some places.

Poor Condition

Roads in poor condition include roads with major defects like pot holes, loss of camber and gravel materials, they require rehabilitation which involves reshaping of the road, and additional new gravel and drainage repair in some places.

11.3 Aviation Statistics / Air transport

Aviation industry is a worldwide monitored transport system which involves movement by an aircraft, existing of aerodromes and ground handling.



11.3.1 Aerodrome

Refers to a defined area on land or on water (including any buildings, Installation and equipment) intended to be used either wholly or in part for the arrival, departure and movement of aircraft.

11.3.2 Domestic Traffic

Refers to traffic on flights whose origin and destination terminal are both in the state in which the aircraft is registered.

11.3.3 International Traffic

It is defined as traffic on flights of national or foreign aircraft whose origin or destination is located in the territory of a state other than the United Republic of Tanzania.

11.3.4 Aircraft Movements

Refers to the total sum of every landing and every take-off.

11.3.5 Private Movements

Refers to landing and take-off by aircraft operating for private purpose and solely for the benefit of the owner.

11.3.6 Charter Movements

Refer to landing and take-off by aircraft operating for hire or reward but not according to published schedule.

11.3.7 Commercial Movements

Refers to landing and take-off of aircraft engaged in commercial flights. They include both scheduled and non-scheduled (charter, hire and not according to published timetable) commercial flights.

11.3.8 Non-commercial Movements

Refers to landing and take-off by aircraft operating solely for the benefit of the owner or for the purpose of positioning. This includes flights made by the Government and military aircraft and unscheduled return flights by aircraft to their point of departure for safety reasons.

11.3.9 Scheduled Flights

Refers to flights performed for remuneration according to published timetables and which are available to the public at fixed rates.

11.3.10 Non-Scheduled Flights

Refers to flight performed on an irregular basis.

11.3.11 Passengers Embarked and Disembarked

Refers to passengers who are commencing or completing their journeys but excluding transit passengers.

11.3.12 Transit Passengers

Refers to passengers who are continuing their journey in the same or different aircraft without checking out. Transit passengers are counted once.

11.3.13 Freight and Mail

Refers to freight and mail loaded or off-loaded by all aircraft which served an airport excluding aircraft fuel, stores and cargo remaining in the aircraft. Commercial freight excludes diplomatic freight/mail, post office, mail and excess luggage.

11.3.14 Revenue Passengers

Refers to passengers paying full fares.

11.3.15 Passenger Load Factor

Is equal to $(\text{Passenger-km performed})/(\text{Passenger-km available}) \times 100$

11.3.16 Weight Load Factor

Is equal to $(\text{Tone-km performed})/(\text{Tone-km available}) \times 100$

11.3.17 Aircraft Movement

Is an arrival or departures of an aircraft. Normally one arrival and one departure shall be counted as two movements

11.4 Shipping Statistics



11.4.1 International Sea-borne Traffic

A person or consignment of goods is said to have moved in International Sea borne traffic if after having been loaded in a port of foreign country, it made a voyage to a port in another country and was unloaded there.

11.4.2 Container Traffic

Number of TEU (Twenty-foot Equivalent container Unit) passing through the port in specified period of time.

11.4.3 Average Import full Container Dwell time

The average time between arrival and departure of the full import container in the terminal. it is measured in days.

11.4.4 Berth Occupancy (%)

Is the proportion of time berth terminal is occupied by ship(s), indicating the level of demand for port services over a particular time interval (hours, days, weeks, months, years). It is measured in percentage.

11.4.5 Modal Split

Proportion of container delivery by mode (Rail or Road) in specific period (days, weeks, months, year)

11.4.6 Ship turn around time

The ship turn-round time is the duration of the vessel's stay in port and is calculated from the time of arrival at outer anchorage to the time of departure.

11.4.7 Piracy

Piracy is attacks by individuals or groups who robs or plunders at sea without a commission from a recognized sovereign Nation. They usually targets other ships but have also attacks targets on shore.

11.4.8 Gross Registered Tonnage (GRT)

Refers to space measurements, one cubic metre being regarded as equal to one tone. It is the capacity of the entire space within the frames and ceiling of the hull together with those closed-in spaces above deck available for cargo stores, passenger or crew.

11.4.9 Net Registered Tonnage (NRT)

Refers to what remains of the 'gross registered tonnage' after deducting the spaces occupied by propelling machinery, fuel and other stores, crew quarters, master cabin and spaces. It represents the spaces available for cargo and passengers. Both Gross and Net registered tonnage are measurement of cubic capacity and not weight.

11.4.10 Dead Weight Tonnage (DWT)

This measures in weight (tones) the amount of cargo that a ship can carry when a vessel is down to its local line. The weight of cargo is gross weight because it includes the packing of goods. A vessel is said to have entered a port with cargo if it touches at the port and unload goods. A vessel is said to have cleared a port if it leaves the port after having loaded goods.

11.4.11 International Sea-borne Traffic

A person or consignment of goods is said to have moved in International Sea borne traffic if after having been loaded in a port of foreign country, it made a voyage to a port in Tanzania and was unloaded there.

11.4.12 Coastwise Traffic

Refers to traffic by sea between the ports of Tanzania. Every arrival or departure with cargo in coastwise traffic is counted no matter how many ports are touched during a voyage. If a ship making international voyage stops to unload or load goods in commercial coastwise traffic the resulting arrivals or departure is counted as such.

11.5 Railway Statistics



11.5.1 Train

Includes any propelled unit, with or without vehicles attached, such as locomotive, ballast tamping machine, motor trolley or material trolley. For the purpose of these statistics, we shall take it to mean a locomotive with the accompanying wagons for goods trains; or passenger coaches and the accompanying brake/luggage van and restaurant car; for passenger trains.

11.5.2 Working Train

A train which is required to stop in a block section for such purposes as shunting at a siding loading or unloading or track maintenance.

11.5.3 Passenger Train

A train primarily intended for conveyance of passengers.

11.5.4 Goods Train

Any train other than a departmental train on which less than four units of loaded passenger stock are conveyed. Goods include luggage animals (alive or dead) and all other moveable property of any description.

11.5.5 Block Train

A goods train carrying freight traffic from origin to destination without loading or unloading while on transit.

11.5.6 Mixed Train

Is a train primarily intended for the carriage of goods, but conveying four or more units of loaded passenger stock.

11.5.7 Train Kilometers

Distance in kilometers covered by a locomotive from one point to another.

11.5.8 Tonne kilometers

Total number of kilometers a certain commodity or consignment has covered from the originating station to the terminal station i.e. tones * distance in kilometers.

11.5.9 Passenger kilometers

Sometimes termed as passenger journeys. It is total kilometers train passengers cover from the point of boarding to destination i.e. No. of passengers * kilometers covered.

11.5.10 Wagon Kilometers

It is distance in kilometers traveled by a certain wagon in a given period.

11.5.11 Gross Tonnes

Total weight in tones of the locomotive plus the consignment carried.

11.5.12 Net Tonnes

Refers to weight in tones of the consignment alone.

11.5.13 Locomotive Reliability

Is the distance in kilometers a locomotive travels before it fails i.e. kilometers per failure.

11.5.14 Locomotive Utilization

It is the distance a locomotive covers per day it is in use i.e. kilometers per day in use.

11.5.15 Loaded Ratio (%)

It is the ratio of loaded wagon kilometers to total wagon kilometers covered in a certain period i.e. loaded wagon kilometers/total wagon kilometers * 100.

11.5.16 Load Coefficient (%)

It is the ratio between net tonne-kilometers to gross tonne-kilometers covered in a given time i.e. net tonne-kilometers/gross tonnekilometers * 100

11.5.17 Railway Network Density

Is the ratio of the total length of the railway network, excluding sidings, to total area. It is expressed in km/1000 sq. kms.

11.6 Tourism Statistics



In the system of the National Accounts 110103 (SNA 103), tourism is not one economic activity but appears, and is counted for, in different economic activities, namely, agriculture (in the hunting sub-division); trade, hotels and restaurants; transport and communication; financial and business services (in the business services sub-division); and public administration and other services (education, health and other services). Consequently it has been difficult to quantify tourism as a single economic activity. Tourism satellite Account (TSA) is a new statistical framework proposed by the World Tourism Organization (WTO) aimed at enhancing analysis of the impact of the tourism sector in national economies.

Tourism Economy includes Tourism Sector (indirect effects) and Tourism Industry (direct effects) as follows:

Tourism Sector: Consists of a set of institutional units whose principal economic activity is a tourism characteristic activity, e.g. transport, retail, laundry, security, etc. The sum of the value added generated by all industries in response to tourism consumption.

Tourism Industry: All establishments whose principal productive activity is a tourism characteristic activity, i.e. the sum of all tourism characteristic activities, e.g. accommodation establishments, tour operators, travel agencies. A group of establishments whose principal productive activity is a tourism characteristic activity.

The UNWTO defines the TSA as an output that consists of 10 tables as follows:

- Total Internal Tourism expenditure which is a summation of
 - Domestic expenditure,
 - Domestic proportion of outbound expenditure,
 - Inbound expenditure, plus

- Value added Demand and Supply and Number of Jobs which is a product of Total Internal Tourism expenditure (consumer prices) less Tourism production (producer prices), plus
- Summation of Capital Investment from Tourism and Other value added; which is equal to
- Tourism Contribution to the Economy

System of Tourism Statistics (STS) STS is the system that provides reliable, consistent and appropriate statistical information on the socio-economic structure and the developments of tourism, integrated within all the economic and social statistics related to other fields, at different territorial levels.

Components of STS

- **Basic Statistics**
 - Tourism Consumption
 - Tourism Supply
 - Production Factors
- **Classification relating to tourism statistics**
 - Tourism Specific Products
 - SIC of tourism activities
- **Tourism Satellite Account**
 - TSA Concepts
 - TSA Aggregates
 - Classifications for TSA
 - TSA tables of results and extensions
- **Tourism Balance of payments**

Tourism Consumption consists number of key concepts as follows:

	Tourism Consumption	
Tourism	Visitor	Traveler
Domestic tourism	Tourist	Usual environment
Inbound tourism	Inbound tourist	Country of residence
Internal tourism	Domestic tourist	Duration of the visit
Outbound tourism	Same day visitor	Purpose of visit
		Tourism accommodation
	Describe these concepts to describe items in the first column.	

To be outside the “usual environment”

The person should travel more than 40 kilometres from their place of residence (one way) AND

The place should NOT be visited more than once a week. This includes:

- Place of work
- Place of study

Leisure and recreational trips are included irrespective of the frequency.

Note: A minimum distance of 40km’s was chosen as opposed to 60km or more to accommodate for the coastal areas where trips are taken closer to the place of residence.

The definition of usual environment is therefore based on the following criteria:

Minimum distance travelled to consider a person a visitor;

Minimum duration of absence from usual place of residence;

Minimum change between localities or administrative territories.

11.6.1 Tourism

Refers to the activities of persons travelling to and staying away from places of their usual residence for not more than one year for leisure, business and other purposes not related to the exercise of an activity remunerated from within the place visited.

a) Domestic Tourism

Refers to activities of residents of a given country or other area travelling to and staying in places inside that country or other area but outside their usual environment for not more than one year for leisure, business and other purpose.

■ **Inbound tourism**

Refers to activities of non-resident visitors in a given area that is outside their usual environment for not more than one consecutive year for leisure, business and other purpose.

■ **Outbound Tourism**

Refers to residents travelling to another country

b) International Tourism

Refers to inbound and outbound tourism

c) Tourism Industry

Refers to all recipients of direct spending incurred by tourists. This includes pre-trip expenditure, during travel, and bookings, and all spending at the destination.

11.6.2 Visitor

Refers to a person who travels to a country other than that in which s(he) has his/her usual residence and that is outside his/her usual residence for a period not exceeding one year, and whose main purpose of visit is other than the exercise of an activity remunerated from within the country visited.

11.6.3 Tourist

Refers to a person who travels to a country other than that in which he/she has his/her usual residence for at least one night and at most one year.

11.6.4 International Visitor

Refers to any person who travels to a country other than his/her usual residence, but outside his/her usual environment for a period not exceeding twelve months and whose main purpose of visit is other than the exercise of an activity remunerated from within the country visited. This definition covers two classes of visitors; i.e. 'International tourist' and 'International same-day visitor'.

11.6.5 International Tourist

Refers to an international visitor who travels to a country and stays for at least one night in collective or private accommodation and whose main purpose of visit may be classified under the following groups:

a) Leisure, Recreation and Holidays

Refers to sight-seeing, shopping, attending sporting and cultural activities, non-professional active sports, trekking and mountaineering, use of beaches, cruises, gambling, rest and recreation for armed forces, summer camp, and honeymooning.

b) Visiting Friends and Relatives

Refers to visits to relatives or friends, home leave, attending funerals, care of invalids.

c) Business and Professional

Refers to attending meetings, conferences or congresses, trade fair and exhibition; giving lectures or concerts; government mission, diplomatic, military or international organization personnel; paid study, education and research; incentive travel; installing equipment, inspection, purchases, sales for foreign enterprises and other business.

d) Health Treatment

Refers to spas, fitness, thalassotherapy, health resorts and other treatments and cures.

e) Religion/Pilgrimages

Refers to those attending religious events.

f) Other Purposes

Refers to aircraft and ship crews on public carriers, transit and other or unknown activities.

11.6.6 International Same-day Visitor

Refers to an international visitor who visits another country for less than 24 hours and does not spend the night in collective or private accommodation in the place visited. This definition includes: -

a) Cruise Passengers

Refers to persons who arrive in a country on a cruise ship and return to the ship each night to sleep on board even though the ship remains in port for several days. Also

included in this group are by extension, owners or passengers of yachts and passengers on a group tour accommodated in a train or truck.

b) Crew Members

Refers to persons who do not spend night in the country of destination; this group also includes crews of warship on a courtesy visit to a port in the country of destination, and who spend the night on board ship and not at the destination.

11.6.7 Domestic Visitor

Refers to any person residing in a country, who travels to a place within the country and outside his/her usual environment for a period not exceeding twelve months and whose main purpose of visit is other than the exercise of an activity remunerated from within the place visited. This definition covers two classes of visitors; i.e. 'Domestic tourist' and 'Domestic same-day visitor'.

11.6.8 Domestic Tourist

Refers to an internal visitor whose visit is for at least one night and whose main purpose of visit may be classified under the following six groups:

a) Leisure, Recreation and Holidays

Refers to sight-seeing, shopping, attending sporting and cultural activities, non-professional active sports, trekking and mountaineering, use of beaches, cruises, gambling, rest and recreation for armed forces, summer camp, and honeymooning.

b) Visiting friends and relatives

Refers to persons visiting relatives or friends, also persons on home leave, attending funerals, care of invalids.

c) Business and Professional

Refers to persons attending meetings, conferences or congresses, trade fair and exhibition; giving lectures or concerts; government mission, diplomatic, military or international organization personnel; paid study, education and research; incentive travel; installing equipment, inspection, purchases, sales for foreign enterprises and other business.

d) Health treatment

Refers to spas, fitness, thalassotherapy, health resorts and other treatments and cures.

e) **Religion/pilgrimages**

Refers to persons attending religious events.

f) **Other purposes**

Refers to aircraft and ship crews on public carriers, transit and other or unknown activities.

11.6.9 Domestic Same-day Visitor

Refers to a 'Domestic Same-day Visitor' describes a domestic visitor whose visit lasts less than 24 hours and does not involve overnight.

11.6.10 Walking Tourists

Refers to tourists who are normally knowledgeable of the potential attractions and prices. They make their own arrangements by establishing contact with local tour operators or service providers.

11.6.11 Package Tours

Refers to visitors arriving in mass with their travel arrangements made abroad. The volume of their expenditure is relatively bigger.

11.6.12 Nights

Refer to the number of nights spent by a person in accommodation establishments. If a person travels to a country/place and spends five nights there, that makes five tourist nights.



11.6.13 Tourism Accommodation

Refers to any facility that regularly or occasionally provides overnight accommodation for visitors. The tourism accommodation is divided into two main groups:-

a) **Collective Accommodation Establishments**

These are establishments providing overnight lodging for the visitors in a room or some other unit, but the number of places it provides must be greater than a specified minimum for groups of person exceeding a single family unit and all the places in the establishment must come under a common commercial-type management, even if it is non-profit-making. The standard classification of collective accommodation establishment includes:-

- Hotel and similar establishments
- Specialized establishments such as health establishment's work and holiday
- Camps, public means of transport and conference centres
- Other collective establishments such as holiday dwellings, tourists' campsites and others.

b) Private accommodation and establishments

These are establishments providing a limited number of places for rent or without charge. Each accommodation unit (room or dwelling) is then independent and is occupied by visitors, usually by week, fortnight or month or by its owners as a second or holiday home. The standard classification of private accommodation establishment includes:-

- Owned dwellings
- Rented rooms in family homes
- Dwellings rented from private individuals or professional Agencies
- Accommodation provided without charge by relatives or friends
- Other private establishments.

11.6.14 Nationality of a Visitor

Refers to the government issuing the visitor his/her passport or other identification document, even if he/she normally resides in another country.

11.6.15 Arrivals

Refer to the number of arrivals of visitors and not to the number of persons. The same person who makes several trips to a given country during a given period will be counted each time as a new arrival.

11.6.16 Departures Abroad

Refer to the 'Number of departures i.e. the visits that each person makes from his country of usual residence to any other country for any purpose other than exercising a remunerated activity in the country visited.

11.6.17 Duration of Stay

Refers to the time spent in the place or country.

11.6.18 Average Length of Stay

Refers to the average number of nights spent by a tourist in the country visited.

11.6.19 Mode of Transport

Refers to type of transport used by international visitors or tourists arriving in the country.

11.6.20 Number of Rooms

Refers to the total number of rooms in all establishments offering accommodation available during the peak period of the tourist season.

11.6.21 Number of Bed-placed

Refers to the total number of bed-placed in all establishments offering accommodation available during the peak period of the tourist season.

11.6.22 Occupancy Rates

The occupancy rate corresponds to the relationship between available capacity and the extent to which it is used. This rate may refer either to the use of rooms or beds. Occupancy rates are based on the number of nights of both domestic and international tourist.

11.6.23 Room Occupancy Rate

It is the proportion utilized, in percentage, of the number of room nights available during specified period, that is: -

$$\text{Room Occupancy Rate (\%)} = \frac{\text{Room - nights Utilized}}{\text{Room - nights Available}} \times 100$$

11.6.24 Bed Occupancy Rate

It is the proportion utilized, in percentage, of the number of bed-nights available during specified period, that is: -

$$\text{Bed Occupancy Rate (\%)} = \frac{\text{Bed - nights Utilize}}{\text{Bed - nights Available}} \times 100$$

11.6.25 International Tourist Receipts

Refers to receipts of a country resulting from expenditures by tourists. i.e. payments for goods and services, made by international visitors to use for themselves or give away.

11.6.26 International Tourist Expenditure

Refers to the total expenditure made by a visitor or on behalf of a visitor for and during his/her trip and stay at the destination. i.e. payments for goods and services, made by residents of a country visiting abroad.

11.7 International Migration Statistics

Labour migration across nations has been in existence for a long time and it is a process that occurs due to pull and push factors including involuntary or forced migration due to wars and political instabilities and voluntary reasons. The increased migration is a result of several factors; wars, social instabilities economic reasons such as hardships and increased unemployment, education reasons among others.

11.7.1 International Migration

Refers to movement of people between Tanzania and other sovereign states.

11.7.2 Immigration Control System

Refers to a system whereby movements of people between countries are controlled, traveling documents including passports and visas are issued to immigrating people to ensure that only legal migrants are allowed entry and stay in the country.

11.7.3 Travel Document

Refers to a valid passport or an internationally recognized document containing the personal particulars, signature or finger print and clear recent photograph of the holder and which is issued by or on behalf of the Government of a member state of which the visitor is a citizen and on which endorsement may be issued and may include an approved laissez -passer of boarder pass.

11.7.4 Immigration

Refers to movement from one country to the other for the purpose of settling or visiting. Migrants include refugees, tourists, residents and others traveling across borders within a certain specific country.

11.7.5 Immigrant

Refers to any foreign person moving, who seeks entry in another country for the purpose of visiting. (or any purpose other than mentioned above).

11.7.6 New Immigrants

Refers to persons who enter Tanzania and plan to stay for at least six months. Included in this category are students studying abroad but with parents in Tanzania.

11.7.7 Emigrant

Refers to any foreign person moving from his/her own country abroad for purpose of settling or visiting.

11.7.8 Permanent Emigrants

Refers to Tanzanian residents who leave Tanzania permanently.

11.7.9 Temporary Emigrants

Refers to Tanzanian residents who leave Tanzania and intend to come back

11.7.10 Residents

Refers to persons who have stayed or plan to stay in Tanzania for at least six months.

11.7.11 Returning Residents

Refers to Tanzania residents returning from abroad. Included in this category are students studying abroad or Tanzania residents coming back from holiday trips, business trips, and so on.

11.7.12 Visitor

Refers to any person traveling to any place other than that of his/her usual environment for less than 12 months and whose purpose of the trip is other than the exercise of an activity re-enumarated from within the place visited.

11.7.13 Visitors on Holidays

Refers to persons who enter Tanzania and whose main purpose of the journey is holiday trip. Included in this group are children on school vacation in Tanzania if their parents are not residents of Tanzania.

11.7.14 Visitors on Business

Refers to persons who enter Tanzania and whose main purpose of journey is business trip.

11.7.15 Visitors on Holiday, Business or in Transit

Refers to persons who leave Tanzania, after a holiday trip, business trip or after an in transit stop.

11.7.16 Persons in Transit

Refers to persons who enter Tanzania and either stay at the airport in transit or hold an in-transit passes valid for a period of up to one month.

11.7.17 Country of Departure

Refers to the country where the recent journey started.

11.7.18 Country of Final Destination

Refers to the country where the final journey will end.

11.8 Wildlife Statistics

11.8.1 Authorised Association

Refers to a community based organization whose primary objective is to conserve wildlife resources for the benefit of local community members ordinarily residing in that area and given the mandate by the Directors to do so on village land.

11.8.2 Biological diversity

Refers to the variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and ecosystems (adopted from CBD)

11.8.3 Community- Based Conservation

Refers to conservation of wildlife and wetlands resources based on the participation of the village communities.

11.8.4 Core Protected Areas

Refers to Nation Parks, Game reserves, Ngorongoro conservation Area and wetlands reserves.

11.8.5 Corridor

Refers to land area used by wild animals in their movements from one part of the ecosystem to another at any given time in search of basic requirements such as water, food, space and habitat.

11.8.6 Ecosystem

Refers to a dynamic complex of plant, animal and micro-organism communities and their non-living environment interacting as a functional unit (adopted from CBD).

11.8.7 Farming

Refers to intensive husbandry (breeding/raising) of one or few wildlife species on relatively small areas (less than 25 ha) whenever suitable infrastructures and services available in urban areas, totally enclosed, and under more-or-less heavily managed conditions that tend to domesticate the animals, with the purpose of engaging in different forms of wildlife utilization.

11.8.8 Game sanctuary

Refers to a place where wild animals are reared in captivity, relatively in a large area in a natural state primarily for educational and recreational purposes.

11.8.9 General Management Plan

Refers to a tool to guide management and development programmes of PA and wetlands.

11.8.10 Habitat

Refers to the place or type of site where an organism or population naturally occurs (adopted from CBD)

11.8.11 High conservation value

Refers to wetland areas that provides vital values and functions described in Section 2.5 of policy, including those with high degree of endemism, harbor endangered or rare species or habitat which is under- represented in the Tanzania protected area networks.

11.8.12 In-situ conservation

Refers to the conservation of ecosystem and natural habitats and the maintenance and recovery of viable populations of species in their natural surroundings (modified fro CBD)

11.8.13 Land use

Refers to activities carried out on a given piece of land.

11.8.14 Local Communities

Means as described to it in the Local Government (District Authorities Act of 1982).

11.8.15 Local Government Authority

Means as described to it by the local Government (district Authorities) Act of 1982 as well as by the Local Government (urban Authorities) Act of 1982.

11.8.16 Management Authority

Refers to recognized established institutions with the mandate to manage a particular PA or piece of land or wetland.

11.8.17 Man made wetland

Refers to constructed wetlands area or terrestrial area purposely impounded with temporary or permanent water with the aim of collecting or storing water to supply goods and services such as electricity, fishery, water and sports

11.8.18 Migration

Refers to the movement of wild animals commonly birds and mammals over large distances in search of basic needs.

11.8.19 Migratory route

Refers to an area, strip or zone of land used by wild animals during their migratory cycles or seasonal movements.

11.8.20 Modified wetland

Refers to naturally occurring wetland area used for crop cultivation or transformed in the process of or for the purpose of undertaking sports.

11.8.21 National Game

Refers to animal species declared so by the minister.

11.8. 22 Natural Resources

Refers to biological resources which include forestry, aquatic fauna and flora, bees and wildlife.

11.8. 23 Protected Area

Refers to a geographically defined area which is designated or regulated and managed to achieve specific conservation objectives (adopted from CBD)

11.8. 24 Protected Species

Refers to an animal or plant species protected by an international convention, or laws of Tanzania or any other country, including a National Game.

11.8. 25 Ramsar Site

Refers to wetland area of international importance as ascribed by the Ramsar Convention on Wetland (Iran 1971)

11.8. 26 Sustainable utilization/use

Refers to human use of wildlife and wetland resources in a way and at a rate that does not lead to long term decline of the resources, thereby maintaining its potential to meet the needs and aspirations of present and future generations (modified from CBD)

11.8. 27 Wetlands

Refers to areas of marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salty including areas of marine water the depth of which at low tide does not exceed six metres. It may also incorporate riparian or coastal zones adjacent to the wetlands, and island or bodies of marine water deeper than six metres at low tide lying within the wetlands.

11.8.28 Wildlife Protected Areas

Refers to National Parks, Game Reserves, Ngorongoro Conservation Area, Game controlled Area and Wetland Reserves.

11.8.29 Wetland Reserves

Refers to any wetland area declared to be a wetlands reserve as ascribed in Article 4 of the Convention on wetlands (Ramsar, 1971) by an order made under the wildlife Act.

11.8.30 Wetlands Resource

Refers to all resources including soils, water, fauna and flora found in wetlands whose meaning is ascribed in this policy.

11.8.31 Wildlife Resources

Means resources as described in the meaning of wildlife.

11.8.32 Wildlife sector

Refers to wildlife division, Tanzania National parks, Ngorongoro Conservation Area Authority, Tanzania wildlife Research Institute, college of Africa Wildlife Management, private sector and individuals directly dealing with wildlife related matters in Tanzania.

11.8.33 Wildlife

Refers to those species of wild and indigenous animals and plants, and their constituent habitats, including wetlands and ecosystems, to be found in Tanzania, as well as those exotic species that have been introduced to Tanzania, and those are temporarily maintained in captivity or have become established in the wild.

11.8.34 Wildlife Management Area

Refers to an area set aside by village Council for the purpose of conservation of wildlife and other biological natural resources, under the wildlife Act.

11.8.35 Wise Use

Refers to sustainable utilization of wetlands for the benefit of mankind in a way compatible with the maintenance of the natural properties of ecosystems.

11.8.36 Zoo

Refers to a place where wild animals are kept in captivity, normally in cages or padlocks for recreation, research and educational purposes.

11.9 Forest

Refers to all land bearing a vegetative association dominated by trees of any size, exploitable or not, and capable of producing wood or other products of exerting influence on the climate or water regime or providing shelter to livestock and wildlife.

11.9.1 Forest administration

Comprises Government of Tanzania administration of forestry .

11.9.2 Forest authorities

Comprise Government of Tanzania authorities of forestry .

11.9.3 Forest land

Refers to an area of land covered with trees, grass and other vegetation but dominated by trees.

11.9.4 Forest land lease

Refers to forest land or land suitable for afforestation is leased to the private sector. The terms of the lease define the management principles and obligations. The management planning and plan implementation is carried out by the lessee. The lease is renewed after certain periods provided that the land is well-managed. The government collects an annual lease fee.

11.9.5 Forest product

Refers to all wood and non-wood forest products.

11.9.6 Forest reserve

Refers to forest area, either for production of timber and other forest produce or protective for the protection of forests and important water catchments, controlled under the Forests Ordinance and declared by the Minister.

11.9.7 Forest resources

Refers to all wood and non-wood-based resources in the forests.

11.9.8 Agro-forestry

Refers to practice where agricultural crops and trees are intercropped on one farm land.

11.9.9 Central government forest reserve

Refers to forest area administered and managed by the central government.

11.9.10 Concession

Refers to a long-term agreement between the government and a forest industry

Enterprise entrusting the latter to manage a forest reserve, industrial plantation or part thereof mainly for timber production. The forest is managed in accordance with the approved management plan.

The company is responsible for all harvesting and silviculture activities including road construction and maintenance. The government collects the agreed royalties and concession fees.

11.9.11 Executive agency

Refers to an autonomous self-financing commercial agency owned by the government and created for the specific purpose of managing a forest reserve or an industrial plantation. The staff are government employees but with specific terms and conditions defined for employment by the agency.

11.9.12 Firewood

Refers to includes part of trees made up into bundles or loads or cut wood for burning, and refuse wood in general, but does not include logs or poles.

11.9.13 Game reserve

Refers to a reserved area aimed for game production and conservation with a good population and diversity of wildlife and/or critical water and/or soil resources necessary to maintain ecological integrity and support the subsistence needs of communities outside the reserve boundaries.

11.9.14 Industrial plantation

Refers to an area of land planted with trees for industrial use.

11.9.15 Joint forest management

Refers to involvement of local communities or non-governmental organisations in the management and conservation of forests and forest land with appropriate user rights as incentives.

11.9.16 Licence

Refers to a valid licence granted by the director of forestry or any person duly authorised by him in that behalf or by a local authority.

11.9.17 Livestock

Refers to cattle, sheep, goats, pigs, horses, donkeys, mules and all other domesticated animals and their young.

11.9.18 Local authority

Refers to a district council, city council, municipal council, town council, local council and village council.

11.9.19 National park

Refers to area representing outstanding natural, archaeological or cultural resources of Tanzania's heritage and/or critical water and/or soil resources necessary to maintain ecological integrity. National Parks are created and controlled through National Park Ordinance and declared by an act of Parliament.

11.9.20 National tree

Refers to any tree declared by order to be a national tree or trees reserved for a specific reason.

11.9.21 Nature reserve

Refers to a forest reserve legally declared for nature conservation of genetic resources and for scientific studies.

11.9.22 Owner

Refers to any person having a freehold or leasehold estate (or any interest deemed under any law for the time being in force to be a freehold or leasehold estate), having a right of occupancy in respect of such land.

11.9.23 Tenure

Refers to holding of land or other property through arrangements such as leasehold, freehold, customary ownership, and other such forms of holding.

11.9.24 Traditional forest

Refers to a forest reserve governed under customary law.

11.9.25 Tree

Refers to palms, bamboos, canes, shrubs, bushes, plants, poles, climbers, seedlings, saplings, and the re-growth thereof, all ages and all kinds and any part.

11.9.26 Village forest reserve

Refers to a forest which is owned and managed by the village government.

11.10 Foreign Private Investments

11.10.1 Balance of Payments (BOP)

Is a statistical statement designed to provide, for a specific period of time, a systematic record of an economy's transactions with the rest of the world. BOP refers to transactions between residents and non-residents for a period of time, usually one year. It is a statistical statement that brings together inflows and outflows of transactions classified under appropriate components, in two accounts – the current account and capital and financial accounts. BOP data are therefore concerned with transactions between residents and non-residents and NOT with the currency of transaction. Typically, a transaction in foreign currency between two residents of any country would not be considered a BOP transaction.

11.10.2 Resident, Non-Resident and Country of Residence

Residency is a particularly important attribute of an institutional unit in the Balance of Payments because the identification of a transaction between residents and non-residents underpins the system. A resident is any individual, enterprise, or other organization ordinarily residing in Tanzania. In other words, its centre of economic activity is in Tanzania. All other entities are regarded as non-residents. For statistical purposes, an individual who lives in Tanzania for more than a year is considered to be a resident, regardless of the individual's citizenship or nationality. An enterprise incorporated in Tanzania is considered a resident of Tanzania irrespective of the domicile of the owners of the enterprise. A branch of a foreign company operating in Tanzania for more than a year is treated as a resident of Tanzania.

11.10.3 Flows

Flow is a change and it takes place during a period of time. Private Capital Inflows can be seen as an increase in international indebtedness (liabilities) to a country's private sector during a specified period of time. This constitutes foreign investment in an enterprise. Capital Outflows can similarly be seen as an increase in country's Investment (Assets) abroad. This also implies Investments abroad by a domestic enterprise.

11.10.4 Categories

Flows falls under three major categories namely, transactions, holding gains or loses and other changes in Assets. Transactions are economic exchange involving two economic entities (e.g. a foreign and a local enterprise). It may be worth noting that all transactions are flows but not all flows are transactions. Holding gains and loses (also known as valuation changes or capital gain/loses) are those types of flows that involve change in stock position that is due to price changes of an asset, but not a result of economic interactions. These are types of flows which are not transactions thus not recorded in BOP.

11.10.5 Stocks

Stock refers to position at a point in time (e.g end of year position). Stocks can be divided into assets and liabilities.

11.10.6 International Standard Industrial Classification (ISIC)

Is a standardized way of dis-aggregating economic activities for international data comparison purposes. For the current census, this has been modified with further dis-aggregation to better cover activities in Tanzania and remains consisted with international norms.

11.10.7 Estimated- Market value

Market values or market prices are used for valuing transactions. This is the amount of money that a willing buyer pays to acquire something from a willing seller, when such an exchange is done between independent parties and on the basis of commercial considerations only. This is the best measure of economic value. The actual price at which transactions are recorded in the books of the transactors will be the market price – or a close approximation thereof. However, these transactions may be between related companies – which could impact on the `commercial consideration` of market values. Related companies in different countries may charge transfer prices to each other (different to what they would have charged independent parties) so as to shift profits between enterprises and countries, and minimize taxes. Market values are usually difficult to estimate. The Preferred techniques of calculating market values (particular to equity) include stock exchange valuations of listed companies, auditor's estimates of market values, a recent purchase or sale between directors of the company, Director's estimate, Financial Manager's estimate, and accountant's estimate.

11.10.8 Asset

An asset is anything owned, whether in possession or by right to take possession, by a person or a group acting together.

11.10.9 Net asset value

This is the difference between assets and liabilities

11.10.10 Book values

This is the sum of equity capital + reinvested earnings + other reserves

11.10.11 Regional Classifications:

A way to define geographical distribution of economic activities, enterprises and subsidiaries in Tanzania. e.g. Dar es Salaam, Arusha, Mwanza, Mbeya, Tanga e.t.c.

11.10.12 Related Companies

Related companies with a direct investment enterprise (10% of ordinary shares) are subsidiaries (a non-resident owner owns more than 50% of the shares) and associates (50% or less). Branches (unincorporated enterprises wholly owned by non-residents).

11.10.13 Equity

These are shares in a company, and equivalent ownership interest in unincorporated enterprises. Direct equity Investment denotes ownership of 10% or more of the ordinary shares, voting power, or equivalent in an enterprise, by someone resident in another economy.

11.10.14 Non-equity

All other financial instruments including loans, trade credit and supplier credit (for goods and services), bonds, debentures, notes, money market instruments, shareholder and inter-company loans, arrears of debt or interest, and deposits.

11.10.15 Foreign Direct Investment (FDI)

This is defined as a case where a resident entity in one economy (creditor) acquires lasting interest in an enterprise in another economy (recipient) with significant degree of influence. Usually FDI is in the questionnaire of ownership of means of production like factories or equity share including equity purchase, reinvested earnings and inter-company loans and debt transactions. FDI in the census questionnaire is obtained by summing up: new equity investment plus reinvested earnings plus the sum of {shareholder and inter-company loan (long term) + shareholder and inter-company borrowing (short-term) + supplier's credit from related company (short term)}.

11.10.16 Shareholder and inter-company loans/borrowing

This is the borrowing or lending of funds (among related companies) between the direct investor (non-resident) and the direct investment enterprise (resident). These transactions can create or dissolve investment as well as maintain, expand or contract it.

11.10.17 Foreign Portfolio Investment (FPI)

Foreign Portfolio Investment (FPI) are purely financial assets, which include, Foreign Portfolio Equity Investment (FPEI), Investments in Bonds, Money market instruments and Financial derivatives other than the items included in the definition of foreign direct investment.

11.10.18 Foreign Portfolio Equity Investment (FPEI)

This is defined as a case where a shareholder owns less than 10% of equities in an enterprise. Foreign Direct Equity Investment (FDEI): Is the case of 10% or more of equity share in an enterprise.

11.10.19 Voting (Powers) Rights

This relates to the objective of obtaining a lasting interest in an enterprise resident in another economy. In the case of direct investment, a 10% or more ownership of the ordinary shares or voting rights in an enterprise is considered sufficient to empower the direct investor to have a significant influence over the key policies and management of the direct investment enterprise.

11.10.20 Dividends

These are income on equity. They are the distributed earnings allocated to shares and other forms of participation in the equity of incorporated private enterprise, cooperatives and public corporation.

11.10.21 Reinvested (or retained) earnings (profits)

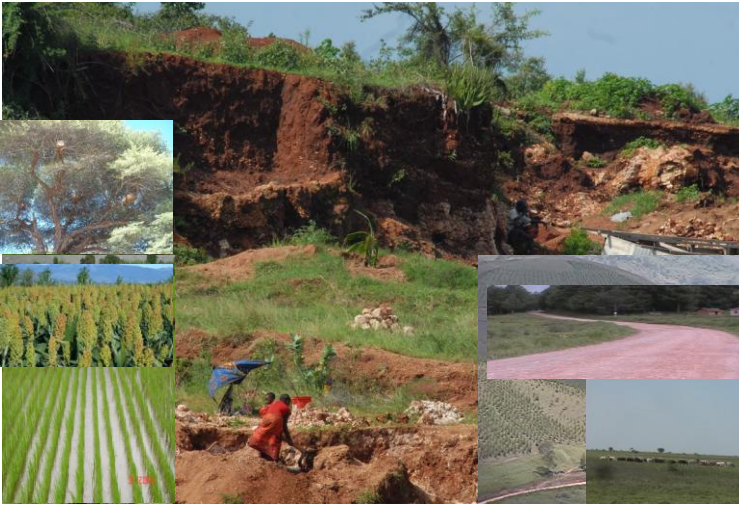
These are the direct investor's share (calculated as a proportion of direct equity held) of that part of the earnings (after tax on earnings) that are not distributed as dividends by the direct investment enterprise, together with the earnings of branches that are not remitted to the direct investor. This is a component of FDI.

11.10.22 Supplier's Credits

These include trade credits. On one hand they are claims from the direct extension of credit by suppliers of goods and services to buyers, while on the other hand they are liabilities of buyers of goods and services. In addition this concept include advance payments for work in progress, or to be undertaken, associated with such transactions. Most are short term.

CHAPTER TWELVE

ENVIRONMENTAL STATISTICS



Environment is a complex set of physical, geographic, biological, social, cultural and political conditions that interact with individual or organism and that ultimately determines its form and nature of its survival.

Environment Statistics refers to statistics that describe the state and trend of the environmental resources and/or components (air, weather, climate, biodiversity, water, scenery, land and/or soils).

12. Afforestation

This is deliberate establishment of forests by planting or seedling in an area of non-forest land.

12.1 Reforestation

Refers to re-establishment of forests

12.2 Air Pollution

The presence of contaminant in the air that do not disperse properly and harmful environmental effects.

12.3 Catchments area

Area from which various sources of water drains into river systems, lakes and seas/ocean.

12.4 Climate change

Terms used in reference to global warming due to greenhouse gas emissions from human activities (IPCC, 2007).

12.5 Deforestation

Clearing of tree formations and their replacement by non-forest land uses

12.6 Desertification

Land degradation in arid, semi -arid and dry sub-humid areas resulting from various factors, including climatic variations (drought) and human activities (overexploitation of dry lands).

12.7 Disposal of waste

Waste elimination techniques comprising landfills, containment, underground disposal, dumping at sea and all other disposal methods.

12.8 Emission

Discharge of pollutants into the atmosphere from stationary sources such as smokestacks, other vents, surface areas of commercial or Industrial facilities and mobile sources for example, motor vehicles, locomotives and aircraft.

12.9 Emission Factor (Coefficient)

It is a ratio of the amount of a pollutant generated to the amount of a given raw material processed. It may also refer to the ratio of the emission generated to the output of a production process.

12.10 Emission Standard

It is the maximum amount of a polluting discharge legally allowed from a single source, mobile, or stationary.

12.11 Environment

The totality of the external conditions affecting the life development and survival of an organism.

12.12 Environmental Costs

Costs connected with the actual or potential deterioration of natural assets due to economic activities.

12.13 Environmental Degradation

Deterioration in environmental quality from ambient concentration of pollutants and other activities and processes such as improper land use and natural disasters.

12.14 Environmental Expenditures

Capital and current expenditures related to characteristic activities and facilities specified in classifications of environmental protection activities.

12.15 Environmental Indicators

Parameter or a volume derived from parameters that points to provide information about and/or describes the state of the environment and has a significance extending beyond that directly associated with any given parametric value. The term may encompass responses (OECD, 1994).

12.16 Environmental Quality

State of environmental conditions in environmental media, expressed in terms of indicators or indices related to environmental quality standards.

12.17 Environment Statistics

Statistics that describe the state and trends of the environment, covering the media of the natural environment air/climate, water, (land/soil), the biota within the media, human settlements. Environment statistics are integrative in nature, measuring human activities and natural events that affect the environment, the impacts of these activities and events, social responses to environmental impacts and the quality and availability of natural assets. Broad definitions include environment indicators, indices and accounting.

12.18 Erosion

Wearing away and transport of the soil by wind or running water, glaciers or waves. Erosion occurs naturally but is often intensified by human land-clearing activities related to farming, residential or industrial development.

12.19 Exhaust Gases

Gases produced by the burning of petrol (gasoline) in combustion engines. Exhaust gases are harmful to human beings, plants and animals.

12.20 Fuel wood

All wood in the rough used for fuel purposes. It is common noncommercial biological fuel.

12.21 Household waste

Waste material usually generated in the residential environment. Waste with similar characteristics may be generated in other economic activities and can thus be treated and disposed of together with household waste.

12.22 Indoor Air Pollution

Chemical biological and physical contamination of indoor air. It may result in adverse health effects. In developing countries the main source of indoor air pollution is biomass smoke which contain suspended particulate matter (SPM), nitrogen dioxide (NO₂), sulphur dioxide (SO₂), carbon monoxide (CO), formaldehyde and polycyclic aromatic hydrocarbons (PAHs). In industrialized countries in addition to NO₂, CO and formaldehyde, radon, asbestos, mercury, human – made

mineral fibres, volatile organic compounds allegeus, tobacco smoke, bacteria and viruses are the main contributors to indoor air pollution.

12.23 Industrial waste

Liquid, social and gaseous wastes originating from the manufacture of specific products.

12.24 Land Degradation

Reduction or loss of biological or economic productivity and complexity of rain-fed cropland, irrigated cropland, or range, pasture, forest or woodlands resulting from nature processes, land used or other human activities and habitation patterns such as land contamination, soil erosion and distinction of the vegetation cover.

12.25 Land Use

Information on land cover and the types of human activity involved in land use.

12.26 Marine Pollution

Direct or indirect introduction by humans of substances or energy into the marine environment resulting in harm to living resources, hazards to human health, hindrances to marine activities including fishing, impairment of the quality of sea water and reduction of amenities.

12.27 Overgrazing

Grazing by livestock or wildlife to the point where the grass cover is depleted, leaving bare, unprotected patches of soil.

12.28 Ozone

Pungent, colourless, toxic gas that contains three atoms of oxygen in each molecule.

12.29 Ozone Depletion

Destruction of ozone in the stratosphere, where it shields the earth from harmful ultraviolet radiation.

12.30 pH Value

Measure of the acidity or alkalinity of a liquid. A pH value in the range 0 to 7 indicates acidity, a pH value in the range of 7 to 14 indicates alkalinity, and pH value of 7 signifies neutrality.

12.31 Sewage

Organic waste and wastewater produced by residential and commercial establishments.

12.32 Vegetation cover

All trees, shrubs, herbs, deciduous plants and so forth that cover an area or region.

12.33 Water Pollution

Presence in water of harmful and objectionable material – obtained from sewers, industrial wastes and rain water run – off – in sufficient concentrations to make it unfit for use.

12.34 Biodiversity

This is the concept used in analyzing and defining the state of the planet earth and its conservation. It is coined from two words, i. e. Bio (life) + Diversity (varieties and/or variations) to explain varieties of life forms on earth. Biodiversity therefore, is the variability among living organisms from all sources including terrestrial, marine and other aquatic ecosystems, and the ecological complexes of which they are part. This includes diversity within species, between species, and of ecosystems. Biodiversity is defined and analysed at three levels which are: species, genetics and ecosystems.

12.35 Ecology

Ecology is the study of interactions of organisms with one another and with their physical and chemical environment. The term ecology was derived from a Greek word: oikos (home/house) and oiya (study of...).

An understanding of ecology is very important for the survival of human being, i. e. the human species. Although it includes the study of environmental problems such as pollution, the science of ecology mainly involves research on the natural world from many viewpoints, using many techniques. Modern ecology relies heavily on experiments, both in laboratory and in field settings. These techniques have proved useful in testing ecological theories, and in arriving at practical decisions concerning the management of natural resources. Social, economic and political factors often influence the short-term distribution of resources needed by a specific human population. An understanding of ecological principles can help us understand the global and regional consequences of competition among humans for the scarce natural resources that support us.

Ecology is therefore, a science that contributes considerably to our understanding of evolution, including our own evolution as a species. All evolutionary change takes place in response to ecological interactions that operate on the population, community, ecosystem, biome and biosphere levels. Studies conducted within the scientific discipline of ecology may therefore focus on one or more different levels: on populations of a single species, on an interacting community involving populations of many species, on the movement of matter and energy through a community within an ecosystem, on large scale processes within a biome, or on global patterns within the biosphere.

12.36 Ecosystem

An ecosystem: a community of plants, animals (including human beings) and smaller organisms that live, feed, reproduce and interact in the same area or environment.

An ecosystem is a biological environment consisting of all the organisms living in a particular area, as well as all the nonliving, physical components of the environment with which the organisms interact, such as air, soil, water, and sunlight. It is all the organisms in a given area, along with the

nonliving (abiotic) factors with which they interact. It is therefore a biological community (biotic factors) and its physical environment

The whole earth's surface can be described by a series of interconnected ecosystems. All living beings form and are part of ecosystems. They are diverse and always changing. Within an ecosystem, all aspects of the environment (both living things and their non-living settings) interact and affect one another. Every species affects the lives of those around them.

12.37 Ecosystem Services

Ecosystem services can be defined as livelihood ingredients that people obtain from the environment. Ecosystem services are the transformation of natural assets (land, soil, plants and animals, minerals, scenery, air and water) into things that we value. These services can be viewed as provisioning such as food, water, medicine, construction/building materials, tourism and recreation; and wild genes for domestic plants and animals; regulating, for example, flood and disease control; cultural such as spiritual, recreational, and cultural benefits; or supporting like nutrient cycling that maintain the conditions for life on Earth.

The ecosystems of planet Earth are coupled to human environments. Ecosystems regulate the global geophysical cycles of energy, climate, soil nutrients, and water that in turn support and grow natural capital (including the environmental, physiological, cognitive, cultural, and spiritual dimensions of life). Ultimately, every manufactured product in human environments comes from natural systems. Ecosystems are considered common-pool resources because ecosystems do not exclude beneficiaries and they can be depleted or degraded.

12.38 Biosphere

Biosphere is the total sum of ecosystems on the planet. It is used to depict ecological relations that regulate the influx of energy, nutrients and climate all the way up to the planetary scale. It involves among others the following components

Species, Endangered species, Endemic species, Wetlands, Genetic Resources, Natural Resources, Land, Terrestrial ecosystem, Aquatic ecosystems, Coastal areas, Coastlines, Global Warming, Landscape, Climate, Pollution (Air, Water and Soil) and Waste

PART FOUR: TECHNICAL SERVICES COORDINATION SECTOR

CHAPTER THIRTEEN

CENTRAL REGISTER OF ESTABLISHMENTS

Central Register of Establishments (CRE) is the directory (or list) of all operating establishments on Tanzania Mainland. It is supposed to include all establishments on Tanzania Mainland employing at least one worker on permanent basis.

13. Establishments

It is an economic unit, which engages, under a single control, in one or predominantly one kind of economic activity at a single location i.e. an individual firm, factory, workshop or mine. Due to record keeping practices, it is not always possible to strictly follow the definition of an establishment. In some cases the restrictions, especially on location, are relaxed. When restrictions are relaxed they give rise to local, kind of activity and enterprise units.

13.1 Establishment Identification

Establishment Identification (ESTID) number is a seven digit unique number in the whole database. The first two digits refer to the number of a region; the next two digits refer to the number of a district in that region and the last four digits refer to the identification number of an establishment. Normally the register for public users is presented alphabetically within the district.

13.2 Regional Code

Regional codes consist of two digits that is 01 – 21. Tanzania Mainland has 21 administrative regions.

13.3 District Code

The district codes consist of two digits confined within district.

13.4 Location

Refers to the smallest area where the establishment is located. In town, it consists of the street/road name, the plot number and the number of the building housing the establishment. While in the village, the name of the village and the hamlet (part of a village) is given.

13.5 Area

Refers to the name of the locality in which the establishment is situated. For instance Kariakoo, Manzese and Chang'ombe.

13.6 Industry

Refers to the main economic activity of an establishment. It includes all activities as stipulated in the International Standard Industrial Classification (ISIC) - Revision 3. If an establishment is

engaged in two economic activities, it should be separated into two establishments e.g. 1. Auto Motor Sales Department (Code 6206) 2. Auto Motor Vehicles Repair (Code 9513).

13.7 Sector

Refers to classifying an establishment according to type of ownership.

13.8 Employees

Persons who during the reference period performed some work for pay in cash or in kind or who were temporarily absent from such work as explained under 4.1.4. It therefore includes person employed under permanent, temporary or casual terms.

13.9 Self -Employed Persons

Refers to working proprietors and unpaid family workers who work for an establishment but not receiving regular wages or salaries.

CHAPTER FOURTEEN

GEO-INFORMATION SYSTEM /SPATIAL DATA

Geographical Information System (GIS) is a system of hardware, software and procedures designed to support the capture, management, manipulation, analysis and display of geo-referenced maps and data. The Geo-Information Section is already developing a digital geographic database, but a full GIS is a very expensive and complex technology that needs to be implemented only at a level appropriate to the skills and resources available.

14. Maps

Refer to a scientific and technical representation of physical and manmade features of the earth's surfaces/land parcel onto a flat surface/sheet of paper with respect to specified scale.

A map is generally small enough to be handled easily, yet it can show a large area. It permits a person to view at a glance those features that he might find difficult to see due to limitations imposed by his size or his location.

There are many kinds of maps, each serving a specific purpose. There are maps that show the location of cities and rivers. There are soil and land use maps, geological and topographic maps, cadastral maps, navigation maps, weather maps, administrative maps, road maps, transportation route maps, city maps and individual property maps. A map shows part or the Earth's entire surface. It shows the real world at a reduced scale; that is, the real world is compressed into a small area on the map. The extent of reduction influences the kind of features and amount of detail that can be shown.

14.1 Census/Survey Maps

Refers to basic maps used for data collection during censuses and surveys. Base maps currently being used by the NBS for creating enumeration areas are produced by the Surveys and Mapping Division of the Ministry of Lands and Human Settlements Development. The country is covered by 1:50,000 topographic base maps (about 1265 sheets). Other base maps include 1:2,500 maps used in cities and towns, 1:250,000 district maps.



14.1.1 Supervisor Area Maps

Refers to an area covered by one supervisor during censuses and surveys. Supervisor Area (SA) map contains enumeration area (EA) boundaries delineated on it. It contains information on the number of enumeration areas under that supervisor. The map is used by the enumeration supervisor in planning his/her travel to observe the enumerators and review their work and verify boundaries so as to ensure that there is no omission and no duplication of area.

14.1.2 Statistical Maps

Refers to maps showing the spatial distribution of statistical data. The purpose is to present significant statistical results in terms of their geographic distribution. Thus interest in the current pattern of distribution and also in changes in the patterns that have occurred over time, particularly since the last census/similar survey is considered.

14.1.3 Point Symbol Maps

Refers to dots or graduated symbols used in representing a certain value on the statistical map.

14.1.4 Choropleth (Shaded Maps)

Refers to administrative areas colour shaded to present several classes of statistical data, such as densities, per capita, ratio of one characteristic to another, etc.

14.1.5 Isopleth Maps

Refers to maps representing statistical data by a series of lines each connecting points at which a given variable has a specific value.

14.2 Map Elements

14.2.1 Scale

Refers to the relationship between the distance on the map as compared to the distance on the ground. By using the scale, census or any other survey staff can determine distances required for field checking, for conducting enumeration, etc. The scale should always be shown on census/survey maps. A Scale may be expressed in three ways;

- (a) word statement,
- (b) numerical fraction, and
- (c) graphic scale. Graphic scale is commonly used in census/survey maps. A graphic or bar scale shows the relationship between distances on the map and on the ground by means of a bar or line, with markings to indicate distances on the ground.

14.2.2 Map Symbols

Refers to figures, lines, colours, or patterns used to indicate certain features on the ground such as administrative boundaries, buildings, rivers, roads, railroads, etc. Symbols are used to show three different types of information; (a) location (b) nature or quality of the features, and (c) Quantity. Maps normally show what features are and where they are as the primary function. Maps showing how much there is of various features are primarily statistical maps.

14.2.3 Other Map Elements

Refer to;

- (a) Grid coordinates: describe all points on the Earth.
- (b) Type of projection: indicates the amount and kind of distortion of the features.
- (c) North arrow: orients the map by compass directions
- (d) Date of the map: reveals how current it is.
- (e) Source of the original materials: give the idea of reliability and accuracy of the map.
- (f) Sheet number: helps in locating other maps for the same area.

14.3 Enumeration Area (EA)

Refers to the smallest geographic area from which census/survey data are collected. The process of selecting and marking EA boundaries on the base map is called delineation. EA delineation team does this work. The same team also designates the Supervision Areas (SAs).

14.4 Codes

Refers to uniquely identification by number of all administrative divisions of every order for which data are to be tabulated. This is made possible by the use of unique numbers assigned to them. Tanzania (Mainland and Zanzibar) has 26 regions, which are divided into districts and further subdivided into wards.

14.4.1 Regional and District Codes

Refers to a two-digit number identifying an administrative region followed by district code with two digits. The total code is thus a four digits identifying the region and district in question.

14.4.2 Ward Code

A ward code has three digits. The first two stand for a serial number of the ward within the district, the third digit classifies the ward/shehia into whether it is pure rural, pure urban or mixed. For example, ward 031 means third ward in a district which is pure rural; 072 means seventh ward which is pure urban; and 113 means eleventh ward which is mixed, that is, part of it is rural while the rest of it is urban.

14.5 Aerial Photography

Refers to a process of recording features on the earth using remote sensing instrument.

14.6 Satellite Imagery

Refers to the collection of information through satellites, that is, information collected from an altitude of 320 kilometers (200 miles) or more. Unmanned satellites, such as Land sat 1 and 2, pass over the entire inhabited Earth many times on a regular basis, providing almost complete coverage of the Earth's surface. The satellites use a particular sensor called a scanner to sense the amount of energy being reflected or radiated from a series of points into numerical values, and radio these values to receiving stations on the Earth. The values are then processed to make pictures for use in the usual interpretation.

14.7 Global Positioning System (GPS)

Refers to a system which allows the collection and maintenance of spatial data for Geographic Information System (GIS) database. It is the ideal solution for mapping and managing spatial data in many applications, including natural resources mapping, environmental studies.

14.8 Automated Cartography

Refers to the map production process using computers, automatic drafting equipment, and microfilm systems. The development of automated cartography increases the speed, accuracy and reduces the cost of map production. Automated cartography depends on the availability of computer readable coordinates associated with specific geographic unit. Each point on a map must be identified and recorded in machine-readable form, producing a computer file, and once the basic file is created, it can be easily updated.

CHAPTER FIFTEEN

SAMPLING

Sampling refers to drawing a sample or selecting a subset of elements from a population. The usual goal in sampling is to produce a representative sample. A sample is equivalent to the population on all characteristics, except that it includes fewer elements. A perfect representative sample would be a “mirror image “of the population from which it was selected, except it would include fewer elements. The selection of a sample can either be through probability or non-probability mechanism.

15. Population

Refers to the totality of the elements under study or entire group of units which is the focus of the study. For example, population could consist of person or non – human units such as farms, houses or establishments such as industry, schools and hospitals.

15.1 A Sample

A set of elements taken from a population.

15.2 A Statistic

A numerical characteristic of a sample.

15.3 Parameter

A numerical characteristic of population.

15.4 Response rate

Percentage of sampled units who actually participate in the study.

15.5 Domain of the Study

Refers to a major segment of the population for which separate statistics are needed. A domain can be either a geographical area or a specified population category, such as a region or major ethnic groups. Domains are very important for the determination of a sample size and sampling distribution of statistics

15.6 Sampling Frame

Refers to a list of units from which a sample is to be selected. It must have characteristics to be studied.

15.7 Sampling Unit

It is a smallest unit or element which is the subject of sample selection or a unit of analysis, such as a person, household or an establishment. Sampling unit may be Primary, secondary, e.t.c. depending on the stages of sampling.

15.8 Estimation

Refers to the process of estimating population characteristics based on the sample statistics. The characteristics may be any variable associated with a member of the population, such as age, income, employment status and the quantity may be a total, proportion, average and standard deviation.

15.9 Statistical Error

The difference between the true population parameters and the estimated statistics from a sample.

15.10 Sampling Error

Refers to an inaccuracy in the estimates of the population characteristics which arise due to the sample on which the estimates are made from.

15.11 Non – Sampling Error

Refers to inaccuracy which occurs when estimating population characteristics due to defective measurement techniques, mistakes during data collection, processing and interpreting, etc

15.12 Sampling Procedure

Refers to the approach followed to select sampling units or elements from the population: non – probability sampling or probability sampling.

(i) Non – Probability Sampling

Refers to the selection of sampling units without using probability mechanism It covers a variety of procedures, including the use of volunteers and the purposive choice of elements for the sample on the grounds it is a “representative” of a population.

(ii) Probability sampling

Refers to the selection of sampling units by using probability mechanism. An essential requirement for any form of probability sampling is the existence of a sampling frame or population from which the sampled elements are selected from. Probability Techniques widely used are: Simple Random Sampling; Systematic Sampling; Stratified Sampling; Cluster. Sampling; Multistage Sampling and Probability Proportional to Size Sampling.

15.13 Simple Random Sampling

Refers to the selection of sampling units of size n from the population of size N . In Simple Random Sampling, each element has an equal chance of being selected

15.14 Stratified Random Sampling (or Stratified sampling)

Refers to the method of selecting a sample from a population of size N where the population is firstly sub – divided into k sub – populations called strata;

- First, stratify your sampling frame (e.g. divide it into the low, medium, high income households or males, females depending on your stratification variable).
- Second, take a random sample from each strata (i.e. take random samples from a low income households, medium income households, high income households, or males, females. The selected random samples will constitute the final sample. (Note: you could also take Systematic samples from respective strata

15.15 Systematic Random Sampling (or Systematic Sampling)

In this sampling method the N units in the sampling frame are arranged in a particular order. Suppose $N = nk$, where n is the sample size and k is an integer, a random number less than or equal to k is selected and thereafter every k^{th} element is selected.

15.16 Cluster Sampling

Refers to the process of firstly selecting a number of clusters from a sampling frame consisting of all clusters. A study is then carried out to all units in the entire selected clusters

- . For example, select geographical areas first and within the selected geographical areas, all households are interviewed

15.17 Multistage Sampling

Refers to the process where selection of the sample is carried out in stages. For example, select geographical areas first and within the selected geographical areas, select households to be interviewed.

15.18 Quota Sampling

Refers to a method of selecting a sample in which investigator collects information from individuals until the sample size (the quota) is attained.

15.19 Probability Proportional to Size Sampling

Refers to the selection of (both primary and secondary) sampling units based on the sizes of the sampling frames. The process of selecting sampling units follows the principal of Multistage Sampling.

15.20 Sampling Weight

Refers to the process of improving survey results by making adjustments for total non – response, to conform to the known population distribution in order to improve precision of sample estimates and analysis of data obtained from a complex sample surveys.

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National Bureau of Statistics

Vision

To be a preferable source of official statistics in Tanzania

Mission

To facilitate informed decision-making process, through provision of relevant, timely and reliable user-driven statistical information, coordinating statistical activities and promoting the adherence to statistical methodologies and standards