THE UNITED REPUBLIC OF TANZANIA

CONCEPTS AND DEFINITIONS FOR OFFICIAL STATISTICS IN TANZANIA

FOURTH EDITION

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National Bureau of Statistics

Vision

"To become a one-stop centre for statistical information in Tanzania"

Mission

"To produce quality statistical information and services that meet needs of national and international stakeholders for evidence-based planning and decision making

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PREFACE

According to the Statistics Act. Cap 351 R.E 2019 one of the functions of the National Bureau of Statistics (NBS) is to develop statistical methods and standards so as to ensure their use by all producers and users of official statistics. The use of defined statistical methods and standards 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 this publication is to produce concepts and definitions that will be used by all producers of official statistics in the entire National Statistical System (NSS).

To allow internal and external comparisons, 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.

The concepts and definitions for official statistics was prepared by the NBS in collaboration with various stakeholders from Ministries, Departments and Agencies (MDAs) within the National Statistical System in Tanzania Mainland. Appreciation goes to the participants who spent their time to provide useful information that has enable NBS to obtain the required information.

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

Dr. Amina Msengwa
Statistician General
National Bureau of Statistics
Dodoma.

INTRODUCTION

The National Bureau of Statistics (NBS) is not the only producer of official statistics in the National Statistical System in the country. However, according to the Statistics Act, Cap 351, NBS is mandated among other functions to coordinate the National Statistical System in the country so as to produce quality statistics that are comparable over time and across subject matter areas.

In order to address the need for both harmonization and standardization, the NBS has been producing guideline documents, including the statistical concepts and definitions publication to be used by all producers and users of statistics so as to enhance harmonization in the production of official statistics in Tanzania.

The First Edition *on Concepts and Definitions* was published in 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. The Third Edition on *Concepts and Definitions for Official Statistics 2016* was reviewed by engaging various stakeholders with expertise in the relevant areas. The fourth edition *of concepts and definition for official statistics, 2025* has incorporated new emerging concepts and definitions among other with the inclusion of new chapter for gender statistics and adding concepts on water, sanitation and hygiene and Geo Information System (GIS).

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 review, develop concepts and definitions for new subject matter areas and promote discussions, comments and constructive suggestions from stakeholders. The updated publication will incorporate the new concepts and definitions and constructive suggestions from stakeholders that will be used to produce quality statistics needed to facilitate evidence-based plans for decision making.

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.

1.0 The System of National Accounts (SNA)

The System of National Accounts (SNA) is the internationally agreed standard set of recommendations on how to compile measures of economic activity. The SNA describes a coherent, consistent and integrated set of macroeconomic accounts in the context of a set of internationally agreed concepts, definitions, classifications and accounting rules.

It provides an overview of economic processes, recording how production is distributed among consumers, businesses, government and foreign nations. It shows how income originating in production, modified by taxes and transfers, flows to these groups and how they allocate these flows to consumption, saving and investment. Consequently, the national accounts are one of the building blocks of macroeconomic statistics forming a basis for economic analysis and policy formulation.

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.

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 compiled on 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 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.

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 GDP deflator is:

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

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 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**.**

1.14 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. Net taxes are the difference between government's tax revenue and the subsidies it gives to people, companies, and other economic sectors.

1.15 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 none 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.

1.16 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.

1.17 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.

1.18 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.

1.19 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.

1.20 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.

1.21 Subsistence Production

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

1.22 Stocks

Stocks are a position in, or holdings of, assets and liabilities at a point in time and the System records stocks in accounts, usually referred to as balance sheets, and tables at the beginning

and end of the accounting period; stocks result from the accumulation of prior transactions other flows in the period (note that stocks of goods are referred to as "inventories" in the System).

1.23 Subsidies

Subsidies are financial assistance provided by the government or other organizations to support specific industries, businesses, individuals, or activities. These payments are intended to encourage production, consumption, or investment in certain areas deemed to be in the public interest.

1.24 Other Subsidies on Production

Other subsidies on production consist of subsidies, except subsidies on products, which resident enterprises may receive as a consequence of engaging in production (eg, subsidies on payroll or workforce or subsidies to reduce pollution).

1.25 Other Subsidies on Products

Other subsidies on products consist of subsidies on goods or services produced as the outputs of resident enterprises that become payable as a result of the production, sale, transfer, leasing or delivery of those goods or services, or as a result of their use for own consumption or own capital formation; there are three broad categories: (1) subsidies on products used domestically, (2) losses of government trading organizations, and (3) subsidies to public corporations and quasi-corporations.

1.26 Export Subsidies

Export subsidies consist of all subsidies on goods and services that become payable to resident producers when the goods leave the economic territory or when the services are delivered to non-resident units; they include direct subsidies on exports, losses of government trading enterprises in respect of trade with non-residents, and subsidies resulting from multiple exchange rates.

1.27 Output

Output consists of those goods or services that are produced within an establishment that become available for use outside that establishment, plus any goods and services produced for own final use.

1.28 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.

1.29 Capital Transfers

Capital transfers are transactions in which the ownership of an asset (other than cash and inventories) is transferred from one institutional unit to another, in which cash is transferred to enable the recipient to acquire another asset or in which the funds realized by the disposal of another asset are transferred.

1.30 Current Transfers

Current transfers consist of all transfers that are not transfers of capital; they directly affect the level of disposable income and should influence the consumption of goods or services.

1.31 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.

1.32 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.

1.33 Final Consumption Expenditure

Refers to transactions on final consumption of goods and services by the household, government, and Non-Profit Institution Serving Households (NPISHs) in the economy during a reference period.

1.34 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.

1.35 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.

1.36 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.

1.37 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.

1.38 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.

1.39 Wages and Salaries in Kind

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

1.40 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.

1.41 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.

1.42 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.

1.43 Acquisitions

Goods and services are acquired by institutional units when they become the new owners of the goods or when the delivery of services to them is completed.

1.44 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.

1.45 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.

1.46 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.

1.47 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.

1.47.1 Exports of Goods

Exports of goods consist of exports of the following items from residents to non-residents, generally with a change of ownership being involved: general merchandise, goods for processing, goods procured in domestic ports by non-resident carriers, and non-monetary gold.

1.47.2 Exports of Services

Exports of services consist of the following services provided by residents to non-residents: transportation; travel; communications; construction; insurance; financial; computer and information; royalties and licence fees; other business services; personal, cultural, and recreational services; and government services not elsewhere classified.

1.48 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.

1.49 Imports of Goods

Imports of goods consist of imports of the following items from non-residents to residents, generally with a change of ownership being involved: general merchandise, goods for processing, goods procured in foreign ports by domestic carriers, and non-monetary gold.

1.50 Imports of Services

Imports of services consist of the following services purchased by residents from non-residents: transportation; travel; communications; construction; insurance; financial; computer and information; royalties and licence fees; other business services; personal, cultural, and recreational services; and government services not elsewhere classified.

1.51 Cost, Insurance and Freight Price (CIF)

The c.i.f. price (i.e. cost, insurance and freight price) is the price of a good delivered at the frontier of the importing country, including any insurance and freight charges incurred to that point, or the price of a service delivered to a resident, before the payment of any import duties or other taxes on imports or trade and transport margins within the country.

1.52 Free On-Board Price (FoB)

The f.o.b. price (free on-board price) is the c.i.f. price less the costs of transportation and insurance charges, between the customs frontier of the exporting (importing) country and that of the importing (exporting) country.

1.53 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.

1.54 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.

1.55 Non-financial Assets

Non-financial assets are entities, over which ownership rights are enforced by institutional units, individually or collectively, and from which economic benefits may be derived by their owners by holding them, or using them over a period of time, that consist of tangible assets, both produced and non-produced, and most intangible assets for which no corresponding liabilities are recorded.

1.56 Non-produced Assets

Non-produced assets are non-financial assets that come into existence other than through processes of production.

1.57 Valuables

Valuables are produced assets that are not used primarily for production or consumption, that are expected to appreciate or at least not to decline in real value, that do not deteriorate over time under normal conditions and that are acquired and held primarily as stores of value.

1.58 Basic Price

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

1.59 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.

1.60 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.

1.61 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.

1.62 Financial Intermediation Services Indirectly Measured

Financial intermediation service indirectly measured (FISIM) is an indirect measure of the value of financial intermediation services provided but for which financial institutions do not charge explicitly.

1.63 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.

General Structure of A Macroeconomic Social Accounting Matrix

		PAYMENTS						
		Activities	Commodities	Factors	Households & Firms	Government	Savings Investment	Rest of the World
RECEIPTS	Activities		**D** Domestic Supply					**E** Export
	Commodities				**C** Private Consumptio	**G** Government Consumptio	**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)
T_X	=	Indirect production tax
D	=	Domestic supply
M	=	Imports (c.i.f.)
C	=	Final private consumption
T_H	=	Income taxes
S_H	=	Domestic private savings
G	=	Government consumption
S_G	=	Government savings
I	=	Investment demand
E	=	Exports (f.o.b.)
S_F	=	Foreign savings

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

1.64 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.

1.65 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.

1.66 Taxes on Products

Taxes on products, excluding VAT, import and export taxes, consist of taxes on goods and services that become payable as a result of the production, sale, transfer, leasing or delivery of those goods or services, or as a result of their use for own consumption or own capital formation.

1.67 Taxes on Production and Imports

Taxes on production consist of taxes payable on goods and services when they are produced, delivered, sold, transferred or otherwise disposed of by their producers plus other taxes on production, consisting mainly of taxes on the ownership or use of land, buildings or other assets used in production or on the labour employed, or compensation of employees paid.

1.68 Taxes and Duties on Imports

Taxes and duties on imports, excluding VAT, consist of taxes on goods and services that become payable at the moment when the goods cross the national or customs frontiers of the economic territory or when the services are delivered by non-resident producers to resident institutional units.

1.69 Deductible VAT

Deductible VAT is the amount of VAT payable on purchases of goods or services intended for intermediate consumption, gross fixed capital formation or for resale which a producer is permitted to deduct from his own VAT liability to the government in respect of VAT invoiced to his customers.

1.70 Non-deductible VAT

Non-deductible VAT is the VAT payable by a purchaser which is not deductible from his own VAT liability, if any.

1.71 Export Taxes

Export taxes are taxes on goods or services that become payable when the goods leave the economic territory or when the services are delivered to non-residents; they include export duties, profits of export monopolies and taxes resulting from multiple exchange rates.

1.72 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.

1.73 Private Sector

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

1.74 Production Sector

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

1.75 Service Sector

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

1.76 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 approach.

a) **Product approach** is aggregated based on the production accounts. GDP is

Sum of Gross Value Added of all industries (or all economic activities)
Plus Taxes on products
Less Subsidies on products.

b) **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.

c) **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
   NPISHs final consumption expenditure
   Change in inventories
   Gross fixed capital formation
   Export of goods and services
   Less
   Import of goods and services.

Gross Domestic Product of Tanzania is mainly compiled using production and expenditure approaches.

CHAPTER TWO
TAX STATISTICS

2.0 Introduction

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 contributions to state revenue made by a person or body of persons towards workers' income and business profits or added to the cost of some goods, services and transactions expenditure of a public authority.

Tax statistics refers to the data that are related to taxes collected by the authorized institutions in the country. 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. They include income tax, corporate tax, property tax, Pay as You Earn (PAYE), Basic Skills and Development Levy, Individual tax, withholding tax Rental and Gaming tax.

2.1.1 Income Tax

Refers to type of tax governments impose on income generated by businesses and individuals within their jurisdiction. Income tax is used to fund public services, pay government obligations, and provide goods for citizens.

2.1.2 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.

2.1.3 Corporate Tax

It is levied on all the corporate taxable profits, accruing to all companies carrying on business in Tanzania. It is generally applied to a company' operating earnings, after expenses such as Cost of Goods sold (COGS), Selling General and Administrative expenses (SG&A) and depreciation have been deducted from a company revenue.

2.1.4 Individual Income Taxes

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) which is a tax whereby a certain amount of money from employee's gross emoluments is levied.

2.1.5 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.

2.1.6 Gains or Profits from Employment

This is an income that 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.

2.1.7 Qualification of Benefits in Kind

Benefits which an employer may decide to give to the employee. These include: -

a) **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.

b) **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.

c) **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.

2.1.8 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.

2.1.9 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.

2.1.10 Payment of Tax by Installments

- **Single Instalments:** Income tax payable by way of single instalment in the case of realization of interest in land or buildings is the amount of tax paid once before the Titles are transferred from one person to another.
- A rate of 10 and 20 percent of the gain for a resident and non-resident person respectively, is required to pay income tax by single instalment. Payment by single instalment 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 proper vessel, vehicle or aircraft is allowed to leave from Tanzania.

- **Quarterly Instalments:** 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 instalment on the last day of the year of the income.

2.2 Indirect Taxes (Consumption Taxes)

These are taxes based on consumption. Categorically they are divided into consumption taxes, other domestic taxes and international trade taxes. 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. The categories of indirect taxes among others are Value Added Tax (VAT), Excise Duty and Import Duty.

2.2.1 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.

2.2.2 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.

2.2.3 Import Duty

Is levied at fixed rate on the Cost, Insurance and Freight (CIF) value of goods imported into the country. It is based on the value of goods, the weight, dimensions, or other criteria of the item such as its size.

2.3 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. The importation of taxable supply from any place outside Mainland Tanzania shall be charged VAT and normal Customs Laws and procedures shall apply.

2.4 Other Taxes

2.4.1 Skills and Development Levy (SDL)

This tax is based on the total gross emoluments paid by an employer to employees. Among other gross emoluments include salary, wage, leave, pay, payment in lieu of leave and subsistence allowance etc.

2.4.2 Stamp Duty

Refers to the duty paid on certain legal instruments/transactions, affidavit, conveyance and lease Agreements. The duty is based on the consideration applicable on non-

business persons when issuing a receipt whenever they sale their privately owned assets/properties.

2.4.3 Airport Service Charge

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

2.4.4 Port Service Charge

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

2.4.5 Motor Vehicle Registration and Transfer Tax

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

2.4.6 Motor Vehicle License Fee

Refers to fee charged on first registration of a motor vehicle are based on size of the engine. It is not applied to motorcycle or tricycle.

2.5 Tax Incentives

Refers to government measure that is intended to encourage individuals and businesses to spend money or to save money by reducing the amount of tax that they have to pay.

2.5.1 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 includes inputs used in production process that do not form part of the qualified product e.g. catalysts and some other chemical agents.

2.5.2 Withholding Tax on Dividends and Interest

It refers to taxes paid by investors with incentive certificates.

2.5.3 Export Processing Zone (EPZ)

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

2.6 Local Government Taxes

Refers to taxes and fees collected by local government authority such as, 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.

2.6.1 Property Tax

Is an annual or semi-annual charge levied by a local government and paid by the owners of real estate within its jurisdiction. 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.

2.6.2 Service Levy

Refer to a local tax levied on corporate and no corporate entities. It charged on the value of goods manufactured by local industries. It is mainly for urban local authorities and it replaces the industrial levy. All corporate entities, which pay the service levy, are exempted from paying agricultural produce levy.

PART TWO: SOCIAL SERVICES SECTOR
CHAPTER THREE
POPULATION AND DEMOGRAPHIC STATISTICS

3.0 Introduction

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. Also, the 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 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.

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

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.

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

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:

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

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;

$$TFR = n \sum_{X=15}^{49} nf_x = n \sum_{X=15}^{49} \left(\frac{{}_nB_x}{{}_nW_x} \right)$$

Where,

n = Number of children,

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

f_x = Fertility rate at age x,

${}_nB_x$ = Births at age x,

${}_nW_x$ = 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;

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

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

$\sum$ = 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 + ½

$\sum$ = 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.

3.1.8 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.

3.1.9 Fecundity

It is a physiological ability of a woman to conceive.

3.1.10 Sterility

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

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.

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

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:

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

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 populations. For example:

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

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.

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

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.

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

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.

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

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.

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

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.

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

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.

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

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.

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

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.

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

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.

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

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 do 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;

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

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

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

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_o = 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

3.5 Population Growth

Refers to the change in population over time, and can be quantified as the change in the number of individuals in a population using "per unit time" for measurement.

3.5.1 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;

$$\mathrm{GR}_{2022} = \frac{(\text{Births in 2022} - \text{Deaths in 2022}) + \text{Net migration in 2022}}{\text{Total Population in 2022}}$$

3.5.2 Inter-Censual 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

$$\left(\frac{P_t}{P_0}\right) = e^{rt}$$

$$\ln\left(\frac{P_t}{P_0}\right) = \ln\left(e^{rt}\right) = rt$$

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

3.5.3 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.

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

3.6 Population and Housing Census (PHC)

This is the total process of collecting, compiling, evaluating, analyzing and publishing or otherwise disseminating demographic, economic and social data pertaining, at a specified time, to all persons in a country or in a well delineated part of a country.

3.6.1 Census Night

Is the reference night before the day that the actual counting begins.

3.6.2 De facto Methodology

De facto census is the method of enumerating individuals as of where they are found during the census night, regardless of where they normally reside.

3.6.3 3.6.1 De Jure Methodology

De Jure census is the method of enumerating individuals according to their regular and legal residence.

3.6.4 Enumeration Area (EA)

Enumeration Area (EA) can be defined as the smallest spatial unit usually used by an enumerator during census enumeration. Usually EA have an average of 60 to 100 households

3.6.5 Optical Mark Reader (OMR)

Is the process of capturing data by optical scanner by measuring the reflectivity of light at pre-determined positions on a surface.

3.6.6 Post Enumeration Survey (PES)

Is the sample survey conducted within few months after the census for the primary purpose of evaluating the census. It helps in identifying areas of deficiencies that need improvement in subsequent censuses.

3.6.7 Population Density

Refers to number of people living in a given area per square kilometer of land.

3.6.8 Population Share

Refers to the percentage of population of a certain area for example region and district to that of total population of country, or region respectively.

3.7 Age

Age is the number of years one had lived as of his/her last birthday

3.7.1 Median Age

Is the age at which exactly half of the population is older and the other half is younger

3.7.2 Myers' Index

Is calculated for the age above 10 years and shows the excess or deficit of people in ages in any of the ten digits (digits "0" to "9") expressed as percentage. It is based on the assumption that; the population is equally distributed among all ages. The theoretical range of Myers` Index is from 0 to 90, where "0" indicates no preference, while "90" indicates absolute preference.

3.7.3 Population Pyramid

Is a graphical presentation of population's age and sex composition. Horizontal bars present the numbers or percentages of males and females in each age group.

3.7.4 Sex Ratio

Is the ratio of males to females in a given population usually expressed as the number of males for every 100 females.

3.7.5 Sex Ratio Under One Year of Age

Is the ratio of males to females under one year of age in a given population usually expressed as the number of males for every 100 females.

3.7.6 Elderly Population

According to the international definition, elderly is a person aged 65 years and above. However, according to the Tanzania National Ageing Policy, elderly is a person aged 60 years and above.

3.7.7 Age Dependency 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.

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

3.7.8 Working Age Population

Is the population age 15 to 64 years (international definition)

3.7.9 Dependent Age Population

Is the population age 0 to 14 years

3.7.10 Youth Population

Is the population aged 15-24 years (international definition). However, according to Tanzania's Youth Policy, Youth Population is the population aged 15 to 35 years.

3.7.11 Elderly Population

Are a person aged 65 years or above (international definition). However, according to the Tanzania National Ageing Policy, elderly is a person aged 60 years or above.

3.8 Birth Certificate

Is a vital record that documents the birth of a child. The term "birth certificate" can refer to either the original document certifying the circumstances of the birth or to a certified copy of or representation of the ensuing registration of that birth.

3.9 National Identification

Is any official document that may be used to prove a person's identity such as the bearer's full name, birth date, address, an identification number, card number, sex, citizenship and more.

3.10 Marital Status

Refers to a civil status of each individual in relation to the marriage laws or customs of the country i.e Marriage, Divorced Person, Living Together, Never Married, Separated and Widowed.

3.10.1 Living Together

Refers to an act of persons who are not formally married but are in a consensual union or are living in a socially recognized stable unions.

3.10.2 Marriage

Is an act of persons who are living together or separately but are formally married irrespective of the type of marriage, which may be customary, civil or religious marriage.

3.10.3 Mean Age at First Marriage

Is defined as the average length of single life expressed in years among those who marry before age 50.

3.10.4 Never Married

Means persons who have remained single all their lives excluding persons who have lived with another person and are now living alone.

3.10.5 Separated

Is the act of persons who were once married but now are living apart. Those who live apart because their spouses are employed far away from home or for similar reasons are considered to be married.

3.10.6 Widowed

Is the act of persons whose marriages were terminated by death and have not remarried since. Note that in polygamous marriages the death of one or more wives does not make the husband a widower if he still has other wife (wives).

3.10.7 Divorce

Is referred to a final legal dissolution of a marriage that is separation of husband and wife, which confers on the parties the right to remarriage under civil, religious and/or other provisions, according to the laws of each country.

3.10.8 Divorced Persons

Are those persons who were once married but their marriages were permanently terminated and have not remarried since then. Note that in polygamous marriages the divorce of one or more wives do not categorize the husband as divorced if he still lives with the other wife (wives).

3.11 Civil Registration

Is defined as the continuous, permanent and compulsory recording of the occurrence and characteristics of vital events and as provided through decree of regulation in accordance with the legal requirement of each country.

3.12 Vital Event

A Vital event refers to the live birth, death, foetal death, marriage, divorce, adoption, legitimating, recognition of parenthood, annulment of marriage or legal separation.

3.13 Vital Statistics

Vital statistics are information systematically collected and compiled in numerical form, relating to or derived from vital events, that is deaths, births, marriage and divorces.

3.14 Birth

Is the emergence of a baby from the body of its mother, the start of life as physically separate being.

3.14.1 Birth Registration

Is the process by which a child's birth is recorded in the civil register by the Government authority.

3.14.2 Death

Is a permanent disappearance of all evidence of life at any time after live birth has taken place (post-natal cessation of vital functions without capacity of resuscitation). This definition therefore excludes fetal death.

3.14.3 Death Registration

Is the process by which deaths is recorded in the civil register by the Government authority.

3.14.4 Divorce registration

Is the process by which death is recorded in the civil register by the Government authority

3.15 Diaspora

Are citizens living outside the country.

3.16 Household

Refers to a person or group of persons who reside in the same homestead or compound, but not necessarily in the same dwelling unit, having same cooking arrangements and are answerable to the same household head.

3.16.1 Head of Household

Is a member of the household who holds the role of decision maker in that household. Other normally recognize this individual as their head. In most cases the household head should take part in the economy, control the welfare of the household in general.

3.16.2 Collective Households

For census purpose, refer as collective household is a group of persons residing in one dwelling or compound having no head of household. Boarding schools, hospitals and camps are examples of collective households.

3.16.3 Private (conventional) Household

For census purposes, a private household is a household comprising head of household and other member(s) of household. It can also be a household of one person.

3.16.4 Household size

This is the number of persons who usually live in the household including boarders and servants.

3.16.5 Average Household Size

Refer to average number of persons per private household. It is obtained by dividing a total number of persons living in private households to the total number of private households.

CHAPTER FOUR
EDUCATION STATISTICS

4.0 Introduction

The concepts and definitions in education statistics are fundamental to ensuring that data is accurate, reliable, and meaningful. Clear and consistent definitions of education concepts allow for standardized measurement across different regions and time periods. This consistency is crucial for comparing educational indicators globally and for tracking progress over time. By understanding these concepts, policymakers, educators, and researchers can interpret data correctly, avoid misinterpretations, and make informed decisions that reflect the true state of education. The concepts defined in this chapter includes types of education, education system, literacy, numeracy, gender parity.

4.1 Education

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

4.1.1 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

4.1.2 Non-Formal Education

Non-Formal Education refers to provision of education out of school children aged 11 to 18 years outside the formal education system. The main programme offered is Complimentary Basic Education in Tanzania (COBET) whose cycle ranges from 2 to 3 years.

4.1.3 Informal Education

Refers to any organized and sustained educational activities that do not follow any approved curriculum. Informal education can take many forms, such as learning from family members, engaging in hobbies, participating in community events, watching educational videos online, or exploring topics independently.

4.1.4 Pre-primary Education

Pre-Primary Education is a formal education system which lasts for 1 to 2 years with no examinations for promotion purpose. Pre-Primary Education is established for the

purpose of preparing children to join standard one for effective knowledge in writing, reading and arithmetic skills (3Rs).

4.1.5 Primary Education

According to the Education and Training Policy 2014 (version 2023). Primary Education is a six years' education cycle after one year of Pre-Primary Education. It is universal, compulsory and free to all children aged 6 to 12 years old. The Primary School cycle begins with standard one (STD I), on entry, and ends with standard six (STD VI) in the final year of the cycle. Primary education grades can be modified according to policy changes.

4.1.6 Secondary Education

The formal secondary education consists of two sequential cycles. The first cycle is a four-year program of Ordinary Level (O-Level) secondary education. The second cycle is a two-year program of Advanced Level (A Level) secondary education.

4.1.7 Adult Education

Adult Education caters for people aged 19 and above. The main program offered includes Integrated Community Based Adult Education (ICBAE) which includes basic and post literacy with components of Extension services, Income Generating Activities, Vocational Training and Non-Formal Secondary education offered through Open and Distance Learning (ODL) modes

4.1.8 Teacher Education

Teacher education is offered through a certificate, diploma and degree levels. The entry requirement for joining the certificate of teacher education training is the CSEE, while joining the diploma and degree teacher training program requires an ACSEE. Programs of Certificate and Diploma levels lasts for two years, and successful trainees are awarded a Grade-A and Diploma in Education Certificates respectively. At Degree level, the programme lasts for Three years, and a successful graduate awarded a Bachelor Degree in Education.

4.1.9 Folk Education

Non-formal education programme offered through community-based folk development colleges (FDCs) that focus on employment, participation in community social and economic affairs and self-reliance. The programme is open-access, for learners of any age or level of academic achievement. Courses are offered in short-term (up to 90 days), long-term (up to two years) and outreach.

4.1.10 Vocational Education

Refers to training on knowledge and competence of manual works. This type of education It helps to prepares people for a skilled craft as an artisan, trade as a tradesperson, or work as a technician, which enhance an individual to be gainfully employed or self -employed with required skills.

4.1.11 Technical Education

Education that provides alternative educational and training opportunities available after ordinary secondary (O-Level) and advanced secondary (A Level) education levels, which lead to careers as skilled workers, technicians and professionals who are able to work in different sectors of the economy.

4.1.12 School Quality Assurance

Division under MoEST with the objective of ensuring compliance to policies, laws, regulation and standard setting instruments in the delivery of pre-primary, primary and secondary education including Teacher, Focal Development, Special Needs, Centre's and adult and Non-Formal education at those levels.

4.1.13 Higher Education

This is the highest level of education and training in the country, covering bachelors, postgraduate certificate, postgraduate diploma, master degrees, and doctoral degree programs offered in public and private universities. For admission to study the undergraduate programs in the university; a prospective student requires an advanced certificate of secondary education or Equivalent qualifications. Undergraduate programs generally last for a minimum of 3 years and Master degree for a minimum of 2 years, whilst a doctoral degree, programs last for a minimum of 3 year.

4.2 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.

4.2.1 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.

4.2.2 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.

4.2.3 Adult Literacy

The percentage of population aged 15 years and above who can both read and write with understanding a short simple statement on his/her everyday life.

4.2.4 Number of Adult Illiterates

The population aged 15 years and above who cannot both read and write with understanding a short simple statement on their everyday life.

4.3 Numeracy

Numeracy is the ability to access, use, interpret and communicate simple mathematical information and ideas, to engage in and manage mathematical demands for a range of situations in adult life.

4.3.1 Numeracy Rate

Is the percentage of a population who has ability to access, use, interpret and communicate simple mathematical information and ideas.

4.4 School Attendance

Refers to attendance at any regular authorized or licensed educational institution or programme for organized learning at any level of education at the time of the census or surveys.

4.5 Educational Attainment

Is the highest grade completed according to the country's educational system. A grade is a stage of instruction usually covered in the course of a school year.

4.6 Educational System

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

4.6.1 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.

4.6.2 Universal Primary Education (UPE)

Means full enrolment of all children in the primary school – age group 6-12 that is 100 percent Net enrolment Ratio.

4.6.3 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.

4.6.4 Grade

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

4.6.5 Pupil

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

4.6.6 Student

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

4.6.7 Graduate

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

4.6.8 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.

4.6.9 Full-time Teacher

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

4.6.10 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.

4.6.11 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

$\sum$ = Sum

4.7 Enrolment

Refer to process of act of putting or registering someone to the official list or a class and officially being a student.

4.7.1 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. School age is usually determined by education policy.

4.7.2 Gross Enrolment Ratio (GER)

Total number of pupils/students enrolled in a given level of education, regardless of age expressed as a percentage of the corresponding school-age population.

Example for primary education;

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

4.7.3 Primary School Gross Enrolment Ratio

The total number of children enrolled in primary school that is in classes I-VI, regardless of age, expressed as a percentage of the total number of children in the relevant age - group for primary school education, which is 6-12 years age - group. Example for primary education;

$$GER = \frac{Total\ Pupils\ (enrolled\ in\ grage\ 1 - VI)\ x\ 100}{Total\ children\ 6 - 12\ old\ years}$$

4.7.4 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 13-16 years age - group.

4.7.5 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 13-16 years age group.

4.7.6 Net Enrolment Ratio (NER)

School age pupils/students enrolled in a given level of education expressed as a percentage of corresponding school-age population. Primary age group is 6-12 years old.

$$NER = \frac{\text{Grade 1 – VI pupils aged 6 – 12 years}}{\text{Total 6 – 12 old years}} \times 100$$

4.7.7 Age Specific Enrolment Rate (ASER)

Enrolment of a specific single age enrolled, irrespective of the level of education, as a percentage of the population of the same age.

4.7.8 Percentage of Private Enrolment

Enrolment in private educational institutions at a given level of education expressed as a percentage of total enrolment at the same level.

4.7.9 Mean Age Enrolment for Primary School

It is the average age of enrolment in Primary schools.

4.7.10 Net Intake Rate (NIR)

New entrants in the first grade of pre-primary or primary education who are of official school-entrance age expressed as a percentage of the official school entrance age population.

4.7.11 Drop-out Rate (DR)

Refer as a proportion of pupils/students enrolled in a given grade in given school year who are no longer enrolled in the following school year.

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

4.7.12 Out-of-School Children-Primary (OOS)

Children in the official primary school age range who are not enrolled in either primary or secondary schools.

4.7.13 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.

4.7.14 Promotion Rate

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

$$PR = \frac{Promoted\ to\ a\ grade\ in\ Year\ N+1}{Enrolment\ in\ that\ Grade\ in\ year\ N} x100$$

4.7.15 Survival Rate (SR)

Refers to the percentage of a cohort of pupils (or students) enrolled in the first grade of a given level or cycle of education in a given school year who are expected to reach successive grades

4.7.16 Completion Rate (CR)

Number of pupils/students enrolled in a final grade of a given level of education expressed as percentage of school-age population of that grade.

4.7.17 Pass Rate (PR)

Number of pupils/students who passed an exam expressed as percentage of total candidates who sat for the examination

4.7.18 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.

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

4.7.19 Pupil/Student Book Ratio (PBR)

Average number of pupils/students per book.

4.7.20 Pupil/Student Qualified Teacher Ratio (PQTR)

This refers as an Average number of pupils/students per qualified teacher in a given level of education.

4.7.21 Pupil/Teacher Ratio (Primary School)

Number of primary school pupils per teacher.

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

4.7.22 Student/Teacher Ratio (Secondary School)

Number of secondary school students per teacher.

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

4.7.23 Teacher Attrition Rate

Proportion of teachers who leave the teaching career in a given year.

4.7.24 Percentage of New Entrants into Primary schools with Pre-Primary Education

New entrants into primary schools who have attended pre-primary education expressed as percentage of all new entrants.

4.7.25 Percentage of Tutors in Teachers' Colleges with Relevant Qualifications

Tutors in Teachers' Colleges who have relevant university degrees or diplomas expressed as percentage of all tutors.

4.8 Gender Parity Index (GPI)

Ratio of females to males, that is, the number of females divided by males.

4.8.1 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.

4.8.2 Percentage of Female Students

Number of female students expressed as percentage of total number of students.

4.8.3 Percentage Distribution of Teaching Staff by qualification and sex

Distribution of teachers by qualification expressed as percentage of all teachers.

4.8.4 Percent of Trainees by Type of VET Program

Number of VET trainees by type of VET programme expressed as percent of total trainees.

4.8.5 Percentage of Female Students Enrolled in Technical and Higher Learning institutions by Award and Field of Study.

Number of female students enrolled in Technical and Higher Learning institutions expressed as percentage of total enrolment by Award and Fild of Study.

4.8.6 Percentage of Students Studying Abroad by Field of Study

Number of students studying abroad by field of study expressed as percentage of all students studying abroad.

4.8.7 Percent Distribution of Higher Education Students provided with Loans by sex

Number of higher education students provided with loans expressed as percentage of students by sex.

4.8.8 Percentage of Female Teachers

The number of female teachers at a given level of education expressed as a percentage of the total number of teachers (male and female) at the same level in a given school year.

4.8.9 Percentage of Teaching Staff in Private Educational Institution

Number of teachers in private educational institutions at a given level of education expressed as a percentage of the total teaching staff in all types of institutions at the same level of education.

CHAPTER FIVE
HEALTH STATISTICS

5.0 Introduction

Health is a state of physical, social and mental well-being: it is not the absence of disease or infirmity. Health status statistics 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 statistics concepts and definitions are essential for ensuring accurate data collection, analysis, and interpretation, which are vital for effective public health decision-making. Clear definitions of concepts allow for consistent measurement of health trends across different populations and time periods. These standardized definitions help healthcare providers, researchers, and policymakers accurately assess health conditions, identify emerging health issues, and allocate resources where they are most needed. Ultimately, a solid understanding of health statistics concepts enables better monitoring of public health, supports informed policy decisions, and promotes the overall well-being of communities.

Health and medical statistics incorporate a variety of data types. The most common statistics reported are family planning, antenatal care, anthropometric measurements, morbidity, mortality of health care facilities and hospital beds

5.1 Morbidity

Morbidity refers to the state of being diseased or the incidence of disease within a population. It encompasses the prevalence, severity, and impact of illnesses or diseases on individuals or communities. 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.

5.2 Disease Incidence

The rate of new cases of a disease or condition occurring within a population during a specified period of time.

5.3 Disease Prevalence

Measures all cases of the disease existing at a point in time.
Alternatively: $Prevalence = Incidence \times Average\ duration$

5.4 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.

5.5 Sanitation

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

5.6 Family Planning

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

5.6.1 Contraceptive

Methods of contraception include oral contraceptive pills, implants, injectables, patches, vaginal rings, intra uterine devices, condoms, male and female sterilization, lactational amenorrhea methods, withdrawal and fertility awareness-based methods

5.6.2 Contraceptive Prevalence Rate.

Refers to number of contraceptive active users divided by number of women of child bearing age.

5.7 Antenatal Care

Antenatal care, also known as prenatal care, refers to the healthcare services and support provided to pregnant women to monitor and promote their health and the well-being of their unborn babies during pregnancy. Antenatal care typically begins soon after a woman confirms her pregnancy and continues until childbirth.

5.7.1 Proportion of Births Attended in Health Facility

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

5.7.2 Proportion of Births Attended by Skilled Health Personnel

Refers to number of deliveries conducted by skilled health personnel divided by projected number of births. These childbirths are attended by healthcare professionals who have been trained to manage normal deliveries and identify and manage complications that may arise during labor and childbirth. Skilled attendants typically include doctors, midwives, nurses, and other trained healthcare providers.

5.8 Trachoma

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

5.9 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.

5.10 Diagnosis

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

5.11 Impairment

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

5.12 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 number of activities a person can do due to long-term physical condition, mental condition or health problem.

5.12.1 People with Disabilities:

Can be defined as Persons with physical, intellectual, sensory or mental impairment and whose functional capacity is limited by encountering attitudinal, environmental and institutional barriers.

5.12.2 Washington Group questions set for disabilities

The WG questions sets are designed to provide comparable data for person with d cross-nationally for populations living in a variety of cultures with varying economic resources.

Covers six functional domains: seeing, hearing, walking, cognition, self-care, and communication. Each question has four response categories: (1) No, no difficulty, (2) Yes, some difficulty, (3) Yes, a lot of difficulty and (4) Cannot do it at all. Scaled responses begin to describe the continuum of functioning from mild to severe.

5.12.3 Technical Devices:

Assistive Devices are those assistance be a person or equipment that supports a person with disability to work in same pace as a non-disabled person e.g Sign Language interpreter; Wheel Chairs, Visual Aids (Glasses, Braille and White Cane).

5.13 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.

5.14 Rehabilitation

Means combined efforts in the domain of health, education, vocational training, psychology, public awareness and work including community-based rehabilitation intended to raise functional level of a person with disability so as to enable him, take part in the normal life of the community.

5.15 Settlements

A public building established for the purpose of providing welfare requirements of the needy persons with disabilities.

5.16 Social Protection

Means family or community support structures, and interventions by state or non state actors that support individuals, households and communities to prevent manage, overcome the risks threatening their security and well-being.

5.17 Social Support

Means a support or assistance given to a person with disability in order to help that person to cope with his situation in a given environment.

5.18 Psychosocial Support

Is an approach to victims of disaster, catastrophe or violence to foster resilience of communities and individuals. It aims at easing resumption of normal life; facilitate effected people participation to their convalescence and preventing pathological consequences or potentially traumatic situations.

5.19 Orphan

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

5.19.1 Maternal Orphan

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

5.19.2 Paternal Orphan

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

5.20 Doctor Patient Ratio

The doctor-patient ratio refers to the number of doctors available to serve a given population. It's an important metric in assessing healthcare accessibility and quality.

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

5.21 Nurse Patient Ratio

The nurse-patient ratio is a critical factor in determining the quality of patient care in healthcare settings. It refers to the number of patients assigned to each nurse during a particular shift or time period.

5.22 Outpatient Attendance Ratio.

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

5.23 Pharmacist Patient Ratio

Refers to number of people served by one pharmacist

5.24 Nurse Midwife Patient Ratio

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

5.25 Hospital Bed

Refers to bed specially designed for hospitalized patient or others in need or some form of health care.

- **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.

5.25.1 General Ward Bed

This is a standard bed used in general wards for patients who do not require specialized care, usually come with basic features like adjustable height and sometimes have side rails for patient safety.

5.25.2 Intensive Care Unit (ICU) Bed

ICU bed is designed for critically ill patients who require close monitoring and intensive medical care. Often has advanced features such as cardiac monitoring, respiratory support, and may be equipped with attachments for medical devices like ventilators.

5.25.3 Pediatric Beds

These beds are specifically designed for infants and children, taking into account their smaller size and unique needs. They may come with features like side rails and colourful designs to create a child-friendly environment.

5.25.4 Maternity Beds

Maternity beds are designed for pregnant women during labor, delivery, and postpartum recovery. They often have adjustable positions to accommodate different stages of childbirth and may include features for comfort and support.

5.25.5 Orthopedic Beds

These beds are designed for patients with orthopaedic conditions or those recovering from orthopaedic surgeries. They may feature specialized mattresses and positioning options to support proper alignment and healing.

5.25.6 Psychiatric Beds

Psychiatric beds are designed to meet the specific needs of patients with mental health conditions. They often have features to prevent self-harm, such as padded surfaces and tamper-resistant components.

5.25.7 Rehabilitation Beds

Rehabilitation beds are used for patients undergoing physical therapy or rehabilitation. They may have features like adjustable height and positioning to support mobility and therapy exercises.

5.25.8 Hospital Bed Density

Hospital bed density refers to the number of hospital beds available per 10,000 population within a specific geographical area.

5.26 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:

5.26.1 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.

5.26.2 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 diarrhoea, 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.

5.26.3 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.

5.27 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. 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 Categories:

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

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

5.28 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.

5.28.1 Anemia Prevalence in Women of Reproductive Age

Percentage of women aged 15−49 years with a hemoglobin concentration less than 120 g/L for non-pregnant women and lactating women, and less than 110 g/L for pregnant women, adjusted for altitude and smoking.

5.29 Low Birth Weight

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

5.30 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.

5.31 Surveillance

Surveillance is the monitoring of the behavior, activities, or other changing information, usually of people for the purpose of influencing, managing, directing, or protecting them.

5.32 Curative Services

Curative care refers to treatment and therapies provided to a patient with an intent to improve symptoms and cure the patient's medical problem. Examples of curative care are like antibiotics, chemotherapy and a cast for a broken limb.

5.33 Preventive Services

Routine health care that includes check-ups, patient counselling and screenings to prevent illness, disease and other health-related problems

5.34 Adoption

Is a process whereby a person assumes the parenting of another, usually a child, from that person's biological or legal parent or parents, and, in so doing, permanently transfers all rights and responsibilities, along with affiliation, from the biological parent or parents.

5.35 Most Vulnerable Children

Are children under the age of 18 years falling under extreme condition characterized by severe deprivation as to endanger their health; well-being and long term development like those who live in a house with chronically ill parent; Maternal Orphan, Paternal Orphan; Stigmatized; marginalized or discriminated; child without both parents; abandoned child; child forced to work; child in harassment situation; children living institutional care; children born in prison, children with Disabilities; early childhood bearing; street children and those living in child headed households.

5.36 Male Circumcision

Procedure that removes the foreskin from the human penis. In the most common form of the operation, the foreskin is extended with forceps, then a circumcision device may be placed, after which the foreskin is excised.

5.37 Perinatal Deaths

Perinatal deaths refer to the loss of a baby either through stillbirth (occurring after 20 weeks of pregnancy but before birth) or within the first week after birth (neonatal death). They can occur due to various factors including congenital anomalies, complications during pregnancy or childbirth, infections, and other medical conditions affecting the mother or baby.

5.37.1 Rate of Perinatal Deaths

The rate of perinatal deaths (stillbirths, deaths within the first seven days of life) per 1000 live births. It is a crucial indicator that can be calculated and reported within short time.

5.38 Adolescent Birth

Adolescent birth refers to the event of a childbirth or delivery experienced by a young person, typically between the ages of 10 and 19. These births are commonly referred to as "teenage pregnancies" or "teen births."

5.38.1 Adolescent Fertility Rate

The adolescent fertility rate, also known as the teenage fertility rate or adolescent birth rate, refers to the number of live births per 1,000 women aged 15 to 19 within a given population over a specific period, usually a year.

5.38.2 Stillbirth Rate

Stillbirth rate refers to the number of stillbirths (fetal deaths that occur after 20 weeks of gestation or at a birth weight of 500 grams or more) per 1,000 total births within a specified population during a given period of time, typically expressed as a rate per 1,000 live births plus stillbirth.

5.38.3 Exclusive Breastfeeding Rate

The exclusive breastfeeding rate refers to the percentage of infants who are exclusively breastfed for the first six months of life, without any additional food or drink except for vitamins, minerals, and medications as prescribed by healthcare providers.

5.39 HIV Incidence

In general, HIV incidence is expressed as the estimated number of persons newly infected with HIV during a specified time period (e.g., a year), or as a rate calculated by dividing the estimated number of persons newly infected with HIV during a specified time period by the number of persons at risk for HIV infection.

It is important to understand the difference between HIV incidence and new diagnoses of HIV infection. HIV incidence refers to persons newly infected with HIV, whereas individuals newly diagnosed with HIV may have been infected years before being diagnosed.

5.40 HIV Prevalence

The number of persons living with HIV disease at a given time regardless of the time of infection, whether the person has received a diagnosis (aware of infection), or the stage of HIV disease. Although prevalence does not indicate how long a person has had a disease.

5.41 Prevention of Mother-to-Child Transmission (PMTCT)

Refers to service provided to HIV-positive pregnant women with antiretroviral therapy (ART) to reduce the risk of mother-to-child transmission during pregnancy. An effective PMTCT

programme requires mothers and their babies to receive antenatal services and HIV testing during pregnancy.

5.42 Antiretroviral Therapy (ART)

Antiretroviral therapy (ART) is treatment of people infected with human immunodeficiency virus (HIV) using anti-HIV drugs.

5.43 HIV Viral Load Suppression

Refers to the situation where people on ART are virologically suppressed (VL level ≤ 1000 copies/mL).

5.44 Sexually Transmitted Infections (STIs)

Refers to infections or conditions that you can get from any kind of sexual activity.

5.44.1 Sexually Transmitted Infections (STIs) Incidence Rate

Number of new cases of reported STIs (syndromic or etiological reporting) in a specified time period (year).

5.45 Health Care Facility

Refers to means an institution providing care or treatment of diseases whether physical, mental or emotional or other medical physiological, psychological condition including dispensary, health centre, hospital and referral hospitals.

5.46 Primary Health Care

Primary Health Care (PHC) is a fundamental approach to healthcare that focuses on providing essential and accessible healthcare services to individuals and communities. It is considered the cornerstone of healthcare systems worldwide. Examples of primary health care are dispensary, maternity home and clinic.

5.46.1 Dispensaries

Dispensaries are the lowest level of the public health system and provide the first point of contact with patients. They are staffed by enrolled nurses/maternal and child health aides, public health technicians, and health orderlies. The enrolled nurses provide maternal and child health care, treat simple medical problems during pregnancy such as anaemia, conduct normal deliveries, and provide basic outpatient curative care.

5.46.2 Private Clinics and Maternity Homes

These are health services provision units that focus on mostly one or just few services. Some of these are attached to a hospital and some are stand alone.

5.47 Secondary Health Care

Secondary Health Care is the specialist treatment and support provided by doctors and other health professionals for patients who have been referred to them for specific expert care, most often provided in hospitals.

5.47.1 Health Center

Health centers are staffed by clinical officers and midwives or nurses. They provide a wider range of services, including basic curative and preventive services for adults and children, reproductive health services, and minor surgical services, such as incisions and drainage. Health centers augment their coverage with outreach services and refer severe and complicated conditions to the appropriate level.

5.47.2 Tertiary

Hospitals represent the top end of a continuum of care. They play an important complimentary role to primary care and constitute an important and integral part of any national health system. As far as the hospital concern, is categorized into different levels which is district hospitals, regional referral hospitals, zonal referral hospital, specialized hospital, national hospital.

5.47.3 District Hospitals

District hospitals offer outpatient and inpatient services at a higher level than dispensaries and health centers. They offer diagnostic services based on laboratory testing and radiology and surgical services, including emergency obstetric care. District hospitals form the first level of referral hospitals and, as such, are an integral part of the district health system.

5.48 Regional Referral Hospitals

Regional Hospital offer similar services like those agreed at district level, however regional hospitals have specialists in various fields and offer additional services which are not provided at district hospitals. These hospitals offer a secondary level of health care to a well-defined geographic area. They provide specialized care that requires skills and competences not available at district hospitals, which makes them the next level of the referral system. Their personnel include general surgeons, general medical physicians, pediatricians, general and specialized nurses, midwives, and public health staff. Regional hospitals form an integral part of the regional health system.

5.48.1 Zonal Referral Hospital,

Referral hospitals are centers of excellence that provide complex health care requiring advanced technology and highly skilled personnel. They have a high concentration of resources and support pre-service and in-service training of health workers. The main referral and teaching hospitals in Tanzania are Kilimanjaro Christian Medical Centre

(KCMC), Bugando Medical Centre, Benjamini Mkapa Hospital and Mbeya Referral Hospital.

5.48.2 Specialized Hospital,

Is an institution in which medical specialist help and nursing care is on offer for a particular illness or affliction or to people in a certain group. Examples of the specialized hospital in Tanzania are; Ocean Road Cancer Institute Hospital, Mirembe Referral Hospital, Kibong'oto TB Hospital, and the Muhimbili Orthopaedic Institute Hospital.

5.48.3 National Hospital.

This is the highest level of health care facility in the country offering the most specialized and advanced care. It provides the most comprehensive and specialized services including advanced diagnostic treatment and research. This hospital also serves as training center for health care professionals, staffed by highest number of specialized medical professional including professors, consultants, specialists and high trained nursing and technical staff.

CHAPTER SIX
LABOUR AND PRICE STATISTICS

6.0 Introduction

Labour statistics these are statistics are concerned with economic activity of the population and are collected through censuses, administrative data and surveys such as labour force and establishment.

6.1 Economic Activities

Covers all market production and certain types of non-market productions, including production and processing of primary products for own consumption, own account construction (owner occupied dwellings) and other production of fixed assets for own use. It does not cover unpaid production of services for own consumption, such as housework and care of other household members as defined by the SNA 2008.

6.1.1 Economically Active Population

Comprise all persons above a specified age (usually 15 years or above) who were either workings or actively looking for work and available. They include both the employed and unemployed persons.

There are two approaches used to measure the economically active population namely **currently** and **usually** economically active population. The **currently economically active population** is measured in terms of a short reference period such as **one week or one day**. **The usually economically active population** is measured in terms of a longer reference period, such as a year.

6.2 Employment

According to the international definition, the employed population includes all persons above a specified age (usually 15 years or above) who did some work (for one hour or more) in the reference period either for pay in cash or in kind (paid employees) or who were in self-employment for profit or family gain, including people who are temporarily absent from their work. Self-employment includes persons working on their own farms or doing any other income generating activities. Unpaid family workers in family businesses are included in the category of employed persons.

6.2.1 Main and Secondary Activity

Main activity refers to an activity that an employee spends most of the time in case a person has more than one activity, while the other activity is categorised as a secondary activity.

6.2.2 Temporary Absences from Employment

Refers to persons who did not work in the reference period but have a work from which they are temporarily absent and they keep a strong attachment to the job and there is a definite expectation that they will return to it.

6.2.3 Status in Employment

A state of a person currently having an employment can be categorized as follows;

6.2.4 Paid Employees

Are persons who perform work for a wage or salary in cash or kind. It includes permanent, temporary and casual paid employees.

6.2.5 The Self-Employed (non-agriculture)

Are persons who perform work for profit or family gain in their own non-agricultural enterprise. This includes small and large business persons working on their own enterprises. The category is sub-divided into those with employees and those without employees.

6.2.6 Unpaid Family Helpers (Non-Agriculture)

Are persons working completely without payment in cash or kind in family enterprises other than in the family farm.

6.2.7 Agricultural Workers

Are persons working on their own farms either in crop growing, forestry, livestock or fishing as either self-employed persons or as unpaid family helpers

6.2.8 Regular Employee

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

6.2.9 Casual Workers

Are 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 period.

6.3 Unemployment

Internationally, a person is classified as unemployed if that person meets all the following three conditions during a specified period (usually one week), that is:

a. without work,

b. available for work, and
c. seeking work (had taken specific steps in a specified period to seek paid employment or self-employment).

This type of unemployment is termed as **Strict International Definition**.

Relaxed International definition of unemployment allows the relaxation of condition (c) above, i.e. seeking work, especially in countries where a large proportion of the population is engaged in agriculture and informal activities with generally low knowledge of labour market developments in the rest of the economy.

The **national definition of unemployment** is a situation where individuals who are of working age are willing to work, actively seeking employment but are un able to find any work.

6.3.1 Discouraged Workers

The discouraged workers are persons who are without work and available for work but did not seek work because they felt that no work would be available to them. These are those who have given up any hope of finding work for reasons such as lack of proper qualifications, no suitable work is available or does not know where or how to look for work.

6.4 Underemployment

Underemployment reflects underutilisation of the productive capacity of the employed population. It refers to persons whose actual hours of work were less than 40 per week due to economic reasons if he/she indicated to be availability for more work.

6.4.1 The Economically Inactive (not in the labour force)

These are persons who were neither employed nor unemployed in the reference period. This includes persons doing solely unpaid domestic work in their own houses; those engaged in full time studies and persons not working because they were sick, retired or did not want to work.

6.4.2 Usual Activity

The usually employed refer to persons who were usually economically active and spent six or more months working. The usually unemployed refer to persons who spent six or more months not working but available for work. The usually economically inactive refer to persons who did not work and were not available for work for more than six months.

6.4.3 Informal Sector

Informal sector comprises all units/enterprises that are engaged in production of goods or services aiming at generating employment and incomes for persons concerned. The characteristics of informal sector includes private unincorporated enterprises owned by individuals or households; they are not registered; all or at least some of the goods or services produced are meant for sale or barter; their employment size is less than 5 employees and they are engaged in non-agricultural activities.

6.5 Informal Employment

Informal employment refers to jobs that generally lack basic social or legal protections or employment benefits and may be found in informal sector, formal sector enterprises or households.

6.6 Vulnerable Workers

The vulnerable workers include contributing family and own account workers. These two status groups are considered as vulnerable because such workers are unlikely to have formal employment arrangements or access to benefits or social protection programmes, and they are more at risk to the effects of economic cycles.

6.7 Child Labour

Child labour is a work which is hazardous or is likely to be harmful to the child's health and development and that affect the child's attendance at school, participation in vocational orientation or training programmes approved by the competent authority or the child's capacity to benefit from the instruction received.

6.8 Price Statistics

Price statistics refer to the collection, analysis, and interpretation of data related to the prices of goods and services in a specific market or economy over time. These statistics are typically used to understand trends in inflation, deflation, or price stability, and they are essential for economic planning and policy-making.

6.8.1 Consumer Price Index (CPI)

Consumer Price Index (CPI) is an index that measures the rate at which the prices of a fixed basket of goods and services that are commonly purchased and consumed by a representative sample of private households are changing over a period of time (Monthly, quarterly or annually).

6.8.2 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.

6.8.3 Laspeyres Price Index

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

6.8.4 Paasche Price Index

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

6.8.5 Harmonized Consumer Price Index (HCPI)

Consumer price index developed from concepts, definitions and methods that are comparable by Member State (SADC, EAC etc.)

6.8.6 Price Relative

Ratio of a single price at a given point in time to the corresponding price in the previous period

6.9 Inflation

Inflation is defined as a sustained increase in the general level of prices for goods and services over a period of time. Several variations on Inflation are;

- Deflation which is when the general level of prices is falling.
- Hyperinflation is when unusually rapid inflation. In an extreme case, this can lead to the breakdown of a nation`s monetary system.
- Stagflation that is the combination of high unemployment and economic stagnation with inflation.

6.9.1 Inflation rate

Inflation rate is the percentage change in the CPI between any two periods whether based on monthly, annual or any other time period.

6.10 Base Period

Is a point in time used as a reference point for comparison with some later period.

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6.11 Basket of Goods and Services

Refers to a sample of goods and services that are commonly purchased by persons including all expenditure groups and households in the country.

6.12 A Representative Item

Is an item that has been selected to represent the consumption pattern in the basket of selected items in the Consumer Price Index. This should be an item that has the largest share of consumption compared to the items of the same type.

6.13 Brand

Is the trade name of the item which may be the manufacturer's name or the name that the item. Note that the same brand name may be used for different items.

6.14 An Outlet

Are places where goods and services are sold to the final consumers.

6.15 Consumption

Is any activity in which households use goods and/or services to satisfy their needs and wants but not for business purposes nor for the acquisition of wealth. Thus, investment in all forms of assets is excluded.

6.16 An item variety

Is the description and specification of the representative item to be priced. The item name may be too broad. The variety includes specification of quality, kind, style, size quantity and the brand name. Take special note that item variety means the full item specification. For example;

Representative item	: Maize,
Item variety Specification	: 5kg, white
Brand	: Red Seal

6.17 Basket of Consumer Goods and Services

Basket of consumer goods and services refers to list of goods and services derived from household budget survey that are commonly consumed by private households.

6.18 Reference Population for CPI

Refers to the group of households included in the scope of a CPI. The reference population for the CPI is all private resident households from all socio-economic groups.

6.19 CPI Weight

CPI Weights represent the share of monetary expenditures on goods and services in the overall monetary consumer expenditures in the household in a specific period. It measures the importance attached to an item or group of items in the basket of goods and services.

6.19.1 Weight Reference Period for CPI

The weight reference period refers to the time period to which the expenditure data used to estimate weights was collected.

6.19.2 Price Reference Period

The period that provides the prices with which the prices in other periods are compared. The prices of the price reference period appear in the denominators of the price relatives, or price ratios, used to calculate the index.

6.19.3 Index Reference Period

Index reference period is the period for which the index is set to 100.0.

6.19.4 Elementary Aggregates

The smallest aggregate for which expenditure data are available and used for CPI purposes. The values of the elementary aggregates are used to weight the price indices for elementary aggregates to obtain higher-level indices.

CHAPTER SEVEN
POVERTY AND WELFARE STATISTICS

7.0 Introduction

Poverty and welfare statistics provide essential insights into the living conditions of individuals and families in an economy, helping to assess the extent of poverty and the effectiveness of social welfare programs. These statistics typically measure the percentage of the population living below a defined poverty line, which is often based on income levels that are insufficient to meet basic needs such as food, shelter, and healthcare. Welfare statistics, on the other hand, track the distribution and utilization of government assistance programs aimed at reducing poverty, such as unemployment benefits, food assistance, and housing support. By analyzing these statistics, policymakers can identify vulnerable populations, monitor the impact of poverty alleviation measures, and adjust welfare policies to improve living standards for those in need. These standardized definitions help the Government, researchers, and policymakers accurately assess poverty status and allocate resources where they are most needed..

7.1 Poverty

Poverty refers to an assessment of the basic costs of a minimum standard of living in a particular society and measures the number of households and/or the proportion of the population that are deemed not to be able to meet these basic needs. Poverty statistics tries to identify within each society who are the poor, where they live and what are the characteristics that set these poor households apart from those that are better-off.

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, and man-made calamities such as wars.

7.2 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.

7.2.1 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.

7.2.2 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.

7.2.3 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.

7.2.4 Poverty Gap Index (PGI)

This is a measure of the depth/intensity of poverty. Poverty gap index is an improvement over the poverty measure headcount ratio which simply counts all the people below the poverty line in a given population and considers them equally poor.

Poverty gap index (PGI) is calculated as: $PGI = \sum_{i=1}^{n} \left(\frac{z - y_i}{N} \right)$

Where: N is the total population, n is the total population of poor who are living at or below the poverty line, z is the poverty line, and yi is the consumption of the poor individual

7.2.5 Depth of Poverty (Poverty Gap).

This provides information regarding how far off households are from the poverty line. This measure captures the mean aggregate income or consumption shortfall relative to the poverty line across the whole population.

7.2.6 Squared Poverty Gap Index (SPGI)

This is a measure of the severity of poverty being experienced by a population or subpopulation. Squared poverty gap is related to poverty gap index but it's calculated by averaging the square of the poverty gap ratio; by squaring each poverty gap data, the measure puts more weights the further poor persons observed income falls below the poverty line. The squared poverty gap index is one form of a weighted sum of poverty gaps, with the weight proportionate to the poverty gap. Poverty severity (squared

poverty gap) takes into account not only the distance separating the poor from the poverty line.

7.2.7 Gini Coefficient and Quintile Ratios:

The Gini Co-efficient and Quintile ratios are the most common indices or indicators used to measure the depth of inequality (by per capita income) of a distribution.

7.2.8 The Gini Co-efficient

Is the measure of inequalities among the population. It refers to the extent to which income is distributed in an uneven manner among the population and ranges from 0 (every person has the same consumption) to 1 (one person has all of the consumption in the country). It is defined as the ratio between the area demarcated by the diagonal and the Lorenz curve and the triangular region underneath the diagonal of the Lorenz plot.

7.2.9 The Quintile Ratio

Is a ratio of consumption of the richest 90 percent to consumption of the poorest 10 percent.

7.2.10 Relative Poverty Lines:

These are defined in relation to the overall distribution of income or consumption in a country; for example, the poverty line could be set at 50 percent of the country's mean income or consumption.

7.2.11 Absolute Poverty Lines:

For monetary measures, these absolute poverty lines are often based on estimates of the cost of basic food needs, that is, the cost of a nutritional basket considered minimal for the health and well-being of a typical family, to which a provision is added for non-food needs.

7.3 Food Poverty

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

7.3.1 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.

7.3.2 Food Poverty Rate or Extreme Poverty Rate

The extreme headcount poverty rate ("extreme/food poverty rate") measures the proportion of the population living below the food poverty line.

7.4 Basic Needs Poverty line

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

7.4.1 Basic Needs Poverty and Food Poverty

Basic needs poverty and food poverty often referred to as extreme poverty. If consumption per adult falls below the food poverty line, a household is necessarily consuming less than the minimum food requirement and so is considered to be 'food poor'. All households not affording food and those affording food but no other essential needs such as clothes are considered to be 'basic needs poor'.

7.4.2 The Incidence of Basic Needs Poverty

The incidence of Basic Needs Poverty is measured by the "head count ratio" which indicates the proportion of either households or population which had monthly consumption expenditures less than the determined poverty line. It attempts to define the absolute minimum resources necessary for long-term physical well-being in terms of consumption of goods.

7.5 Indicator

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

7.6 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.

7.7 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.

7.8 Non-durable goods

Household items that do not last long, for example food and personal care items. Household acquire these items on a daily, weekly or monthly basis.

7.9 Durable goods

These are household items that last for a long time, such as kitchen appliances, computers, radios and televisions, cars and furniture usually acquired once in several years.

7.10 Semi-durable goods

These are items that last longer than non-durable goods but still need replacing more often than durable goods, for example clothing, shoes and material for clothing.

7.11 Multidimensional Poverty Index (MPI)

Multidimensional Poverty Index is the product of the Incidence (H) and the Intensity (A) of multidimensional poverty. It ranges between 0 and 1, with 1 indicating that everyone would be multidimensionally poor and deprived in all indicators.

$$MPI = Incidence\ (H) \times Intensity\ (A)$$

H= Headcount ratio of multidimensional poverty or incidence of multidimensional poverty: This is the proportion of people who are multidimensionally poor. It ranges from 0 percent to 100 percent.

A= Intensity of multidimensional poverty: Is the average deprivation share among the multidimensionally poor. It ranges from poverty cut-off k to 100 percent.

7.12 Poverty Cut-off (k)

Multidimensional poverty line or threshold which indicates a minimum value of weighted deprivations to be considered MPI poor, reported as a percentage.

7.13 Indicator Weights

This indicates the percentage portion of each indicator out of the total indicators. Indicator weights are normalized and indicate the importance of each indicator within the overall index.

7.14 Deprivation Cut-off

Is the set of each indicator that establishes the cutoff of people who are deprived or nondeprived with respect to each indicator.

7.15 Human Development Indices

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

7.15.1 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

- Along and health life, measured by life expectancy at birth

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

Where; *LEI* is Life Expectancy Index

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

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

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

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

7.15.2 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.

7.15.3 Household Budget

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

7.15.4 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.

7.16 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.

7.17 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.

7.18 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

8.0 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 Force has its origin in the Constitution of the United Republic of Tanzania 1977, Cap. 2 R.E. 2002 and is constituted under section 3 of the Police Force and Auxiliary Police Services Act, Cap 322 R.E. 2002 for the preservation of peace, the maintenance of law and order, the prevention and detection of crime, the apprehension and guarding of offenders and the protection of property in Tanzania.

The Police Force usually compiles annual reports that include two types of statistics. These are crime statistics and administrative statistics. Administrative statistics include equipment, human and financial resources. Whereas crime statistics include all criminal cases that are regularly reported in all police stations in the country. The Tanzania Police Statistics is responsible for collecting, analyzing, storing and disseminating criminal offences and road traffic offences statistics. There are different types of offences which are major and minor criminal offences and major and minor road traffic incidents. Criminal offences are divided into three categories; offences against person, offences against property and offences against public tranquillity.

8.2 Crime Statistics

Crime statistics are statistical measures or numbers of criminal offenses reported and recorded by official law enforcing agencies such as police, that show different types of crimes as they happen in a specific area during a certain period of time.

8.2.1 Crime

An act or omission forbidden by law under the pain of punishment.

8.2.2 Offence

Is an act, attempt or omission forbidden by law.

8.2.3 Criminal Offences

Are defined as offences that are punishable by laws.

8.2.4 Major Criminal Offences

Are those offences, which police give priority due to the seriousness of events committed such as murder, robbery, illicit drugs etc.

8.2.5 Minor Criminal Offences

Are those offences, which police identify, that if committed the results cannot cause serious consequence but can annoy or do some minor harm to an individual, e.g. common assault, abusive language, gambling etc.

8.2.6 Road Traffic Offences

Refers to offenses that occurs on the road, which includes road accidents, causing deaths, injuries and damages of vessels.

8.2.7 Major Traffic Incidents

Are those incidents after occurring in roads they result in causing deaths, injuries and damages to properties.

8.2.8 Minor Traffic Incidents

Are those incidents when committed may or may not bring direct major effects, example of these incidents includes wrong parking, driving without license, over speeding and passing no entry. in these circumstances an offender can be fined by notifications or given warning.

8.2.9 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.

8.2.10 Vehicle

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

8.2.11 Motor Vehicle

Means any propelled vehicle intended or adapted for use in roads

8.2.12 Offences Against Person

Are offences which affect the personality of a person and his/her life. These offences among others include murder, rape, unnatural offence and child theft. It is a broad array of criminal offenses which usually involve bodily harm, the threat of bodily harm, or other actions committed against the will of an individual.

8.2.13 Murder

Is the death caused by of another person by any unlawful act or omission. Murder may be lawful and therefore not punishable.

8.2.14 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.

8.2.15 Theft

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

8.2.16 Burglary

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

8.2.17 Offences Against Property

Are offences associated with any kind of property which is either under individual, company or public ownership. It includes stealing of arms, armed robbery, robbery with violence, burglary, 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.

8.2.18 Offences Against Public Tranquility, Public Safety and State Security

Are offences against society's ethics such as drug abuse, bhang, khat, corruption, smuggling. It includes possession of illicit local liquor and drugs, Government trophies, unlawful possession of fire arms or ammunitions and illegal immigrants.

8.2.19 Financial Offences

Are offence related to forgery, counterfeiting of bank notes, theft in bank, theft in parastatal organisations, Central Government, local government and political parties

8.2.20 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.

8.2.21 Investigator

Refers to a police officer or any other person who has an authority from any Institution and accepted by the law to conduct the investigation of all criminal offenses and not civil offenses in order to discover the truth.

a) **Criminal Investigations**: Is an applied science that involves the study of facts used to identify, locate and prove the guilt of an accused person.
b) **Under Investigation**: Simply means the state of being investigated and the result of the matter investigated not yet completed.

8.2.22 Accused Person

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

8.2.23 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.

8.2.24 Suspected Person

Any person who is alleged to commit a crime.

8.2.25 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. An arrest is the act of apprehending and taking a person into custody (legal protection or control), usually because the person has been suspected of or observed committing a crime.

8.3 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.

8.4 Refugee

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

8.5 Offences Committed by Refugees

Are those acts or omission forbidden by law for the refugee in camps.

8.6 Cyber Crimes

This refers to any illegal activity that involves electronic devices, such as mobile phone and computer in the completion of offences. Some of offences are include cyber bullying, publication of false information, racist and xenophobic material, illegal device, illegal interception etc.

8.7 Terrorism

It is an act of violence committed by a person or group of persons that they consider themselves to be victimized by some notable wrong historically, this action could seriously damage the country, organization or individual to lead to significantly stabilize or destroy the fundamental political, economic or structure of the country or international organization or attacks on a person's life which may cause death or injury.

8.8 Juvenile

Means a person under the age of sixteen years.

8.8.1 Juvenile Offences

Juvenile Offences, is participation in illegal behavior by minors' people under 16.

8.8.2 Juvenile court

Is a specialized legal system that handles cases involving minors who are accused of committing offenses, focusing on rehabilitation rather than punishment.

8.9 Transnational Organized Crime (TOC)

This is organized crime coordinated across national borders, involving groups or markets of individuals working in more than one country to plan and execute illegal business ventures. In order to achieve their goals, these criminal groups use systematic violence and corruption. Common transnational organized crimes include conveying drugs, conveying arms, trafficking for sex, and poaching.

8.10 Trafficking of Persons

Is a recruitment, transportation, transfer, harboring or receipt of persons, through the threat or use of force, coercion, abduction, fraud, deception, or benefits to a person in control of the victim for the purpose of exploitation, sexual exploitation, forced labour, slavery or similar practices or removal of organs.

8.11 Terrorism

It is an act of violence committed by a person or group of persons that they consider themselves to be victimized by some notable wrong historically, this action could seriously damage the country, organization or individual to lead to significantly stabilize or destroy the fundamental political, economic or structure of the country or international organization or attacks on a person's life which may cause death or injury. Purpose of such act, by its nature or context, is to intimidate a population, or to compel a government or an international organization to do or abstain from doing any act.

8.12 Handling of Cases

The Handling of cases in general involves receiving of reported cases, investigation of the cases and taking authorized cases to court.

8.13 Money Laundering

Means engagement of a person or persons, direct or indirectly in conversion, transfer, concealment, disguising, use or acquisition of money or property known to be of illicit origin and in which such engagement intends to avoid the legal consequence of such action and includes offences.

8.14 Financial Transaction Fraud

Refers to the illegal or unauthorized activity involving the manipulation or misrepresentation of financial transactions, often with the intent to steal money or assets from individuals, organizations, or institutions. It involves scam by using mobile networks, transferring money from banks or withdrawing money using ATMs.

8.15 The Judiciary of Tanzania

The Judiciary of Tanzania is one of the three pillars of a democratic state. This pillar is charged with the function of administration of justice with equity and compassion according to the laws of the land in the state as provided for under Article 4 (2), 107A (1) and 107B of the Constitution of the United Republic of Tanzania. Article 107A of the Constitution of the United Republic of Tanzania of 1977 states that; The Judiciary shall be the authority with final decision in dispensation of justice in the United Republic of Tanzania. Article 107B of the constitution further states that "In exercising the powers of dispensing justice, all courts shall have freedom and shall be required only to observe the provisions of the Constitution and those of the laws of the land'' The vision of the Judiciary, the final impact of all collective efforts is to realize: 'Timely and accessible Justice for all". The mission is to administer Justice for all through timely provision of quality, fair, transparent and impartial decisions.

8.16 Judicial Hierarchy in Tanzania

There are five (5) levels of courts constituting the Judiciary of Tanzania. On top of the hierarchy, there is Court of Appeal of Tanzania; followed by the High Court of Tanzania the Resident Magistrates Court; the District Court and finally the Primary Court. Each of these courts have its own territorial and pecuniary jurisdiction. The Chief Justice has power to establish courts in different areas of the country wherever need arises

8.16.1 The Court of Appeal of Tanzania

The Court of Appeal of Tanzania was established by Article 117(1) of the Constitution of the United Republic of Tanzania and Act No.15/1979 known as the Appellate Jurisdiction Act. Currently, this court is the final appellate court system under Judiciary of Tanzania.

8.16.2 The High Court of Tanzania

The High Court of Tanzania ranks second in hierarchy. The High Court was first established by Article 17 (1) of the Tanganyika Order-in-Council, 1920, the High Court now derives its establishment from Article 108 (1) of the 1977 Union Constitution as the High Court of The United Republic of Tanzania

The High Court of Tanzania had embarked upon reforms so as to speed up disposal of cases. One of these transformations is the introduction of specialized divisions of the High Court commonly known as Divisions of the High Court. These specialized divisions are Commercial, Labour and Land Divisions of the High Court of Tanzania.

8.16.3 Commercial Division

This was established under Rule 5A of the High Court Registries Rules 1985 as amended by GN. No.141 of 1999 (High Court Registries Rules of 1985 have been replaced by GN. No.96/2005). The objective is to adjudicate on commercial disputes

efficiently, effectively and timely, in order to provide a positive climate for investment and economic development.

8.16.4 Labour Division

The Labour Division was established by Rule 5E of the High Court Registries Rules 1985 as amended by GN No.63 of 2001) of the High Court of Tanzania. The objective is to adjudicate on labour and employment disputes between employees and employers within the pecuniary jurisdiction of the High Court efficiently, effectively and timely, in order to enhance and protect industrial harmony.

8.16.5 Land Division

The Land Division was also established by Rule 5E of the High Court Registries Rules 1985 as amended by GN No.63 of 2001 with the objective to adjudicate land disputes by hearing and deciding cases without undue delays.

8.16.6 High Court Registries

Apart from those divisions of the High Court which have their own registries, there is the Main registry of the High Court and other District Registries in some of the Districst in Tanzania and sometimes called zones of the High Court.

8.16.7 The Resident Magistrates Courts

Resident Magistrate's Courts are established by Section 5 of the Magistrate's Courts Act Cap 11with the objective of adjudicating on civil and criminal matters subject to the provisions of any law for the time being in force over an administrative region comprising of several districts.

8.16.8 The District Courts

The District Courts are established by Section 4 of the Magistrates Court Act, Cap 11. Their objective is to adjudicate on civil and criminal matters subject to the provisions of any law for the time being in force within the district in which it is established

8.16.9 Primary Courts

This is the lowest level according to courts hierarchy, established by Section 3 of The Magistrates Court Act, Cap 11. It is a court which exercises jurisdiction within the whole district in which it is established and therefore may, for purpose of improving equitable access to justice, be held at any place within the local limits of its territorial jurisdiction. In this regard the Judiciary of Tanzania among other things has responsibilities of monitoring the performance of court system in delivering justice

through, collecting, analyzing, interpreting and reporting on various case statistics. The following are various terms used in regard to case statistics: -

8.16.9.1 Filed Cases

Refers to number of cases registered in court.

8.16.9.2 Pending cases

Refers to number of outstanding cases in court.

8.16.9.3 Case load

Refers to total number of outstanding cases including number of cases filed during the period under consideration.

8.16.9.4 Disposed/Decided Cases

Refers to number of finalized cases.

8.16.9.5 Case Backlog

Refers to number of cases which has been outstanding (pending) in court for more than two years.

8.16.9.6 Clearance rate

This is the percentage of the number of decided cases over number of filed cases in a particular period of time.

8.16.9.7 Disposal rate

This is the percentage of decided cases calculated as the ratio of decided cases and total number of cases (filed cases plus pending cases) in particular period of time.

8.16.9.8 Civil (proceeding) Case

Refers to legal process initiated in a civil court where one party (plaintiff) files a lawsuit against another party (the defendant) to resolve a dispute between them, usually seeking momentary.

8.16.9.9 Criminal Case

Refers to the legal proceeding in which the government prosecutes someone for crime.

8.16.9.10 Conviction

A formal declaration by the verdict of a jury or the decision of the judge in court of law that someone is guilty of a criminal offence.

8.16.9.11 Appeal

Is the process of applying to the higher court for reversal of the decision of the lower court.

8.16.9.12 Jurisdiction

The extent of power to make legal decisions and judgments.

8.16.9.13 Acquittal

A verdict that a person is not guilty of the crime which they have been charged.

8.17 Prison

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

8.17.1 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.

8.17.2 Adult prisoner

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

8.17.3 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.

8.17.4 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.

8.17.5 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.

8.17.6 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.

8.17.7 Unconvict 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.

8.17.8 Young prisoner

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

8.17.9 Camp

Means a small prison established for specific undertaking(S) which caters for few or certain types of prisoners having not more than twelve months to serve before release.

8.17.10 Central Prison

Means a large maximum-security prison which caters for all types of prisoners serving any lengths of sentences and is controlled by an Officer of or above the rank of Senior Superintendent.

8.17.11 Child

According to prison, a child means a person under the age of twelve years.

8.17.12 Community Service

Means a rehabilitation programme administered under the Community Service Act,2002.

8.17.13 District prison

Means a maximum-security prison which is a reception center for remandees in a district and caters for prisoners serving sentences of up to ten years. It is controlled by prisons Officer of a rank of or above an Assistant Superintendent.

8.17.14 Farm Prison

Means a large, open prison situated in rural area specialized in one or more agricultural activities and catering for certain types of prisoners who have not more than ten years to serve before release.

8.17.15 Incorrigible

Means a prisoner who is a persistent offender and has developed a habit of demonstrating a character that is incompatible with good order and security in prison.

8.17.16 National Parole Board

Means the National Parole Board established under Section 3 of the parole Boards Act No.25/94. **Parole Board** includes the National Parole Board and the Regional Parole Boards.

8.17.17 Parole

Means the conditional release of a convicted prisoner from prison before the expiration of his sentence.

8.17.18 Prison for Women

Means a prison which deals with the security and rehabilitation of women prisoners.

8.17.19 Prison for Young Offenders

Means a prison which deals only with the security and training of young offenders of all classes.

8.17.20 Recidivist Prison

Means a maximum-security prison which has been selected as a center for the detention and rehabilitation of habitual offenders.

8.17.21 Regional Prisons Officer

Means a Senior Prisons Officer who has been appointed to be in charge of all matters connected with the Service in a Region by the Principal Commissioner.

8.17.22 Regional Parole Board

Means the Regional Parole Board established under Section 3 of the Parole Boards Act, No.25/94

8.17.23 Visiting Justice

Means a person appointed to be a Visiting Justice under Section 100 of the Prisons Act 1967.

CHAPTER NINE
GENDER STATISTICS

9.0 Introduction

Gender statistics refer to data that highlights the differences in outcomes, behaviours, and opportunities between individuals of different genders. These statistics are crucial for understanding disparities in areas such as education, economics, employment, health, political representation, and income. By providing a gender-based breakdown of data, these statistics help to identify patterns of inequality and inform policies aimed at promoting gender equality. Gender statistics also play a key role in monitoring the progress of national, regional and international commitments, such as the United Nations Sustainable Development Goals, particularly goal No. 5, which seeks to achieve gender equality and empower all women and girls. Accurate and comprehensive gender statistics are essential for designing targeted interventions that address the unique needs of different gender groups and reduce systemic inequalities. The concept and definition of gender statistics are providing a structured way to collect, analyze, and interpret data on gender differences, enabling policymakers, researchers, and organizations to identify disparities and design targeted interventions to promote gender equality.

9.1 Gender

Means participating between men and women, their roles, access to and control over resources, division of labor, interests and needs. Gender refers to the role of a male or female in society, it is constructed over time

9.2 Gender Equality

Means when persons of both sexes have equal rights, responsibilities and opportunities. Gender equality is the equal valuing by society of the similarities and the differences of girls, women, boys and men, and the roles they play. This means that girls, women, boys and men have equal conditions for realizing their full human rights and for contributing to, and benefiting from, economic, social, cultural and political development. Gender equality directly correlates with increase in productivity, health and standard of living that positively affect all women, men, boys and girls in society.

9.3 Gender Equity

This means the “fairness of treatment for women and men, according to their respective needs, including the equal treatment or treatment considered equivalent in terms of rights, benefits, obligations and opportunities”. To ensure fairness, measures must often be put in place to

compensate for the historical and social disadvantages that prevent women and men from operating on a level playing field.

9.4 Gender Discrimination

This is the systematic, unfavourable treatment of individuals on the basis of their gender, which denies them rights, opportunities or resources

9.5 Gender Parity

Means a numerical concept concerning the relative equality in terms of numbers and proportions of women and men, girls and boys. Gender parity is often calculated as a ratio of female-to-male values of a given indicator

9.6 Gender Gap

Any disparity between women and men's condition or position in society. Often used to refer to a difference in average earnings between women and men

9.7 Gender Statistics

This is an area that cuts across traditional fields of statistics to identify, produce and disseminate statistics that reflect the realities of the lives of women and men, and policy issues relating to gender (www.unece.org/stats/gender).

Gender statistics comprise:

- Sex-disaggregated data
- Data pertaining specifically to women or to men
- Data that captures specific gender issues

9.8 Gender Gap

Gender gap is described as disparities involving quality or quantity between genders. A gender gap favouring the male sex is called a pro-male gender gap, while the opposite is called a pro-female gender gap. An example, of a gender gap is the difference in pay between men and women handling the same employment responsibilities

9.9 Gender Indicators

This measures gender related changes in society over time. The term gender sensitive indicator incorporates sex disaggregated indicators which provide separate measures for men and women on a specific indicator such as literacy. Gender sensitive indicators may also refer to gender specific indicators where the indicator is specific to women or men, for example, Maternal mortality (indicator for women only).

9.10 Gender Issue

A gender issue is a point of undesirable gender inequality that requires intervention

9.11 Gender Planning

Gender planning is a technical and political processes and procedures necessary to implement gender-sensitive policy

9.12 Gender Based Violence (GBV)

Are any harmful act that is perpetrated against a person's will and is based on socially ascribed (gender) differences between males and females. These actions affect a person physically, psychologically and emotionally which can negatively affect health, security, survival, development and a person's dignity.

9.12.1 Physical violence

Refers to the intentional use of force or aggression against another person, causing harm or injury, and can include actions like hitting, kicking, or choking, pushing, shaking, or throwing something; slap; twist arm or pull hair; punch with fist or with something that could hurt; drag, or beat up; choke or burn on purpose; or attack with a knife, gun, or other weapon.

9.12.2 Sexual violence

Refer to unwanted sexual act, attempt to obtain a sexual act, or contact or communication with unwanted sexual attention without valid consent or with consent as a result of intimidation, force, fraud, coercion, threat, deception, use of drugs or alcohol, or abuse of power or of a position of vulnerability.

9.12.3 Emotional violence

Emotional violence refers to the use of manipulative, threatening, or degrading behavior to control, belittle, or harm another person's emotional well-being such as saying or doing something to humiliate in front of others, threaten to hurt or harm, or insult or make feel bad which is often causing lasting psychological damage.

9.12.4 Economic violence

Refers to the control or manipulation of an individual's financial resources, often by limiting their access to money, employment, or financial independence, to exert power and control over them.

9.12.5 Technological violence

Refers to the use of technology, such as digital harassment, cyberbullying, or online stalking, to harm, intimidate, or control another person.

9.12.6 Intimate partner violence

Refers to any form of physical, emotional, sexual, or psychological abuse or violence that occurs between current or former partners in a close relationship, aiming to exert power and control over the other person.

9.12.7 A perpetrator

Is an individual who carries out or commits a harmful or illegal act, such as a crime, violence, or abuse.

9.13 Gender Disaggregated Data

This is statistical information about socially defined roles and activities of women and men in any social or economic activity

9.14 Sex

Refers to the set of biological and physiological characteristics that define men and women. It is the differentiation of individuals, groups or an entire population of a country with reference to their reproductive functions.

9.15 Sex Disaggregated Data

Statistical information classified by sex, that is, by whether the subject of reference is female or male

9.16 Sex Ratio

This is the proportion of males relative to females in a population.

9.17 Female Genital Cutting or Mutilation (FGC/M)

It also known as female genital cutting, female genital mutilation/cutting (FGM/C) and female circumcision, is the practice of cutting or removing the external female genitalia without medical justification or consent.

9.18 Time Use Statistics

This is a measure of what women and men do, by recording in sequence for each individual, all activities over some fixed period of time, usually a day or week. They represent an alternative to traditional methods of measurement of paid and unpaid work.

9.19 Time Use Survey (TUS)

Collects information on how people allocate their time among different types of activities during the day, and provide a detailed picture of people's daily lives in a given time period.

9.20 International Classification Activities for Time Use Statistics (ICATUS)

Means a classification of all the activities on which a person may spend time during the 24 hours that make up a day. Its purpose is to serve as a standard framework for time-use statistics based on activities grouped in a meaningful way.

9.21 Unpaid Care/Domestic Work

Refers to all unpaid services provided within a household for its members, including care of persons, housework and voluntary community work. These activities are considered work, because theoretically one could pay a third person to perform them.

9.22 Gender-Related Development Index (GDI)

The Gender-related Development Index (GDI) is a measure developed by the United Nations to assess gender disparities in human development. It combines indicators of life expectancy, education, and income to compare the achievements of men and women in a given country. The GDI adjusts the Human Development Index (HDI) by taking gender differences into account, with the goal of highlighting the gap between men and women in key areas of development. A higher GDI indicates a smaller gender gap, while a lower GDI signals greater disparities between genders.

9.23 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.

PART THREE: PRODUCTION AND ENVIRONMENT SECTOR
CHAPTER TEN
AGRICULTURAL STATISTICS

10.0 Introduction

Agricultural statistics are the aggregate of numerical information of different fields of agriculture and its economy. These include crops, livestock, Fisheries and forestry subsector statistics. Agricultural statistics is classified under two major headings namely, Basic Agricultural Statistics and Current Agricultural Statistics.

10.1 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.

10.2 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 and, fisheries. These statistics change more often than the Basic Agricultural Statistics. Current Statistics are collected more frequently (i.e., annually, semi-annually, quarterly or monthly).

10.3 Crop Subsector Statistics

These are statistics dealing with crops statistics only such as food crops production, cash crops production and value chain statistics.

10.3.1 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.

10.3.2 Land Use

Is a term used to describe the human use of land. 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, land under fallow, wood and forests and all other land not elsewhere classified.

10.3.3 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:

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 (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.

10.3.4 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.

10.3.5 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.

10.3.6 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.

10.3.7 Forest Products

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

10.3.8 Wood Products

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

10.3.9 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.

10.3.10 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,).

10.3.11 Land Tenure

Refers to the relationship between individuals, communities, or entities and land, particularly regarding ownership, possession, and use rights. Land tenure systems in encompass the legal, customary, and administrative frameworks that govern land ownership, control, and management. This includes the allocation of land, land use regulations, land rights, land transfer, and dispute resolution mechanisms.

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.

10.3.12 Soil Degradation

Refers to the physical, chemical and biological decline in soil quality. It can be the loss of organic matter, decline in soil fertility, and structural condition, erosion, adverse changes in salinity, acidity or alkalinity, and the effects of toxic chemicals, pollutants or excessive flooding. Soil degradation can involve: water erosion, wind erosion; salinity loss of organic matter; fertility decline; soil acidity or alkalinity; structure decline; mass movement; and soil contamination.

10.3.13 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 to fulfil plants' water requirements.

10.3.14 Drainage

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

10.3.15 Planted Area

It is the part of area where a crop has been planted.

10.3.16 Harvested Area

Refers to the part of cropped area that is harvested. It can therefore, be equal to the area planted minus the area that was not harvested due to pests, wild animals, drought and the like.

10.3.17 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.

10.3.18 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.

10.4 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;

10.4.1 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).

10.4.2 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.

10.4.3 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.

10.4.4 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.

10.4.5 Conservational Farming

Refers to farming system that promotes maintenance of a permanent soil cover, minimum soil disturbance, and diversification of plant species. It enhances biodiversity and natural biological processes above and below the ground surface, which contribute to increased water and nutrient use efficiency and to improved and sustained crop production.

10.4.5.1 Crop Diversification

It is the practice of cultivating more than one species in a given agricultural area, in the form of crop rotation and/or association. The diversification in cultivated species increases the adaptation capacity of agricultural systems to climate change by improving soil fertility and structure, soil water holding capacity and water and nutrients distribution through the soil profile, helping to prevent pests and diseases, and increasing yield stability.

10.4.5.2 Permanent Soil Organic Cover

This refers covering the land with crop residues and/or cover crops (e.g. legumes, cereals, or other crops planted between the main crops, primarily for the benefit of the soil rather than the crop yield) enables climate change adaptation by reducing soil erosion and degradation which can be exacerbated by the impact of extreme weather events (e.g. extreme precipitations, droughts and periods of soil saturation, extreme heat, strong wind events) and improving the stability of the conservation agriculture system

10.4.5.3 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.

10.4.5.4 Pure Stand

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

10.4.5.5 Inter-planted Crops

Crops planted between rows of another crop (e.g. maize or beans between sisal rows, or groundnuts between maize or sorghum rows).

- It is desirable to assign the inter-planted crop area to individual crops in proportion to the area occupied by each crop.
- Yields of some mixed crops may be as large as when grown alone (for example, sweet potatoes, and maize, maize and peas or beans), but the total of area equivalents assigned to individual crops should be equal to the total area under the mixture, even when favorable interactions, in the case of special mixtures, may result in increased yields.

10.4.6 Planted and Harvested Area (Current Year Production)

The planted and the harvested area particularly in respect of the long-duration crops like cassava, yam, plantains, etc, can be described according to the following situation;

- Planted in the previous year and harvested wholly or substantially in the current year, and
- Planted in the current year, but to be harvested wholly or substantially in the next year.

These situations should be normally recorded separately or distinctly, and the production for the current year should be related only to the harvested areas (a) and (b).
If in the above example, in the year next to the year of planting only cassava and yam are found in the field, then in the year, this field should be treated under cassava-yam mixture only.

10.4.7 Temporary Crops

This refers to crops that mature within one or more rain seasons e.g. beans and maize, but are destroyed after harvesting in agricultural year.

10.4.8 Perennial Crops

Plants that need not to be replanted after each harvest e.g. bananas, sugar canes, etc.

10.4.9 Permanent Crops

Crops which are not re-planted but are continuously harvested, e.g. mangoes, coffee, etc. They are cropping whose maturity exceeds one season.

10.4.10 Cash Crops

Crops grown specifically for sale. Examples of traditional cash crops grown in Tanzania Mainland include: coffee, cotton, tea, sisal, tobacco, pyrethrum and cashew nuts. Non-traditional cash crops include low-value food staples (maize, beans and other cereals), spices and high-value industrial crops (vanilla, ginger and chilies) and Oil seeds, horticultural crops (flowers, vegetables, pineapples).

10.4.11 Food Crops

Food crop is a term used to refer to crops that are mainly grown for food consumption. However, many of these crops have in the recent years been sold for cash in export markets, e.g. Maize, Simsim, Beans, Soya Beans, etc. Other main food crops are: sorghum, wheat, millets, cassava, potatoes (Sweet & irish potatoes), banana, pulses (beans, cowpeas, pigeon peas, chick peas, bambaranuts, etc), Horticultural crops (onions, tomatoes, cabbages, etc), Fruits (mangoes, oranges, pawpaws, guavas, etc.)

10.5 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/pests.

10.5.1 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 or Chemical Fertilizers:** Fertilizer materials derived from minerals, atmospheric gases, water, and inert materials. It can be natural or synthetic products of chemical reactions. These are classified into two types namely: NPK and Ammonium Phosphates.

b) **Organic_Fertilizers:** It is also called organic manure, fertilizer that is derived from organic sources, these are materials of organic origin, either natural or processed, used as source of plant nutrients. They contain at least 5 percent of one or a combination of the three primary nutrients (N; P2O5; K2O). These include farm yard manure, compost, green manure and seaweeds.

a) **Farm Yard Manure:** This refers to farm dung and urine mixed with litter mainly straw, to absorb the urine or animal manure which is a mixture of soil and excreta of animals with litter used for their bedding.
b) **Compost:** Consists of organic materials of animal, plant or human origin partially decomposed through fermentation.
c) **Green Manure:** These are specific crops grown with the purpose of being dug into the soil while still green, such as sand hemp mustard. They are usually planted on unoccupied land between the maincrops. When incorporated into soil, the plant's residues decompose and turn into a mass of green manure that can be dug into the soil or used as mulch.
d) **Mineral Fertilizer:** Fertilizers produced from materials mined from naturally occurring nutrients deposits, or from the fixation of nitrogen from the atmosphere into plant-available forms which are obtained through an industrial process.

10.5.2 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.

10.5.3 Herbicides

Chemicals used to control undesirable or noxious plant growth, generally called weeds, in areas dedicated to crop production or in non-crop areas where plant growth is unwanted.

10.5.4 Insecticides

Natural or synthetic substances which kill insects. Natural insecticides (i.e. those produced from plant extracts) are less harmful to the environment than synthetic insecticides (that are chemically based), which, though effective, are often persistent and kill not only insects but also larger animals when they get into the food chain. Insecticides are used in a number of ways, including spraying and dusting, or in granular forms as seed dressings.

10.5.5 Fungicides

Chemicals used to kill fungi or restrict their growth. Fungicides are available as sprays or dusts for use on crops.

10.5.6 Fumigants

Soil fumigants are chemicals (solids, liquids, or gases) that, when applied to soil under specified temperature and moisture conditions, generate toxic gases that can kill many kinds of pest organisms as the fumes spread through the soil.

10.5.7 Rodenticides

Refers to any substance that is used to kill rats, mice, and other rodent pests

10.6 Agricultural Holding

Refers to any economic unit of agricultural production (like a garden of temporary and/or permanent crops or cattle rearing/plantation) under single management, without regard to title, legal form or size. The following are types of agricultural holdings.

10.6.1 Crops Only

A holding is referred to be a crop only holding if it has cultivated a piece of land equal or exceeding 25 square Meter. This also applies to all households owning or have kept livestock whose number does not qualify such household to be an agricultural holding (No cattle, less than 5 goats/sheep/pigs, less than 50 chickens/turkeys/ducks/rabbits)

10.6.2 Livestock Only

A holding is referred to be a livestock only holding if it has exercised livestock husbandry only during the reference agricultural year. The number of livestock has to be at least 1 head of cattle, 5 goats/sheep/pigs or 50 chickens/turkeys/ducks/rabbits. This also applies to all households owning or have cultivated a piece of land less than 25 square meter, which does not qualify such household be an agricultural holding.

10.6.3 Both Crops and Livestock

A holding is referred to be a both crops and livestock if it has cultivated a piece of land equal or exceeding 25 square meter and if such households is owning or have kept livestock whose number qualify such household be an agricultural holding.

10.7 Livestock Pastoralism

This refers to a household which practices livestock production as its major income generating activity and a means of subsistence, but moves from one place to another searching for water and pasture for the livestock. This movement usually involves long distances and, in many cases, the whole household unit moves with the livestock and they have no permanent place of residence.

10.8 Agricultural Production

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

10.9 Agricultural Year

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

10.10 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.

10.11 Small Scale Farms

These are farms, with at least 25 square meters of planted land and /or one herd of cattle, 5 goats/sheep/pigs, 50 chicken/ducks/guinea fowls/rabbits.

10.12 Long Rainy (Masika) Season

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

10.13 Short Rainy (Vuli) Season

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

10.14 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.)

10.15 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.

10.16 Pasture Land

This is an area of owned/allocated land which is set aside for livestock grazing. It can be improved pasture where the farmer has planted grass, applied fertilized or applied other production increasing technologies to improve the grazing.

10.17 Fallow

This is the area of land that is normally used for crop production, but left for a period without being sown in a year or a number of years. This is normally to allow for self-generation of fertility/soil structure and is often an integral part of the crop rotation system.

10.18 Investment Activities

Investment activities refer to medium to long term farm development structures and projects. This can be Irrigation structures, erosion and water harvesting structures or other permanent or semi-permanent investment made on the land that the household owns.

10.19 Livestock Statistics

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

10.20 Livestock

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

10.20.1 Indigenous Livestock

Refers to native livestock commonly reared naturally without special attention. Such livestock are neither fed by special feed nor special housing.

10.20.2 Improved Livestock

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

10.20.3 Poultry

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

10.20.4 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.

10.20.5 Indigenous Poultry

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

10.20.6 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.

10.20.7 Flock

Is a group of animals (such as sheep or poultry) assembled or herded together.

10.20.8 Herd

Is a group of single species of animal (cattle, swine, sheep and goat) kept, feeding, or travelling together.

10.20.9 Litter

Is multiple off springs produced at one birth by a multifarious mammal also called brood.

10.20.10 Animal

Means any vertebrates or invertebrate other than a human being.

10.20.11 Artificial Insemination

Is the technique of collecting semen from male animals, processing it and inserting it via pipette into the female reproductive tract.

10.21 Crossbreeding

Refers to produce (an animal or plant) by mating or hybridizing two or more different species, breeds, or variety.

10.22 Dairy farm

Means any premises used for the production, processing or manufacturing of milk into milk products for sale.

10.23 Embryo Transfer

Is the technique of removing an embryo from one female (donor) and inserting it into the reproductive track of another female (recipient).

10.23.1 Exotic Breed

Means ‘foreign’ livestock species that originate from foreign countries being introduced in the country.

10.23.2 Local Breed

Means a breed that is adapted to a specific habitat and that has been shaped, often over centuries, by the cultural preferences of a particular community or ethnic group.

10.23.3 Veterinary Medicines

Veterinary medicines include pharmaceuticals, chemical and biological used for treating, preventing and diagnosing diseases of animals for promoting productivity.

10.23.4 Range Land

Is an extensive area that is not cultivated, and contains forages which can sustain animals. Range development consists of pasture improvement, water development and conservation.

10.23.5 Zoonosis

Means diseases that can be transmitted from animals to human beings and vice versa.

10.23.6 Take-off Rate

The percentage of all animals of the species which are taken from the national herd during the year for slaughter in the country or in other countries.

10.24 Primary Products

Those products coming directly from slaughtered animals, including meat, offal, raw fats, fresh hides and skins.

10.24.1 Processed Products

These are derived from the processing of primary products and include sausages, lard and salted hides.

10.24.2 Fisheries

This refers to the enterprise of rising or harvesting fish and other aquatic life.

10.24.3 Capture Fishery

This means fishing practices in natural and man-made communally owned water bodies.

10.25 Fish Farming

Is the principal form of aquaculture, it is the practice of breeding fish in captivity for human consumption, while other methods may fall under mariculture. Fish farming involves raising fish commercially in tanks or enclosures, usually for food (Fisheries).

10.26 Aquaculture

Means the practice of breeding and raising aquatic organisms in a controlled aquatic environment.

10.27 Brackish Water or Briny Water

Is water that has more salinity than fresh water, but not as much as seawater. It may result from mixing of sea water with fresh water, as in estuaries, or it may occur in brackish fossil aquifers.

10.28 Aquaculture Products

Means all fishery products born and raised in controlled conditions until placed on a market

10.29 Artisanal Fisheries

Means a category of fisheries that is of small scale using relatively small amount of capital.

10.30 Beach Management Unit

Means a group of stakeholders in a fishing community whose main function is management, conservation and protection of fish in their locality in collaboration with the government.

10.31 Cage Culture

Means the practice of breeding and raising aquatic organisms in structures made of net webbings, weld mesh or any other material placed in a water body. In cage culture, fish are confined in cages suspended from a floating frame.

10.32 Coastal Areas

Means the area from the baseline of Territorial Sea landward side to 60 meters as prescribed by the Land Act, No. 4 of 1999 the land adjacent to natural or man-made water bodies or water mark.

10.33 Fisher Folk

Means a person or group of people involved in aquaculture, fishing, net mending, boat building, fishing vessels repair, fish trading and fish processing.

10.34 Establishment

Means any premise or vessel where fish or fish products are prepared, processed, frozen, packaged or stored, but does not include auction and wholesale markets.

10.35 Fisheries Support Services

Means activities that support fisheries industry. These include training, research, extension, credit, aquatic health, input manufacturers and delivery system, processing, storage and transport.

10.36 Large Scale Fish Farmer

Means a person or group of people involved in breeding or raising aquatic organism in an area exceeding half hectare or in a production unit which can hold more than 20,000 fish

10.37 Marine Parks

Means a legally designated area of marine or fresh water and its overlaying inter-land which is managed for the purpose of sustainable resources utilization.

CHAPTER TEN
INDUSTRIAL STATISTICS

11.0 Introduction

Industrial statistics are statistics reflecting the characteristics and all economic activities of units engaged in a class of industrial activities that are defined in terms of the International Standard Industrial Classification of All Economic Activities, Revision 4 (ISIC, Rev.4). The term "industry" thus refers to a class of ISIC that encompasses all economic activities including agriculture and services-producing activities within an economy and is therefore much broader than the term "industry" as it is popularly understood, which refers sometimes to manufacturing activities alone and sometimes to a more extended list of activities which may also include construction and mining.

The term industry in this publication refers to industrial statistics that are relevant to a limited set of economic activities as described in Industrial Recommendation for Industrial Statistics (IRIS 2008). It covers the four sectors of Mining and Quarrying; Manufacturing; Electricity, Gas, Steam and Air Conditioning; and Water supply; sewerage, Waste Management and Remediation activities. All the activities classified as industry in the International Standard of Industrial Classification (ISIC Rev. 4) are engaged of non-agricultural commodities. Industrial Statistics involves the collection, compilation, analysis, interpretation and dissemination of the Industrial Statistics.

11.1 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)
- Collection, 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.

11.1.1 Building Materials

Includes all forms of rock, stones, gravel, sand, clay, soils, volcanic ash or cinder or other minerals being used for the construction of buildings, roads, dams, or similar works but does not include gypsum, limestone being burned for the production of lime, or materials used for the manufacture of cement.

11.1.2 Energy Minerals

Means a group of minerals comprising of coal, peat, uranium, thorium and other radioactive minerals. Energy minerals used to produce electricity, fuel for transportation, heating for homes and offices and in the manufacture of plastics.

Gold

11.1.3 Industrial Minerals

Means a group of minerals comprising of phosphate, kaolin, lime, gypsum, dolomite, diatomite, pozzollana, salt, beach sands, and other than metallic minerals, normally used in industries.

11.1.4 Metallic Minerals

Metallic minerals are minerals that contain metallic elements. They are extracted from mineral deposits, which are concentrations of metallic minerals produced by geological processes. Some metallic minerals contain valuable metals, such as copper, gold, nickel, lead, zinc or platinum.

11.1.5 Gemstones

Refers to any other rough and uncut stone which may be declared to be a gemstone by the Minister by notice in the Gazette. It includes Diamonds, emeralds, and other germ varieties of beryl, opal, ruby, topaz, spinel, moonstone and amethyst, other germ varieties of quartz, garnet, zoisite, tanzanite, and scapolite, in rough and uncut form.

11.1.6 Holder

Means the person in whose name a Mineral Right is registered.

11.1.7 Mine

Means any place, excavation or working in or on which any operation connected with mining is carried on together with all buildings, premises, erections and appliances belonging or appertaining to there, above or vertically below the ground within horizontal boundaries of the licence, for the purpose of mining, treating or preparing minerals.

11.2 Manufacturing

It means the physical or chemical transformation of materials, substances or components 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: Specialized maintenance and repair of industrial, commercial and similar machinery and equipment is included in manufacturing. However, the repair of computers and personal and household goods and the repair of motor vehicles are not included in manufacturing. As a general rule, the activities in the manufacturing section involve the transformation of materials into new products.

11.2.1 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

11.2.2 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.

11.2.3 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.

11.2.4 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

11.2.5 Statistical units

It is defined as the entities about which information is sought and about which statistics are ultimately compiled. These may be identifiable legal or physical entities or statistical constructs.

11.2.6 Establishment

As describes in System of Nation Accounts (SNA) the statistical unit of analysis for industrial statistics is the establishment. The establishment is defined as an enterprise or part of an enterprise that is situated in a single location and in which only a single (non-ancillary) productive activity is carried out or in which the principal productive activity accounts for most of the value added.

11.2.7 Activity of the Establishment

Is the description of the economic task/activity of an establishment as its registered activity or activity defined in the foundation regulation or document.

11.2.8 Principal Activity/Main Activity

Refers to the 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.

11.2.9 Auxiliary Activity

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

11.2.10 Persons Engaged

Refers to all persons (permanent or casual) who during a specified period, worked in or for the establishment i.e. they were attached to it. It includes working proprietors, unpaid family workers and employees (operatives, managerial and professional staff). It includes even those who during the specified period were temporary absent from work eg. on sick leave, casual leave or vacation leave. It excludes persons on military leave, pension and other forms of unlimited leave.

11.2.11 Permanent employees

Workers on a long-term employment contract who receive regular payment for their labour, in cash and/or in kind.

11.2.12 Casual/seasonal employees

Workers engaged on a daily or short-term basis who receive regular payment for their labour, in cash and/or in kind.

11.2.13 Full time workers

Workers who are, during their period of engagement, working the regular full working week as determined by law, contract or otherwise. This also includes those seasonal or casual workers that work for the full working day or week during the period they are engaged.

11.2.14 Part time workers

Workers that are engaged for less than the full working week; this applies to both permanent and temporary workers

11.2.15 Apprentices

Refers to students who acquiring necessary skills through an on-the-job training programme. Apprentices may receive some compensation but they do not normally receive a regular salary

11.2.16 Operatives

These are persons who are directly engaged in the production process or related activities of the establishment and who receive pay, in cash or in kind, at regular

intervals. Operative there are skilled and non – skilled. This includes machine operators, manufacturing clerks, production management staff, etc.

11.2.17 Operatives- Skilled

Operative-skilled are persons with specialized skills, for example; persons engaged in fabricating, processing or assembling, fitters, packers, repairmen, record-keeping personnel, foremen and inspectors.

11.2.18 Operatives, non-skilled

Workers in this group are non-specialized skill performing routine tasks, either manually or using hand tools and appliances. The group includes such occupations as, cleaners, foremen and casual labourers, etc.

11.2.19 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, as well as salaried managers/directors, laboratory and research workers, clerks, typists, bookkeepers, administrative supervisors, salesmen and the like.

11.2.20 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.

11.2.21 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 does not apply to any incorporated or similar enterprise where ownership is represented by equity shares.

11.2.22 Total Persons Engaged

This is the total labour force and is the sum of all those persons working with or without pay, full or part-time, temporary or permanent.

11.2.23 Labour Costs

Refers to gross wages/salary, overtime payments, reimbursement of travel expenses, payments in kinds, employer's contributions to social security schemes, training expenses to employees and other labour costs related to employees.

11.2.24 Leased workers

Refers to workers provided through an outside agency (employment agencies, sub-contractors, etc.) on a short-term or long-term basis, who are not on the payroll of the company but on that of the agency providing the staff.

11.2.25 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.

11.2.26 Gross Salaries

These refer to cash payments paid to other employees in connection with work done. This term includes bonuses, commissions, overtime, vacation pay, sick leave, maternity and casual leave payments.

11.2.27 Benefits in Kind

These are payments made, in kind other than cash 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.

11.2.28 Social Security Schemes

These are the employers' contribution to the social security schemes and pension funds e.g. the National Social Security Fund (NSSF), Public Services Social Security Fund (PSSSF), Workers Compensation Fund (WCF) and other funds of this nature organized by the establishment concerned.

11.2.29 Output

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

11.2.30 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.

11.2.31 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.

11.2.32 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.

11.2.33 Sales of Goods as Purchased

This is the sales value, ex-establishment, of all goods that are sold without any transformation i.e, in the same condition as purchased. These goods are not subjected to any further manufacturing process and are normally known as trade goods.

11.2.34 Fixed Assets (or Capital Goods) Produced for Own Account

Refer to assets that a company manufactures for its own use rather than for sale to external customers. These assets are typically produced by the company's own resources, such as labor, materials, and equipment, and are intended to be used

internally to support the company's operations. It includes value of installations, extensions and major repairs

11.2.35 Gross Output

Gross output refers to the total sales value of all goods and services produced within an establishment during the reference period, typically measured annually or quarterly. It represents the total economic activity generated by that establishment, including both intermediate goods and final goods. The value of production at basic prices is calculated as follows

This is equal to the sum of the following:

- Value of Principal Products
- Value of sale of all goods and services purchased for resale in the same condition as received
- Receipts for Industrial Services Rendered
- Receipts for Non-Industrial Services
- Sales Value of Goods Shipped as Received
- Value of Fixed Assets Produced for Own-account
- Change in inventories
- **Deducting** Purchases of goods and services for resale in the same condition as received

11.2.36 Inputs

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

11.2.37 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.

11.2.38 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.

11.2.39 Material for Own-Account Construction of Fixed Assets

Refer to the resources or inputs that a company uses to build or construct fixed assets for its own use rather than for sale to external customers. E.g. buildings, machinery, installations, extensions, improvements and major repairs.

11.2.40 Value of Fuel and Lubricants

This is the value of all fuels and lubricants consumed by the establishment in the production process.

11.2.41 Cost of Electricity Purchased

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

11.2.42 Transport Costs

They include costs for own and hired transport.

11.2.43 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.

11.2.44 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.

11.2.45 Production Costs

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

11.3 Value Added

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

11.3.1 Gross Value Added

This represents the difference between Gross Output and Production Costs. (intermediate consumption).

Gross value added is equal to gross output less the value of the intermediate consumption/production cost. The sum of the value added of all domestic producers gives the contribution to the Gross Domestic Product (GDP). Gross value added may be at factor cost, basic prices or at producers' prices depending on the treatment of taxes on production and subsidies. Value added at basic prices is obtained as the difference between gross output and intermediate consumption whereby output is valued at basic prices and intermediate consumption at purchasers' prices.

11.3.2 Net Value Added

It is the difference between Gross Value Added and Depreciation.

11.3.3 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.

11.3.4 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.

11.3.5 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.

11.3.6 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.

11.4 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.

11.5 Machinery and Other Equipment

Refer to the tools, instruments, machines, and other physical assets used in various industrial, manufacturing, commercial, or service-related activities. 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.

11.5.1 Manual Machinery

Refers to equipment or tools that are operated and controlled directly by human labor without automated or powered assistance.

11.5.2 Semi-Automatic Machinery

Refers to equipment or machines that combine manual operation with some level of automation to perform tasks.

11.5.3 Automatic Machinery

Refers to equipment or machines that operate without direct human intervention once they are set up and initiated.

11.5.4 Transport Equipment

Includes trucks, cars, trailers, aircraft, animal carts and wagons. But only those connected with industrial activity.

11.6 Disposals

Disposal means sale, retirement, exchange or transfer and other form of removal of fixed assets from company balance sheet Disposals to others should be valued ex-establishment excluding discounts and direct taxes but including subsidies received.

11.6.1 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.

11.6.2 Sales of Own Goods

It represents the total sales or revenue by selling the products in a reference year from own productions, or otherwise own 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.

11.6.3 Indirect Taxes

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

11.6.4 Discount

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

11.6.5 Rebates

The partial amount of money given to a customer by which a debt, tax or price may be reduced after they have made a purchase. For instance, there is often a rebate if the account is settled before a given date. Typically redeemed by a customer through a specified process, such as submitting a form or proof of purchase.

11.6.6 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.

11.6.7 Profits from Sale of Fixed Assets

This refers the financial gain realized when a company sells a long – term assets, such as property, equipment, or vehicles, for more than it carrying value or book value on the balance sheet. This is obtained by calculating the difference between the sales value (market price) and the book value on the balance sheet and any accumulated depreciation of the fixed assets sold.

11.6.8 Royalties in Industrial Sector

This refers to payments made by one company (the licensee) to another (the Licensor) for the right to use intellectual property such as patents, trademarks, copyrights, or proprietary technology in the production or resale of goods or services.

11.6.9 Dividends

Refers to payments made by a company to its shareholders out of its profits or reserves. They represent a portion of the company's earnings that is distributed to shareholders as a return on their investment in the company's stock.

11.6.10 Interest

Interest is the cost of borrowing money or the return on invested funds, expressed as a percentage of the principal amount. It also happens, when money is invested and receive as income earned on your investment.

11.6.11 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.

11.6.12 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.

11.6.13 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.

11.6.14 Other payments beneficial to employees

This is the payment by the employer on accounts incurred by the employees such as medical bills, school fees, telephone accounts and so on. If these are for the employees just because of their employment, they must be counted as part of their earnings.

11.7 Revenue

Revenue is a business term for the amount of money that a company/business receives from its activities in a given period, mostly from sales of products and/or services to customers.

Gross revenue: Gross revenue is the money generated by all of the company's operations, before deductions for expenses.

11.8 Sales

Sales refer to the transactions in which goods or services are exchanged for money or other consideration between a seller and a buyer. It is the process of selling goods or services to customers in exchange for payment.

11.9 Purchases

Ownership of a security or other asset in exchange for money or value, which includes the purchase of goods for resale and for other purposes.

11.9.1 Purchase of Goods for Resale

To achieve its goals of making profits, a trading business buys goods to sell after adding some mark-up to cover costs and make a profit. Traders may buy and sell goods without changing them in any way, or they may merely unpack them from large bulky containers and sell them in small packets or small quantities.

11.9.2 Running Expenses and Other Costs

These include costs for fuel used to run the business, vehicle registration and business license fees, depreciation, electricity, water charges, bank charges, interests, insurance, postage and telephone, advertisement, rents paid, repair, production tax and other costs of this nature.

11.10 Inventory

Inventory refers to the goods, raw materials, work-in-progress (WIP), or finished products that a company holds for the purpose of eventual sale or use in its operations.

It includes opening stock and closing stock at the start and the end of the reference period. It represents the value of trading goods held. Those values may change for the following reasons:

a) The real level or quantity of goods has changed over time;
b) The type of goods carried has changed from low-value goods to high-value goods or vice versa; and
c) The prices of goods have changed a lot over the period

11.10.1 Investment Expenditure

Investment expenditure refers to the spending by establishment on capital goods or assets that are expected to generate income, provide benefits or services over an extended period. e.g. cost of housing, other buildings, vehicles, machinery and other office equipment.

11.10.2 Additions

This is the value assigned to fixed assets, capital and inventory, acquired by the establishment during the reference period. It also includes all the costs actually incurred in their acquisition and installation.

a) **Capital Additions**: Capital additions are investments made by a company to expand its productive capacity or improve its operations. These investments may include expenditures on new facilities, technology upgrades, or infrastructure improvements.

b) **Additions to Inventory**: In inventory management, additions refer to new inventory items that are purchased, produced, or otherwise acquired by a company. These additions increase the quantity of inventory on hand and are tracked to ensure accurate stock levels.

c) **Additions to Fixed Assets**: Additions to fixed assets refer to improvements or enhancements made to existing fixed assets, such as renovations, upgrades, or additions to property, plant, or equipment.

11.10.3 Intermediate or Production Costs

Intermediate consumption/production costs of industries cover durable and non-durable goods and services used up in production, including repairs and maintenance of the capital stock, research and direct outlays in the financing of capital formation such as transfer costs involved in purchases of land and intangible assets. The consumption of materials and supplies is the total cost of purchases adjusted by change in stocks of raw materials.

11.10.4 Inventory of Working Capital

Value of stocks of materials and stores, finished products and work in progress (WIP) at the beginning and at the end of the accounting year. It reflects the amount of capital available to cover day-to-day operational expenses and short-term obligations**.**

11.10.5 Expenditure on Fixed Assets and Depreciation

Capital expenditure on land, buildings and structures, machinery/equipment, vehicles and other fixed assets during the accounting year. Allocating the cost of fixed assets over the course of their useful lives in order to represent the asset's declining value over time is known as depreciation.

11.10.6 Basic Price

The basic price is the amount receivable by the producer exclusive of taxes on products and inclusive of subsidies on products. It includes taxes on production.

11.10.7 Purchasers' Price

The purchasers' price is the amount payable by the purchaser exclusive of deductible taxes on products (e.g. deductible value added tax).

11.10.8 Inputs/Purchases

Value of raw, packaging and chemical materials consumed, cost of re-sales, services received and other costs.

11.10.9 Gross Operating Surplus

Gross operating surplus is defined as the excess of value added over the cost of workers' compensation.

11.10.10 Expenditure on Fixed Assets

This is the sum of the cost of new or old capital equipment acquired and value of assets produced on own account construction. Improvements and major alterations to existing fixed assets are also included.

11.10.11 Gross Additions to Fixed Assets

This is the total amount of capital expenditures made over a specific time period, usually a fiscal year, to acquire, upgrade, or build new fixed assets.

CHAPTER TWELVE
WATER, SANITATION AND HYGIENE STATISTICS

12.0 Introduction

This section includes activities related to the management (including collection, treatment and disposal) of various forms of waste, such as solid or non-solid industrial or household waste, as well as contaminated sites. The output of the waste or sewage treatment process can either be disposed of or become an input into other production processes. Activities of water supply are also grouped in this section, since they are often carried out in connection with, or by units also engaged in, the treatment of sewerage.

12.1 Safe Water

Water is drawn from improved sources which include piped water, protected wells and springs that have been enclosed to prevent contamination. According to the National Water Policy of 2002, safe water should be available within a radius of 400 meters from each home.

12.2 Piped Water

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

12.3 Ground Water

Water that is found beneath the Earth's surface in the pores and spaces of rock, soil, and sediment. It accumulates due to precipitation that infiltrates the ground and percolates downward until it reaches a zone where the spaces between particles are filled with water. Normally it stored or flowing below the surface of the ground and not apparent on the surface of the ground.

12.4 Housing Unit with Piped Water

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

12.5 Access to Safe Water

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

12.6 Water Pollution

The presence in water of harmful and objectionable material obtained from sewers, industrial wastes and rainwater run-off in sufficient concentration to make it unfit for use.

12.7 Rural Water Supply Services Coverage

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

12.7.1 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 source in which time taken to fetch some water should not exceed 30 minutes (go, wait, collect water and return home).

12.7.2 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.

12.7.3 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.

12.7.4 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).

12.7.5 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.

12.7.6 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.

12.7.7 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.

12.8 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.

12.8.1 Total Number of Samples Tested

It is defined as the number of products of sampling stations for chemical tests, the number of samples tested will be the number of sampling station times two.

12.8.2 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%).

12.9 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.

12.10 Water Quality

Water quality refers to the chemical, physical and biological characteristics of water based on the standards of its usage. It is most frequently used by reference to a set of standards against which compliance, generally achieved through treatment of the water, can be assessed.

12.11 Hydrogeological Survey

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

12.12 Reconnaissance Survey

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

12.13 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 equipment's for the survey is resistivity meter, Magnetometer/Electromagnetic, GPS and Geological compass.

12.13.1 Population Coverage (%)

It is the ration of population served to total population.

12.13.2 Proportion of Water Produced to Meet Demand.

Is the ratio of water produced to water demand.

12.13.3 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 95%.

12.13.4 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.

12.13.5 Percentage of Unaccounted for Water (UFW)

Is the ratio of water distributing 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%.

12.13.6 Area Coverage (%)

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

12.13.7 Percentage of Water Coverage with Kiosks.

Population served with kiosks over a total population times 100.

12.13.8 Water Service Coverage (pop) (%)

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

12.13.9 Water Coverage with Domestic Connections. (%)

Refers to population served with domestic connection over total population times 100.

12.13.10 Billable Water

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

12.13.11 Billing Efficiency (%)

Is defined as the volume of water billed to the customers divided by the volume of water estimated to be distributed. It measures the percentage of water billed over water

produced. This ratio is dependent on waters losses as well as metering accuracy. It is recommended to be greater than (80%).

12.13.12 Daily Water Distribution Per Capita Served

Is an indicator that describes the average daily volume of water distributed per person with either direct access to a domestic connection or to a water kiosk. It does not describe the actual consumption of these customer groups as part of the distributed volume is e.g. consumed by other customer groups or lost through leakages.

12.13.13 Disconnection Ratio

It is the percentage of connections (without kiosks) that are currently reported to be disconnected.

12.14 Non-Revenue Water (NRW)

It is the amount of water that provider produces (or purchases from other entities) minus the amount that is sold to consumers, presented as a percentage of water produced or as an amount per length of the distribution system. NRW can be the result of physical (leaks, overflow) and commercial (illegal connections, collection of revenue) losses. The recommended value is less than 20%.

12.15 Pollute

Means directly or indirectly to alter the physical thermal, chemical, biological or radioactive properties of water so as to render such water less fit for any beneficial purpose for which it is or may reasonably be used or cause a condition which is hazardous or potentially hazardous to public health, safety welfare or to animals, birds, fish or aquatic life, or organism or to plant and "pollution" has corresponding meaning.

12.16 Public Tap

Means any fountain, standpipe, tap, trough, valve or other appliance or structure erected, provided or maintained by or on behalf of (water supply and sanitation authority or a community owned water supply organization) the purpose of supplying water to its consumers.

12.17 Population Coverage (%)

It is the proportion of population served with water to the total population living in the service area.

12.18 Population with Direct Access to Domestic Connection

Is the number of people with direct access to domestic connection. Direct access might comprise all people living on a plot, which is connected to a network and does not include people from neighborhood premises.

12.19 Population with Access to Kiosk

Is the number of people served at a kiosk connection. The kiosk should be owned by the provider

12.20 Water Point

Means a single source of water, which may be a well, a borehole, a tap or a public tap.

12.21 Water Supply

Means the provision of appropriate facilities and services for the sourcing, treatment and distribution of potable water.

12.22 Waterworks

Waterworks means all gathering grounds, off-takes, reservoirs, dams, weirs, tanks, cisterns, tunnels, filter beds, conduits, aqueducts, mains, pipes, meters, fountains, sluices, valves, hydrants, pumps, prime movers and all other structures and appliances used or constructed for the storage, conveyance, supply, measurement or regulation of water, which are used or have been constructed by or on behalf of a water supply and sanitation authority or a community owned water supply organization.

12.23 Waterworks Area

Means any area of land or of water delineated by the Minister as an area connected with the supply of any waterworks.

12.24 Water for Domestic Purposes

It is the use of water solely for the purpose of meeting household and domestic needs and excludes any commercial activities

12.25 Water Point Mapping

It is the process of locating water infrastructure and collecting related information using any available technology, the information that is collected is later on subjected to different uses.

12.26 Water Point Mapping System

It is an integration of hardware, software, methodologies, data, processes and users dedicated to collecting, storing, processing and analyzing water related information and giving feedback for public use.

12.27 Sanitation

This refers to the process of keeping places clean and healthy, especially by providing a sewage system and a clean water supply.

12.28 Sanitation Service Chain

Sanitation Service Chain means all components and processes comprising a sanitation system, from toilet capture and containment through emptying, transport, treatment (in-situ or offsite) and final disposal or end use.

12.29 Improved Sanitation facilities

Are those designed to hygienically separate human excreta from human contact. These include wet sanitation technologies such as flush and pour flush toilets connected to sewers, septic tanks or pit latrines, and dry sanitation technologies such as dry pit latrines with slabs and composting toilets

12.30 Sewer

Means any pipe or conduit other than a drain used, or for use, for the conveyance of sewage.

Sewer systems consist of facilities for collection, pumping, treating and disposing of human excreta and wastewater. Losses that occur during transport and treatment cannot be monitored through household surveys.

12.30.1 Private Sewer

It includes a privately constructed pipe, conduit; underground gutter or channel, other than a building sewer, which may be connected to a private sewerage installation for the conveyance of sewage or trade waste; or for other private purposes and not being part of a public sewerage system vested in or constructed by a water authority potable.

12.30.2 Private Sewerage Installation

Includes privately constructed latrine, septic tank or other sewerage system and all fittings connected thereto but does not include a building sewer.

12.30.3 Sewerage Coverage (%)

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

12.30.4 Sewerage Main Rehabilitation (%)

Is the Length of sewer mains rehabilitated during the year per total sewer mains length.

12.30.5 Sewerage Services Connection Rehabilitation (%)

Is the number of sewer connections replaced or renovated during the year per total number of sewer connections.

12.31 Total Collection

It is a total collection from water and sewerage services including billing of water sales, sewerage, meter rent and other operating income. Collections from non-billing related items, which mean other income, are not considered.

12.31.1 Trade Waste Agreement

Means an agreement between a water authority and any person for the discharge of waste into a sewer or storage or treatment of waste by the water authority, and shall include such terms, manner and periods as the water authority may decide or. as may be prescribed.

12.31.2 Treatment of Collected Wastewater (%)

Is the maximum daily volume of sewerage treated in a treatment plant during the assessment period per maximum daily capacity of the existing treatment plants.

12.31.3 Wastewater Quality Compliance (%)

Is the percentage of the sewerage effluent samples that pass all allowable quality tests as per Tanzanian sewage quality standards.

12.32 Basin

Basin means an area of land where rainfall collects and drain into a common outlet.

12.33 Basic Service Level in Rural Areas

Basic service level in rural areas means a minimum service level of domestic water supply in rural areas of 25 litres of safe water per capita per day through water points located within 400 meters from the furthest homestead and serving 250 persons per outlet.

12.34 Catchment

Catchment means the surface area and underground stratum of land that collects water to supply a source of water.

12.35 Rainwater Harvesting

Rainwater harvesting means a technology used for collecting and storing rainwater from land surfaces, rock catchments or roof tops using simple techniques such as jars and pots as well as more complex techniques such as charcos dams.

12.36 Sewage

Sewage means liquid waste of conveyed in sewers but does not include storm water.

12.37 Sewerage

Sewerage means a network of pipes, pumping stations, and appurtenances that convey sewage from its points of origin to a point of treatment or disposal.

12.38 Surface Water

Surface water means all water flowing over the surface of the ground, or contained in a spring or natural lake or reservoir or swamp and all water contained directly underneath a river bed.

12.39 Trans-Boundary water

Refers to water resources contained within drainage or river basins which cross the geographical boundaries of and are shared with more than one sovereign country.

12.40 Waste Water

Wastewater means liquid waste of excremental and non-excremental nature but does not include storm water.

12.41 Water Resources

Refers to natural resources of water that are potentially useful for humans. For example; water course, surface water, ground water and estuary water.

12.42 Water Source

Refers to bodies of water such as rivers, streams, lakes, reservoirs, springs, and ground water that provide water to public drinking-water supplies and private wells.

12.43 Watershed

Watershed means an area of land where rainfall collects and drain into a wetland, stream, river and lake.

12.44 Joint Monitoring Programme (JMP) Service Ladder

The is a framework developed by organizations like the World Health Organization (WHO) and UNICEF to monitor and assess access to water and sanitation services around the world. It classifies access to water and sanitation into different levels or "ladders," ranging from basic services to inadequate or no services, based on the quality, reliability, and accessibility of these services. The JMP service ladders are used to benchmark and compare service levels across countries. These have been updated and expanded to facilitate enhanced global monitoring of drinking water, sanitation and hygiene.

The JMP Service Ladder is a valuable tool for tracking global progress toward ensuring universal access to clean water and sanitation, as outlined in the United Nations' Sustainable Development Goals.

12.45 JMP Ladders for Water, Sanitation and Hygiene (WASH) at Household

JMP service ladder for WASH at household is based on drinking water, sanitation and hygiene.

12.45.1 Drinking Water Service Ladder for Households

Building off the classification of drinking water sources as improved or unimproved, the JMP has devised a five-rung drinking water service ladder to benchmark and compare progress towards achieving Sustainable Development Goal (SDG) targets (WHO/UNICEF 2018)

a) **Safely Managed:** Drinking water from an improved water source that is located on premises, available when needed and free from faecal and priority chemical contamination.
b) **Basic:** Drinking water from an improved source, provided collection time is not more than 30 minutes for a round trip, including queuing
c) **Limited:** Drinking water from an improved source for which collection time exceeds 30 minutes for a round trip, including queuing
d) **Unimproved:** Drinking water from an unprotected dug well or unprotected spring
e) **Surface water**: Drinking water directly from a river, dam, lake, pond, stream, canal or irrigation canal,

Improved sources of drinking water at household level include piped water, public taps, standpipes, tube wells, boreholes, protected dug wells and springs, rainwater, water delivered via a tanker truck or a cart with a small tank, and bottled water.

12.45.1 Sanitation Service Ladder for Households

The JMP has also devised a five-rung sanitation service ladder to benchmark and compare progress towards achieving SDG targets related to sanitation.

a) **Safely Managed**: Use of improved facilities that are not shared with other households and where excreta are safely disposed of in situ or transported and treated offsite
b) **Basic Sanitation**: Use of improved facilities that are not shared with other households
c) **Limited Sanitation:** Use of improved facilities shared between two or more households
d) **Unimproved sanitation:** Use of pit latrines without a slab or platform, hanging latrines or bucket latrines
e) **Open Defecation**: Disposal of human faeces in fields, forests, bushes, open bodies of water, beaches or other open spaces, or with solid waste

Improved sanitation facilities include flush/pour flush toilets that flush water and waste to a piped sewer system, septic tank, pit latrine, or unknown destination; ventilated improved pit (VIP) latrines; pit latrines with slabs; and composting toilets.

Disposal of excreta from on-site facilities

- **Excreta safely disposed of in situ**: Includes septic tanks and latrines in which waste is buried in a covered pit, waste is never emptied, and it is unknown if waste is ever emptied.
- **Excreta disposed of unsafely**: Includes septic tanks and latrines in which waste is emptied to uncovered pits, open ground, a water body, or other locations.
- **Excreta removed for treatment:** Includes septic tanks and latrines in which waste is removed by a service provider to a treatment plant or an unknown location or is removed by a non-service provider to an unknown location.

12.45.2 Hygiene Service Ladder for Households

a) **Basic:** Availability of a handwashing facility on premises with soap and water
b) **Limited:** Availability of handwashing facility on premises without soap and water
c) **No Facility:** No handwashing facility on premises

12.46 JMP Service Ladders for WASH in Health Care Facilities (HCFs)

JMP service ladder for WASH at HCFs is based on water, sanitation, hygiene, health care waste and environmental cleaning.

12.46.1 Water Service Ladder for Health Care Facilities

a) **Advanced service:** Safely managed drinking water (safe from chemical and biological parameters (standard FRC and coliform laboratory analysis)
b) **Basic services**: Water is available from an improved source located on premises.
c) **Limited Services**: An improved water source is within 500 meters of the facility, but not all requirements for basic service are met.
d) **No service:** Water is taken from unprotected dug wells or springs, or surface water sources; or an improved source that is more than 500 m from the facility; or the facility has no water source.

12.46.2 Sanitation Service Ladder for HCFs

a) **Advanced Service Sanitation**: On site chemical treatment or directing to the treatment municipal plant.
b) **Basic services sanitation**: Improved sanitation facilities are usable with at least one toilet dedicated for staff, at least one sex-separated toilet with menstrual hygiene facilities, and at least one toilet accessible for people with limited mobility.
c) **Limited**: At least one improved sanitation facility, but not all requirements for basic service are met.
d) **No service**: Toilet facilities are unimproved (pit latrines without a slab or platform, hanging latrines and bucket latrines), or there are no toilets or latrines at the facility.

12.46.3 Hygiene Service Ladder for HCFs

a) **Advanced Service**: All points of care should have automatic hand washing facilities (running water with soap or automatic hand rub/ sanitizers)
b) **Basic services**: Functional hand hygiene facilities (with water and soap and/or alcohol-based hand rub) are available at points of care, and within 5 meters of toilets.
c) **Limited:** Functional hand hygiene facilities are available at either points of care or toilets, but not both.
d) **No service**: No functional hand hygiene facilities are available at either point of care or toilets.

12.46.4 Health Care Waste Service Ladder for HCFs

a) **Advanced services:** Autoclaving of waste before disposal or using of high-tech incinerator
b) **Basic services**: Waste is safely segregated into at least three bins and sharps and infectious waste are treated and disposed of safely.
c) **Limited:** There is limited separation and/ or treatment and disposal of sharps and infectious waste, but not all requirements for basic service are met.
d) **No service:** There are no separate bins for sharps or infectious waste, and sharps and/or infectious waste are not treated/disposed of

12.46.5 Environmental Cleaning Service Ladder for HCFs

a) **Advanced Services:** Availabilities of cleansing services
b) **Basic services:** Basic protocols for cleaning available, and staff with cleaning responsibilities have all received training.
c) **Limited:** There are cleaning protocols, or at least some staff have received training on cleaning.
d) **No services**: No cleaning protocols are available, and no staff have received training on cleaning

12.47 JMP Service Ladders for WASH in School

JMP service ladder for WASH in schools is based on drinking water, sanitation, hygiene and hand washing facilities

12.47.1 Drinking Water Service Ladder for Schools

a) **Advanced service:** Additional criteria may include quality, quantity, continuity, and accessibility to all users.
b) **Basic service:** Drinking water from an improved source and water is available at the school at the time of the survey.
c) **Limited service:** Drinking water from an improved source but water is unavailable at the school at the time of the survey.
d) **No service:** Drinking water from an unimproved source or no water source at the school.

Improved sources include piped water, boreholes or tube wells, protected dug wells, protected springs and packaged or delivered water. **Unimproved sources** include unprotected wells, unprotected springs and surface water.

12.47.2 Sanitation Service Ladder for Schools

a) **Advanced service:** Additional criteria may include student per toilet ratios, menstrual hygiene facilities, cleanliness, accessibility to all users, and excreta management systems.
b) **Basic service:** Improved sanitation facilities at the school that are single-sex and usable (available, functional and private) at the time of the survey.
c) **Limited service:** Improved sanitation facilities at the school that are either not single-sex or not usable at the time of the survey.
d) **No service:** Unimproved sanitation facilities or no sanitation facilities at the school.

Improved facilities include flush/pour flush toilets, ventilated improved pit latrines, composting toilets and pit latrines with a slab or platform. Unimproved facilities include pit latrines without a slab or platform, hanging latrines and bucket latrines

12.47.3 Hygiene Service Ladder for Schools

a) **Advanced service:** Additional criteria may include hygiene education, group handwashing, menstrual hygiene materials, and accessibility to all users
b) **Basic service:** Handwashing facilities with water and soap available at the school at the time of the survey
c) **Limited service:** Handwashing facilities with water but no soap available at the school at the time of the survey
d) **No service:** No handwashing facilities available or no water available at the school

Handwashing facilities may be fixed or mobile, and include a sink with tap water, buckets with taps, tippy-taps and jugs or basins designated for handwashing. Soap includes bar soap, liquid soap, powder detergent and soapy water but does not include ash, soil, sand or other handwashing agents.

CHAPTER THIRTEEN
TRADE, TRANSPORT, TOURISM AND INTERNATIONAL MIGRATION STATISTICS

13.0 Introduction

Trade, Transport, Tourism, and International Migration Statistics are key data sets used to analyze and monitor the movement of goods, services, people, and capital across borders. These statistics are essential for understanding the dynamics of global economies and shaping international policies. Here's an overview of each:

Together, these statistics help governments, international organizations, and businesses understand and manage the complex global interactions that shape economies and societies.

13.1 Trade Statistics

These involve the collection and analysis of data related to the exchange of goods and services between countries. Trade statistics include information on imports, exports, tariffs, and trade balances, providing insights into economic relationships, global supply chains, and market trends. Trade Statistics are compiled according to International Standards and United Nations recommendations, regard to methodology, concepts and definitions and standard classifications.

The main sources of external trade data are Customs Administration. Customs Data are captured electronically using Tanzania Customs Integrated System called TANCIS. Customs Data is then processed using Excel and Access programs to produce necessary statistical tables for the country's foreign trade.

13.2 Distributive Trade

Distributive Trade refers to wholesale and retail trade, which can be defined as an activity comprising purchase of goods and their disposal by way of sale without intermediate physical transformation of goods. Distributive trade is an important economic activity providing employment to a significant part of the population and contributing greatly to the GDP.

13.2.1 Wholesale Trade

Wholesale trade is the resale (sale without transformation) of new and used goods to retailers, business-to-business trade (for example, 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.

Wholesalers can be thought of as "middle men" who supply goods to industrial or business customers, such as retailers, restaurants, manufacturers, or construction companies

13.2.2 Retail Trade

Retail trade is the resale (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, e-commerce retailers, mail - order houses, hawkers and peddlers, consumer cooperatives, auction houses etc. The main characteristic of retailers is that they sell goods primarily to consumers or households.

13.3 Trade Establishment

A trade establishment is an economic unit engaged in wholesale or retail trade of goods within the national territory under a single ownership or control, i.e. under a single legal entity at a single fixed location. In other words, a trade establishment is that establishment having three characteristics: economic activity (trading), legal status (registered one) and fixed location (housed in fixed structure).

13.4 Foreign Trade Statistics

Foreign trade statistics generally refer to the flow of goods between the statistical territory of the country 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.

13.4.1 Imports

Refers to an inflow of goods into a statistical territory (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.

13.4.2 Exports

Refers to outflows of goods from a statistical territory (country)

a) **Domestic Exports**: The term domestic export refers to exportation of goods produced or grown in a country 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.

13.4.3 Gross Weight

It refers to actual weight of goods including packaging.

13.4.4 Net Weight

Refers to actual weight of goods excluding packaging.

13.4.5 Packaging

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

13.4.6 Standard Measurement Unit

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

13.4.7 Supplementary Unit

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

13.4.8 Country of Consignment

Refers to the country from which the goods were initially dispatched to the importing state. The term Country of Consignment in the case of exports means the country to which goods are dispatched by the exporting country, without (as far as it is known at the time of exportation) being subject to any commercial transactions or other operations which change the legal status of the goods taking place in any intermediate country.

13.4.9 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.

13.4.10 Country of Destination

The term Country of Consignment in the case of exports means the country to which goods are dispatched by the exporting country, without (as far as it is known at the time of exportation) being subject to any commercial transactions or other operations which change the legal status of the goods taking place in any intermediate country. It is the final known country to which exported goods were dispatched.

13.4.11 Country of Last Consignment

It is the last country where the goods were loaded.

13.4.12 Country of First Destination

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

13.4.13 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

13.4.14 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.

13.4.15 Cost

Refers to the authenticated invoice value.

13.4.16 Freight

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

13.4.17 Insurance

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

13.5 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.

13.5.1 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.

13.5.1.1 Motorcycle

Two-wheeled Road motor vehicle with or without side-car, including motor scooter, or three wheeled road motor vehicle not exceeding 400 kg (900 lb) unladed weight. All such vehicles with a cylinder capacity of 50 cc or over are included, as are those under 50 cc which do not meet the definition of moped.

13.5.1.2 Passenger Car

Road motor vehicle, other than a motor cycle, intended for the carriage of passengers and designed to seat no more than nine persons (including the driver). The term "passenger car" therefore covers micro cars (need no permit to be driven), taxis and hired passenger cars, provided that they have fewer than ten seats. This category may also include pick-ups.

13.5.1.3 Light or Semi-Commercial Vehicles

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

13.5.1.4 Commercial Vehicle Trucks

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

13.5.1.5 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.

13.5.1.6 Other Vehicles

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

13.5.1.7 Commercial Motor Vehicles (CMV)

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

13.5.2 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.

13.5.3 Condition of Paved Road Network

a) **Good Condition:** Road in good conditions include paved roads, largely free of defects requiring only routine maintenance and perhaps surface treatment.
b) **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.
c) **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.

13.5.4 Condition of Unpaved Road Network

a) **Good Condition:** Road in a good condition includes unpaved roads, largely free of defects requiring only routine maintenance and localized repair.
b) **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.
c) **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.

13.6 Aviation Statistics / Air transport

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

13.6.1 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.

13.6.2 Domestic Traffic

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

13.6.3 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.

13.6.4 Aircraft Movements

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

13.6.5 Private Movements

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

13.6.6 Charter Movements

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

13.6.7 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.

13.6.8 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.

13.6.9 Scheduled Flights

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

13.6.10 Non-Scheduled Flights

Refers to flight performed on an irregular basis.

13.6.11 Passengers Embarked and Disembarked

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

13.6.12 Transit Passengers

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

13.6.13 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.

13.6.14 Revenue Passengers

Refers to passengers paying full fares.

13.6.15 Passenger Load Factor

Is equal to (Passenger-km performed)/(Passenger-km available) x 100

13.6.16 Weight Load Factor

Is equal to (Tone-km performed)/(Tone-km available) x 100.

13.6.17 Aircraft Movement

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

13.7 Shipping Statistics

13.7.1 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.

13.7.2 Container Traffic

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

13.7.3 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.

13.7.4 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.

13.7.5 Modal Split

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

13.7.6 Ship turns -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.

13.7.7 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.

13.7.8 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 hall together with those closed-in spaces above deck available for cargo stores, passenger or crew.

13.7.9 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.

13.7.10 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.

13.7.11 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.

13.7.12 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.

13.8 Railway Statistics

13.8.1 Train

One or more railway vehicles hauled by one or more locomotives or railcars, or one railcar travelling alone, running under a given number or specific designation from an initial fixed point to a terminal fixed point. 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.

13.8.2 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.

13.8.3 Passenger Train

A train primarily intended for conveyance of passengers.

13.8.4 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.

13.8.5 Block Train

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

13.8.6 Mixed Train

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

13.8.7 Train Kilometers

Unit of measure representing the movement of a train over one kilometre. The distance to be covered is the distance actually run.

13.8.8 Tonne kilometers

Unit of measure representing the movement of one tonne available in a wagon when performing services for which it is primarily intended over one kilometre. The distance to be considered is that actually run. Shunting and other similar movements are excluded.

13.8.9 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.

13.8.10 Wagon Kilometers

Unit of measure representing any movement of a wagon loaded or empty over a distance of one kilometer. The distance to be considered is that actually run. Shunting and other similar movements are excluded. All wagon journeys are included irrespective of the ownership of the wagon.

13.8.11 Gross Tonnes

Unit of measure representing the movement over a distance of one kilometer of one tonne of railway vehicle including the weight of tractive vehicle. Included are weights of: tractive unit, hauled railway vehicle and its load. Passengers and their luggage are excluded. Shunting and other similar movements are excluded.

13.8.12 Net Tonnes

Unit of measure representing the movement over a distance of one kilometer of one tonne of hauled vehicles (and railcars) and contents. The weight of railcars is included, whereas the weight of locomotives is excluded. Passengers and their luggage are

excluded. Shunting and other similar movements are excluded. Refers to weight in tones of the consignment alone.

13.8.13 Locomotive Reliability

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

13.8.14 Locomotive Utilization

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

13.8.15 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.

13.8.16 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 tonne kilometers * 100.

13.8.17 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.

13.9 Tourism Statistics

These focus on the movement of people across borders for leisure, business, or other purposes. Tourism statistics track the number of international tourists, expenditure, and patterns of tourism, providing valuable insights into economic impacts, trends, and the development of tourism industries.

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:

13.9.1 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.

13.9.2 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

13.9.3 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 Domestic tourism Inbound tourism Internal tourism Outbound tourism	Visitor Tourist Inbound tourist Domestic tourist Same day visitor	Traveler Usual environment Country of residence Duration of the visit Purpose of visit Tourism accommodation

To be outside the "usual environment"
The person should travel more than 40 kilometers 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.

13.9.4 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.

13.9.5 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.

13.9.6 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.

13.9.7 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'.

13.9.8 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.

13.9.9 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.

13.9.10 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'.

13.9.11 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.

13.9.12 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.

13.9.13 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.

13.9.14 Package Tours

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

13.9.15 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.

13.9.16 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 persons 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.

13.9.17 Town Hotel

A commercial establishment, located within or near an urban centre, where the majority of clients are business and/or transit travellers.

13.9.18 Vacation Hotel

A commercial establishment, located within or near a holiday attraction area, normally in sub urban areas and in which the majority of clients are holiday makers or leisure travellers.

13.9.19 Lodge

A commercial establishment, located within or near natural habitat rich in fauna and flora, normally in or near conservation areas, in which the majority of clients are leisure or adventure seekers.

13.9.20 Tented Camp

A commercial establishment of permanent, semi -permanent and/or mobile tented facilities usually located close to or within popular areas such as beaches, rivers, lakes, protected areas, national parks, game reserves or forests.

13.9.21 Villas and Cottages

Refer to commercial establishments, located in sub-urban or country side areas and characterized by being autonomous, semi-detached or in a cluster to let units for holiday accommodation. They may or may not provide full hotel services and facilities. The establishments include residential premises used for holiday making by owners, friends or relatives.

13.9.22 Serviced Apartments

Commercial establishment's offering facilities and services like a hotel for Guests staying a few days or weeks. They currently represent the trendiest place where to stay for corporate, leisure travelers, people relocating to new cities and those seeking transit accommodations. By nature, they have catering facilities in form of kitchenette which offers Guests the flexibility of preparing own meals.

13.9.23 Motel

A commercial establishment, located along a highway or motor way, catering mainly to motorists and other highway and road users.

13.9.24 Camping /Caravan Site

Refers to an area set aside for camping and providing appropriate safety, security, running water and other hygiene facilities and services.

13.9.25 Guest House

Refers to a commercial establishment providing lodging, with or without meals, and other modest and limited Guest services.

13.9.26 Home Stay

A form of tourism and/or study abroad programme that allows the visitor to rent a room from a local family. The house is usually part of the normal residence of the owner but with the business of accommodating paying Guests. This arrangement involves staying in a furnished, private bedroom and a shared living room.

13.9.27 Hostel

A supervised lodging place for travelers and/or students, especially young people, providing budget-oriented accommodation, usually with shared rooms, in double, triple or dormitory arrangements.

13.9.28 Eco-lodge

A type of tourism commercial establishment, providing lodging, meals and other Guest facilities and services. It is deliberately designed, constructed and operated in such a way as to have least negative impact on the natural environment in which it is situated.

13.9.29 Farm Stay

A type of tourism commercial establishment, providing shared family unit or separate self-contained lodging, meals and other Guest facilities and always situated on a farm, with involvement in farm activities, tours and rural life experiences as part of the package.

13.9.30 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.

13.9.31Arrivals

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.

13.9.32 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.

13.9.33 Duration of Stay

Refers to the time spent in the place or country.

13.9.34 Average Length of Stay

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

13.9.35 Mode of Transport

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

13.9.36 Number of Rooms

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

13.9.37 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.

13.9.38 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.

13.9.39 Room Occupancy Rate

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

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

13.9.40 Bed Occupancy Rate

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

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

13.9.41 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.

13.9.42 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.

13.10 International Migration Statistics

These refer to the data on the movement of people across borders for reasons such as employment, education, asylum, or family reunification. 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. Migration statistics help monitor trends in population movements, the impacts of migration on labor markets, and demographic changes in both sending and receiving countries.

13.10.1 International Migration

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

13.10.2 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.

13.10.3 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 laissers -passer of boarder pass.

13.10.4 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 boarders within a certain specific country.

13.10.5 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).

13.10.6 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.

13.10.7 Emigrant

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

13.10.8 Permanent Emigrants

Refers to Tanzanian residents who leave Tanzania permanently.

13.10.9 Temporary Emigrants

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

13.10.10 Residents

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

13.10.11 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.

13.10.12 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-enumerated from within the place visited.

13.10.13 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.

13.10.14 Visitors on Business

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

13.10.15 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.

13.10.16 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.

13.10.17 Country of Departure

Refers to the country where the recent journey started.

13.10.18 Country of Final Destination

Refers to the country where the final journey will end.

13.11 Wildlife Statistics

13.11.1 Authorized 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.

13.11.2 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).

13.11.3 Community- Based Conservation

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

13.11.4 Core Protected Areas

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

13.11.5 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.

13.11.6 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).

13.11.7 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.

13.11.8 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.

13.11.9 General Management Plan

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

13.11.10 Habitat

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

13.11.11 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.

13.11.12 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 from CBD).

13.11.13 Land use

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

13.11.14 Local Communities

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

13.11.15 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.

13.11.16 Management Authority

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

13.11.17 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.

13.11.18 Migration

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

13.11.19 Migratory Route

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

13.11.20 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.

13.11.21 National Game

Refers to animal species declared so by the minister.

13.11.22 Natural Resources

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

13.11.23 Protected Area

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

13.11.24 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.

13.11.25 Ramsar Site

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

13.11.26 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).

13.11.27 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 meters at low tide lying within the wetlands.

13.11.28 Wildlife Protected Areas

Refers to National Parks, Game Reserves, Ngorongoro Conservation Area, Game controlled Area and Wetland Reserves.

13.11.29 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.

13.11.30 Wetlands Resource

Refers to all resources including soils, water, fauna and flora found in wetlands whose meaning is ascribed in this policy.

13.11.31 Wildlife Resources

Means resources as described in the meaning of wildlife.

13.11.32 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.

13.11.33 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.

13.11.34 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.

13.11.35 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.

13.11.36 Zoo

Refers to a place where wild animals are kept in captivity, normally in cages or padlocks for recreation, research and educational purposes.

13.12 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.

13.12.1 Forest Administration

Comprises Government of Tanzania administration of forestry.

13.12.2 Forest Authorities

Comprise Government of Tanzania authorities of forestry.

13.12.3 Forest Land

Refers to an area of land covered with trees, grass and other vegetation but dominated by trees.

13.12.4 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.

13.12.5Forest Product

Refers to all wood and non-wood forest products.

13.12.6 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.

13.12.7 Forest Resources

Refers to all wood and non-wood-based resources in the forests.

13.12.8 Agro-Forestry

Refers to practice where agricultural crops and trees are intercropped on one farm land.

13.12.9 Central Government Forest Reserve

Refers to forest area administered and managed by the central government.

13.12.10 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.

13.12.11 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.

13.12.12 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.

13.12.13 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.

13.12.14 Industrial Plantation

Refers to an area of land planted with trees for industrial use.

13.12.15 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.

13.12.16 License

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.

13.12.17 Livestock

Refers to cattle, sheep, goats, pigs, horses, donkeys, mules and all other domesticated animals and their young.

13.12.18 Local Authority

Refers to a district council, city council, municipal council, town council, local council and village council.

13.12.19 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.

13.12.20 National Tree

Refers to any tree declared by order to be a national tree or trees reserved for a specific reason.

13.12.21 Nature Reserve

Refers to a forest reserve legally declared for nature conservation of genetic resources and for scientific studies.

13.12.22 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.

13.12.23 Tenure

Refers to holding of land or other property through arrangements such as leasehold, freehold, customary ownership, and other such forms of holding.

13.12.24 Traditional Forest

Refers to a forest reserve governed under customary law.

13.12.25 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.

13.12.26 Village Forest reserve

Refers to a forest which is owned and managed by the village government.

13.13 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.

13.13.1Resident, 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.

13.13.2 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.

13.13.3 Categories

Flows falls under three major categories namely, transactions, holding gains or losses 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 losses (also known as valuation changes or capital gain/loss) 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.

13.13.4 Stocks

Stock refers to position at a point in time (e.g end of year position). Stocks can be divided into assets and liabilities.

13.13.5 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.

13.13.6 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.

13.13.7Asset

An asset is anything owned, whether in possession or by right to take possession, by a person or a group acting together.

13.13.8Net Asset Value

This is the difference between assets and liabilities

13.13.9Book Values

This is the sum of equity capital + reinvested earnings + other reserves

13.13.10 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.

13.13.11 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).

13.13.12 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.

13.13.13 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.

13.13.14 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)}.

13.13.15 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.

13.13.16 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.

13.13.17 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.

13.13.18 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.

13.13.19 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.

13.13.20 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.

13.13.21 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 reliabilities of buyers of goods and services. In addition, this concept includes advance payments for work in progress, or to be undertaken, associated with such transactions. Most are short term.

CHAPTER FOURTEEN
ENVIRONMENTAL STATISTICS

14.0 Environment

Environment refers to the physical surroundings of human beings, including air, land, water, climate, sound, light, taste, micro-organisms; the biological factors of animals and plants; cultural resources and socio-economic; aesthetics factors, including both the natural and built environment and the way they interact. (National Environmental Policy, 2021).

14.1 Environmental Statistics

Refers to the application of statistical knowledge to environmental science aiming to conduct the qualitative and quantitative analysis of the environment and provide information of natural aspects and human factors. Tanzania conducts environmental statistics in three areas of Environment namely; Climate change management; pollution management; and biodiversity conservation (variety of living species on earth including plants, bacteria, animals, fungi etc).

14.1.1 Afforestation

Is the process of planting large number of the same or different tree species on land which has few or no trees on it**.**

14.1.2 Reforestation

Refers to the process of replanting or regenerating forest in an area where the number of trees has been decreasing or destroyed for the benefits of mankind.

14.2 Pollution

Pollution is the introduction of harmful materials into the environment. These harmful materials are called pollutants. Pollutants can be natural, such as volcanic ash. They can also be created by human activity, such as trash or runoff produced by factories.

14.2.1 Air Pollution

Refers to the release of pollutants into the air at a concentration that interferes with human health or welfare, or produces other harmful environmental effects that are detrimental to the planet as a whole

14.2.2 Water Pollution

Contamination of water bodies such as rivers, lakes, oceans, and groundwater by harmful chemicals or waste materials. This can occur through various sources such as industrial activities, agricultural runoff, sewage discharge, and oil spills.

14.2.3 Physical Pollution

Physical pollution refers to the presence of solid waste, litter, or debris in the environment that can negatively impact ecosystems and human health. This type of pollution includes items such as plastic bags, bottles, tires, and other man-made materials that are not properly disposed of and accumulate in natural habitats.

14.2.4 Noise Pollution

Noise pollution is considered to be any unwanted or disturbing sound that affects the health and well-being of humans and other organisms. Sound is measured in decibels.

14.3 Catchments Area

The area of land that collects water and from which water flows into a river or reservoir.

14.4 Climate Change

Is the long-term change in the average weather patterns attributed directly or indirectly to natural and human activity that alters the composition of the global atmosphere and that is in addition to natural climate variability observed over comparable time periods.

14.5 Deforestation

Is the process in which large area of forest lands are cleared or removed from an established forest for various human activities.

14.6 Desertification

Refers to the process by which fertile land becomes desert, typically as a result of drought, deforestation or inappropriate agriculture activities.

14.7 Disposal of Waste

Refers to the collection, sorting, transport and treatment of waste as well as its storage and tipping above or underground; the transformation operations necessary for its re-use, recovery or recycling.

14.8 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.

14.8.1 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.

The general equation for emission is: E =A x EF x (1-ER/100) where: E = emissions, A =Activity rate, EF = emission factor, and ER =overall emission reduction efficiency, %.

14.8.2 Emission Standard

It is the maximum amount of a polluting discharge legally allowed from a single source, mobile, or stationary.

14.9 Environmental Costs

Costs connected with the actual or potential deterioration of natural assets due to economic activities. Examples include the costs of cleaning up oil spills or cleaning a polluted river. A company may also incur fines or other penalties or lose sales if it acquires a poor environmental reputation.

14.9.1 Environmental Degradation

Refers to deterioration of the natural environment due to various human activities, including pollution, deforestation, desertification, loss of biodiversity, climate change, and other harmful practices that degrade the quality of air, water, soil, and ecosystems.

14.9.2 Environmental Expenditures

Are the costs incurred by the government or organizations in order to protect, preserve, or improve the environment. These expenses can include investments in pollution control technology, compliance with environmental regulations, waste management, and conservation projects. Companies may also spend money on research and development of sustainable practices or renewable energy sources.

14.9.3 Environmental Indicators

Environmental indicators are measurements or metrics used to track changes in the environment, such as air and water quality, loss of biodiversity, and climate change.

14.9.4 Environmental Quality

Environmental quality refers to the overall health of the environment, including air, water, soil, and ecosystems. It encompasses the presence of pollutants and contaminants, as well as the overall biodiversity and sustainability of the environment.

14.9.5 Environmental Audit

Refers to the systematic documented and objective evaluation of how well environmental organization, management and equipment perform in conserving or preserving the environment conducted in a certain period of time normally a year/half year.

14.9.6 Environmental Disease

Refers to any illness or health condition that is caused or exacerbated by environmental factors, such as pollution, exposure to toxic substances, or lack of access to clean air and water.

14.9.7 Environmental Impact

Refers to the changes in the natural or built environment, resulting directly from an activity, that can have adverse effects on the air, land, water, fish, and wildlife or the inhabitants of the ecosystem.

14.9.8 Environmental Impact Assessment (EIA)

Refers to evaluation conducted to assess the potential consequences of a proposed project or action on the environment and to identify ways to mitigate or minimize those impacts.

14.10 Energy Sources

Refers to resources used to generate power. Examples of energy sources include fossil fuels (such as coal, oil, and natural gas), nuclear power, hydroelectric power, wind power, solar power, biomass, and geothermal energy.

14.11 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.

14.12 Exhaust Gases

Refer to the byproducts produced when fuel is burned in an internal combustion engine. These gases include carbon dioxide, carbon monoxide, nitrogen oxides, and other pollutants.

14.13 Fuel wood

Refers to the process whereby wood is used as a source of fuel for heating and cooking. It is a common and traditional form of energy used in many parts of the world, especially in rural and developing areas where access to other forms of energy may be limited.

14.14 Fossil Fuels

Refers to natural resources formed from the remains of ancient plants and animals that have been buried and exposed to heat and pressure over millions of years. These fuels are non-renewable resources, meaning that they cannot be easily replaced once they are depleted.

14.15 Geologic Hazard

Refers to a natural phenomenon that poses a risk or threat to humans, infrastructure, or the environment due to geological processes. These hazards can include earthquakes, landslides, volcanic eruptions, tsunamis, sinkholes, and other events that result from the movement of Earth's tectonic plates or other geological forces.

14.16 Greenhouse Effect

Warming of the earth's atmosphere caused by a build-up of carbon dioxide and other greenhouse gases that act like a pane of glass in a greenhouse, allowing sunlight to pass through and heat the earth but preventing a counterbalancing loss of heat.

14.17 Habitat

Natural environment in which an organism or species lives and thrives. It includes the physical characteristics of the environment, such as climate, soil, and vegetation, as well as other living organisms that may interact within the same space.

14.18 Hazardous Waste

Wastes that, owing to their toxic, infectious, radioactive or flammable properties pose a substantial actual or potential hazard to the health of human and other living organisms and the environment.

14.19 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.

14.20 Hydrocarbons

Compounds of hydrogen and carbon in various combinations which are present in petroleum products and natural gas. Some hydrocarbons are major air pollutants, some may be carcinogenic and other contribute to photochemical smog.

14.21 Household waste

Waste generated by individuals and families in their homes as a result of daily activities such as cooking, cleaning, and personal hygiene. It includes a wide range of materials, such as food scraps, packaging, paper, glass, plastic, metal, textiles, and other items that are discarded after being used or consumed.

14.22 Indoor Air Pollution

This refers to the presence of harmful pollutants or contaminants in the air inside buildings or enclosed spaces. These pollutants can come from various sources such as cooking, heating, tobacco smoke, cleaning products, paint, and building materials.

14.23 Industrial waste

Industrial waste is unwanted or residual materials that result from industrial activity. There are several types of industrial waste, and while some are considered non-hazardous, some types are classified as hazardous.

14.24 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.

14.25 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.

14.26 Overgrazing

The excessive consumption of vegetation by livestock normally caused by keeping large number of animals in a small area and in a long period of time, which can lead to the degradation of grassland and other ecosystems.

14.27 Ozone

Ozone is a molecule composed of three oxygen atoms (O3) that occurs naturally in the earth's upper atmosphere, known as the stratosphere. It plays a crucial role in protecting life on earth by absorbing most of the sun's harmful ultraviolet (UV) radiation.

14.27.1 Ozone Depletion

Decrease in the concentration of ozone (O3) in the stratosphere, particularly in the ozone layer. This depletion is typically caused by the release of harmful chemicals, such as chlorofluorocarbons (CFCs), into the atmosphere.

14.28 Carbon Business/ Trading

Is the use of a marketplace to buy and sell carbon credits that allow companies or other parties to emit a certain amount of carbon dioxide and methane.

14.28.1 Carbon Monitoring

Refers to tracking how much carbon dioxide or methane is produced by a particular activity at a particular time, which affects the ozone layer and increase in environmental pollution.

14.28.2 Carbon credits (carbon offsets)

Are tradable permits or certificates that represent a specific quantity of greenhouse gas emissions, typically one metric tonne of carbon dioxide equivalent (CO2e).

14.28.3 International carbon standards

Are the standards which define the rules and requirements for generating and trading carbon credits. Example of recognized standards include; Clean Development Mechanism (CDM); and Climate Community Biodiversity standards (CCB.

14.29 pH Value

Is a measure of the acidity or alkalinity of a solution. It is a scale that ranges from 0 to 14, with 7 being considered neutral. A pH value below 7 indicates acidity, while a pH value above 7 indicates alkalinity.

14.30 Sewage

Waste matter, including human waste, laundry waste, and industrial waste, that is carried away in sewers and drains for disposal or treatment. It is typically a mixture of water and various contaminants and pollutants.

14.31 Vegetation Cover

The presence and density of plant life on the Earth's surface. It includes all types of plants, from grasses and shrubs to trees and forests. Vegetation cover plays a crucial role in various ecosystems, providing habitat for wildlife, regulating water cycles, reducing soil erosion, and contributing to the overall health of the environment.

14.32 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 analyzed at three levels which are: species, genetics and ecosystems.

14.33 Ecosystem

Is a biological environment consisting of all the organisms living in a particular area, as well as all the non-living 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.

14.33.1 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.

14.33.2 Biosphere

Zone of life on Earth where living organisms exist. It includes all of Earth's ecosystems, such as the atmosphere, the lithosphere (the solid, outermost shell of Earth), and the hydrosphere (all the water on Earth).

14.33.3 Drought

Prolonged absence or marked deficiency of precipitation which may contribute to desertification.

14.33.4 Effluent

Liquid waste product (whether treated or untreated), discharge from an industrial process or human activity that is discharged into the environment.

14.33.5 Logging

Process of harvesting trees, sawing them into appropriate lengths and transporting them to a sawmill.

14.33.6 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.

14.33.7 Municipal Wastes

Wastes produced by residential, commercial and public services sectors that are collected by local authorities for treatment and/or disposal in a central location.

14.33.8 Natural Disaster

Sudden calamitous event as in the case of earthquakes, tsunamis, floods, volcanic eruption, cyclones and landslide or ongoing misfortune as in conditions or processes such as drought and desertification.

14.33.9 Ocean Dumping

Deliberate disposal of hazardous wastes at sea from vessels, aircraft, platforms or other human-made structures.

14.33.10 Open Dump

Uncovered site used for disposal of waste without environmental controls.

14.33.11 Overgrazing

Grazing by livestock or wildlife to the point where the grass cover is depleted, leaving bare, unprotected patches of soil.

14.33.12 Natural Resources

Materials, substances and organisms occurring in nature which can be utilized for socio-economic gains or conservation including light, air, water, plants, animals, soil and minerals.

14.33.13 Beach Management Unit

Beach management unit means a group of stakeholders in a fishing community whose main function is management, conservation and protection of fish in their locality in collaboration with the government.

14.33.14 Blue Economy

Refers to the sustainable use of ocean resources for economic growth, improved livelihoods, and jobs while preserving the health of ocean ecosystem.

CHAPTER FIFTEEN
LANDS, HOUSING AND HUMAN SETTLEMENTS STATISTICS

15.0 Introduction

Lands in Tanzania are divided into three parts that are reserved land, village land and general land. General and village lands are under Land Caps 113 and 114 respectively and compose the following statistics certificate of right of occupancy, certificates of customary right of occupancy certificate of village land, cadastral survey, land, land use plan, land rent, village boundary and district land and housing tribunal.

Housing sector in Tanzania falls under the National Human Settlements Policy of 2000 and has the following statistics, dwelling house, housing and dwelling unit, housing unit, temporary housing unit, temporary dwelling unit, semi-permanent dwelling units, permanent dwelling units, durable materials, durable wall materials, non-durable wall materials, non-durable flooring materials, building, residential building, non-residential building, room, kitchen, toilet and a flush toilet. National Human Settlements Policy of 2000.

15.1 Land Statistics

Data and quantitative information related to land, including its distribution, use, ownership, tenure, and other relevant metrics. These statistics can encompass a wide range of aspects such as land area, land use patterns (agricultural, residential, commercial, etc.), land ownership structures, land tenure systems, land productivity, land degradation, conservation efforts, and land-related policies and regulations.

15.2 Certificate of Right of Occupancy (CRO)

Legal document that grants an individual or entity the lawful right to occupy and use a specific piece of land in Tanzania. It is issued under the Land Act No.4 of 1999 and provides the holder with secure land tenure rights for specific term on general land.

15.3 Certificates of Customary Right of Occupancy (CCROs)

Certificate of right of occupancy issued to land under customary tenure as stipulated under Section 27 of the Land Act No.5 of 1999 and includes deemed right of occupancy and must have been allocated by the Village Council with no specific term for village lands.

15.4 Certificate of Village Land

Certificate issued in the name of the President by the Commissioner of lands to a village that land boundaries have been demarcated and village council has approved the functions of management of the village land under and in accordance with section 7 of Land Act Cap.114.

15.5 Cadastral Survey

Boundary that has been approved by Chief Surveyor by using information that recorded the position of the boundary of land in separate ownership or intended to be the subject of any disposition or partition, or reestablishing such boundary on the ground or setting out new boundary on the ground.

15.6 Land

Is the surface of the earth and the earth below the surface and all substances other than minerals or petroleum forming part of or below the surface, things naturally growing on the land, buildings and other structures permanently affixed to or under land and land covered by water.

15.6.1 Land Owned by law

This refers to the land for which the holder possesses title of ownership, that is, Leased/Certificate of ownership/Customary Law (granted right of occupancy/customary right of occupancy) and has the right to determine the nature and extent of its use. It excludes the area owned but rented to others.

15.6.2 Land Owned by Local Customary Law

This refers to the land owned by agricultural holding without leased/Certificate of ownership but village council knows that land owned by such agricultural holding. It excludes the area owned but rented to others.

15.6.3 Access to Land

Is a process of acquiring land rights. The concept of access to land encompasses the legal, economic, social, and cultural dimensions of land rights and tenure, as well as the mechanisms that facilitate or hinder equitable and secure access to land resources.

15.6.4 General Land

Are all public land which is not reserved land or village land and includes un occupied or unused village land; (controlled directly by the state, and representing approximately 2% of the country's land).

15.6.5 Reserved Land

Refers to land that is set aside for specific purposes by the government. This type of land may be reserved for conservation, environmental protection, national parks, game reserves, forest reserves, or other public interest uses.

15.6.6 Land Rent

Is annual fee that determined by the Commissioner of lands by considering the area, use and value of land paid by a holder of the right of occupancy in the manner provided for under the provisions of the Public Finance Act.

15.6.7 Land Tenure

Is the relationship between individuals, communities, or entities and land, particularly regarding ownership, possession, and use rights.

15.6.8 Land Tenure System

It includes the legal, customary, and administrative frameworks that govern land ownership, control, and management. This includes the allocation of land, land use regulations, land rights, land transfer, and dispute resolution mechanisms.

15.6.9 Land Rented to/from Others

This refers to the land area rented or leased by the holder from/to 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.

15.7 Co-ownership or Co-occupancy

Is the situation where two or more individuals or entities jointly hold rights to a specific piece of land. This arrangement can take various forms, such as joint tenancy, tenancy in common, or co-occupancy based on specific agreements or legal provisions.

15.8 Land Parcel

Is a specific piece or portion of land that is defined by boundaries and is considered as a distinct unit for ownership, management, or development purposes. Land parcels are individual units of land that are typically identified by legal descriptions, survey measurements, and cadastral information to distinguish them from surrounding properties. Land parcels can vary in size, shape, and use, ranging from small residential lots to large agricultural fields or commercial properties.

15.9 Land Use Plan

Plan prepared or adopted by a planning authority under which any parcel of or structure erected on land, or part of it is or is intended to be used, or occupied then approved under the Ministry responsible for lands

15.10 Village Boundary

Natural and physical features showing surveyed demarcations of a village land as approved by the Ministry responsible for lands.

15.11 District Land and Housing Tribunal

Body established by or under any written law which is referred to in section 167 of Land Act Cap.113 as having jurisdiction to determine land disputes at district level.

15.12 Residential Licence

Permission given by the Government or an occupier of land under a right of occupancy or a lessee which allows the person to whom the licence is given to occupy or use or do some act in relation to the land comprised in the right of occupancy or the lease which would otherwise be a trespass but does not include an easement.

15.13 Dwelling House

This means that any house or part of a house or room used as a separate dwelling in any building and includes any garden or other premises within the cartilage of and used as a part of the dwelling house as so defined.

15.13.1 Dwelling

A place where people live, such as a house, apartment, or other residential unit that provides shelter and accommodation. Also, it serves as a residence or habitation for individuals, families, or households, and it is the primary space where people carry out their daily activities, rest, and seek refuge.

15.13.2Dwelling Unit

This is all about 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.

15.14 Housing Unit

It is a separate and independent place of abode intended for habitation by a single household, or one not intended for habitation but occupied as living quarters by a household. Thus, it may be an occupied or vacant dwelling, an occupied mobile or improved housing unit or any other place occupied as living quarters by a household.

15.14.1 Temporary Housing Unit

It refers to a structure that, by the way it has been built, is not expected to maintain its durability for a long period of time, but has some of the facilities of a conventional dwelling.

15.14.2 Temporary Dwelling Unit

A dwelling unit that is provided in response to emergency situations or for temporary relocation purposes or intended to be occupied for a limited time only.

15.14.3 Semi-Permanent Dwelling Units:

These are dwelling units built with a combination of durable materials and require regular maintenance.

15.14.4 Permanent Dwelling Units:

These are built with durable materials (wall, floor and roof) that can maintain their stability for at least 15 years.

15.15 Durable Materials:

These may be categorized as follows: Durable Roofing Materials: Iron-sheets, Tiles, Concrete and Asbestos. Non-durable Roofing Materials: Grass/Leaves, Mud and Leaves, Plastics/Box and Tent.

15.15.1 Durable Wall Materials

Are materials used for building permanent house walls such as stones, cement bricks, sundried bricks, baked bricks, timber, timber and sheets.

15.15.2 Non-durable Wall Materials

Are materials used for building temporary wall materials such as none treated poles and mud, grass and tent.

15.15.3 Non-durable Flooring Materials

Wood Planks, Palm/Bamboo, Earth/Sand and dung.

15.16 Building

Is any independent free-standing structure comprising one or more rooms or other spaces, covered by a roof, enclosed with external walls or dividing walls which extend from the foundations to the roof, and intended for residential, agricultural, industrial, commercial, cultural and other purposes.

15.16.1 Residential Building

Is a building that half of the floor area is used for dwelling purposes. Other buildings should be regarded as non-residential. Other information regarding building: Houses (ground-oriented residential buildings; comprising all types of houses detached, semi-detached, terraced houses, houses built in a row, etc.) each dwelling of which has its own entrance directly from the ground surface. Other residential buildings: comprising all residential buildings other than ground-oriented residential buildings as defined above.

15.16.2 Non-Residential Building

Consists of buildings other than dwellings, including fixtures, facilities and equipment that are integral parts of the structures, other information: Historic monuments identified primarily as non-residential buildings are also included, Examples include

warehouse and industrial buildings, commercial buildings, buildings for public entertainment, hotels, restaurants, educational buildings, health buildings, etc

15.16.3 Room

Is a space in a housing unit or other living quarters enclosed by walls reaching from the floor to the ceiling or roof covering, or to a height of at least two meters of an area large enough to hold a bed for an adult that is at least four (4) square meters.

15.16.4 Slum

It is a densely populated urban area which is characterized by a generally low standard of living. Comprised of dwellings with at least one of the four characteristics: (a) lack of access to improved water supply; (b) lack of access to improved sanitation; (c) overcrowding (3 or more persons per room); and (d) dwellings made of non-durable material (UN, 2008).

15.17 Village

Village: refer to a specific area of land designated for residential, agricultural, or mixed-use purposes within a rural or semi-urban setting. Villages can vary in size and structure depending on cultural, historical, and geographical factors.

15.18 Village Land

Refers to the land that is owned and administered by villages or local communities. This type of land is governed by the Village Land Act of 1999 and is under the authority of the village assembly and village council and representing approximately 70% of the country's land);

15.19 Minor Town

Settlement with minimum population of 10,000 with the following basic services (a) Health centre; (b) Secondary school; (c) 20 retail shops and a market facility; (d) Primary court; and (e) serves as either a ward or division headquarters.

15.19.1 Town

Settlement having a minimum of 30,000 people and meet at least 50% of the annual budget from own revenue sources. Also, it has to provide the following community services and facilities.

(a) Hospital; (b) Secondary school; (c) At least 50 licensed shops; (d) Police station; and (e) Serves as divisional headquarters.

15.19.2 Municipality

Settlement having a minimum of 100,000 people and an economic base of at least 30% of employment in the non-agricultural sector, it is also required to have at least one

manufacturing industry and several small-scale industries. It should be self-sustenance for at least 70% of annual budget; and it should have a centre providing higher order services, including cultural, educational and health facilities which serve an area beyond the administrative region such as universities, referral hospital and international conference facilities. At present, there are 18 municipal authorities in the country.

15.19.3 City

Municipality that has symbolic importance in addition to meeting the minimum requirement for being a municipality, Key attributes that define a city are: (a). Minimum of 500,000 people; (b). Self-sustenance by at least 95% of annual budget; (c) historical significance; (d). Outstanding cultural importance such as a major tourist centre; (e). The seat of regional government; (f). The seat of international activities; (g). Any other symbolic value, the power to grant a municipality status of a city is vested in the National Assembly.

15.20 Residential Plot

A piece of land that is designated for the construction of a residential building, such as a house or an apartment complex. It is typically zoned for residential use and may be located within a housing development or a designated residential area.

15.20.1 Non-Residential Plot

A piece of land that is designated for purposes other than residential construction.

15.20.2 Commercial Plot

A piece of land that is designated for commercial purposes. This type of plot is typically zoned for the construction of businesses, retail outlets, offices, hotels, restaurants, or other commercial establishments. It is intended for non-residential use and is often located in areas with high commercial activity.

15.20.3 Low-Density Plot

Is characterized by a lower concentration of housing units per unit of land area. This type of development typically results in a lower population density and a more spread-out, less urbanized feel compared to high-density residential areas. (The plot normally ranges 801-1500sqm).

15.20.4 Medium-Pensity Plot

Is characterized by a moderate concentration of housing units per unit of land area, falling between low-density and high-density developments. Medium-density plots are often found in suburban or transitional areas, offering a compromise between the spaciousness of low-density developments and the urbanization of high-density areas. (The plot normally ranges 601-800sqm).

15.20.5 High-Density Plot

Is characterized by a higher concentration of housing units per unit of land area. In this, land is utilized more intensively, often with multi-story apartment buildings or townhouses, resulting in a higher population density within the area. High-density plots are commonly associated with urban settings and offer a more compact living environment with a greater number of housing units within a given area. (The plot normally ranges 300-600M^2.

15.21 Satellite City

A smaller city which is located near a larger city but operates independently. Satellite cities are designed to reduce congestion, provide affordable housing, and offer job opportunities outside of the main city center. They are connected to the larger city through transportation networks like highways or public transit systems.

15.22 Human Settlement

The totality of the human community whether city, town or village with all the social, material, organizational, spiritual and cultural elements that sustain it as defined in the UNHABITAT Vancouver Declaration on Human Settlement in 1976.

15.23 Common Areas

Parts of a building or land, shown on the site plan and layout plan designated for common use by the owners and occupiers of building units such as stair cases, lifts, and lift lobbies, fire escapes, common entrances and exits of buildings, areas used for installations of central services such as electricity, gas, water, sanitation, outdoor air-conditioning, water tanks, generators, pumps, ducts, and common gardens.

15.24 Regularized Settlement

This is an informal or unplanned urban or peri-urban settlement that has been formally recognized and integrated into the legal and administrative framework of land use and development.

15.25 Land Development

The process of improving land by adding improvements on or to a parcel of land and such improvements may include drainage, utilities, subdividing, access, buildings, any combination of these elements, and the project where such improvements are being made.

15.26 Real Estate

Land, buildings, and improvements there to and for the purpose of the Real Estate Act, 2017 real estate shall also include buildings constructed in or on water bodies like oceans, lakes and rivers.

15.27 Master Plan

Comprehensive and strategic land use plan that provides a framework for the orderly development and management of a specific area, such as a city, region, or district. The master plan serves as a long-term guide for land use, infrastructure development, environmental conservation, and urban growth within the defined jurisdiction/ Long-term land use plan of at least (20) twenty years which guides and controls physical development of an urban area.

15.28 Land Valuation

Is the process of determining the monetary value or worth of a piece of land based on various factors such as location, size, shape, zoning regulations, accessibility, infrastructure, topography, land use potential, market conditions, and other relevant considerations. Land valuation is essential for various purposes including real estate transactions, property taxation, investment analysis, development planning, insurance purposes, and legal disputes.

15.29 Compensation

Compensation for loss of interest in land shall include value of land, unexhausted improvements, disturbance allowance, transport allowance, accommodation allowance and loss of profit.

15.30 Mortgage

Interest in a right of occupancy or a lease securing the payment of money or money's worth or the fulfilment of a condition and includes a sub-mortgage and the instrument creating a mortgage.

15.31 Transfer

the passing of a right of occupancy, a lease or a mortgage from one party to another by act of the parties and not by operation of the law and includes the instrument by which such passing is affected.

15.32 The Land Acquisition

Legislation that provides the legal framework for the compulsory acquisition of land by the government or authorized entities for public purposes.

15.33 Prime Area

An area that yields a maximum profit to developers after all other factors of development and use has been satisfied.

15.34 Change of Use

The process of altering the intended purpose or activities associated with a particular piece of land, building, or property. This change typically involves transitioning from one permitted land use category to another, as defined by local zoning regulations, land use plans, or development controls.

15.35 Registration of Title

The process of officially recording ownership rights and interests in real property, such as land and buildings, in a public registry. The purpose of registration is to establish a clear and definitive record of property ownership, which provides legal certainty and protection for the rights of property owners.

15.36 Legal Documentation

Property ownership is documented through legal instruments such as deeds, titles, or other forms of conveyance, which are submitted to the relevant land registry or cadastral office for registration

15.37 Hazardous Land

refers to land that poses risks to human health, safety, or the environment due to the presence of contaminants, pollutants, natural hazards, or other factors that may cause harm or damage.

15.38 Land Hoarding

Accumulation or holding of large or many parcels of land for a long time without development.

15.39 Residential License

The right to occupy land in non-hazardous land, land reserved for public utilities and surveyed land, urban or peri-urban area for the period of time for which it has been granted.

PART FOUR: TECHNICAL SERVICES COORDINATION SECTOR
CHAPTER SIXTEEN
STATISTICAL BUSINESS REGISTER

The Statistical Business Register (SBR) is a comprehensive list of all formal establishments operating in a fixed premises in the country at a specified time. Among others, it is used as a sampling frame for establishment-based surveys including Employment and Earnings Surveys, Foreign Capital Investment Survey, Sector Specific Survey, Hotel Statistics Surveys, Annual Survey of Industrial Production (ASIP), etc. It is also used as an input to estimate GDP, PPI, and Other Industrial Indicators.

16.0 Establishments

The establishment is defined as an enterprise or part of an enterprise that is situated in a single location and in which only a single productive activity is carried out or in which the principal productive activity accounts for most of the value added.

In other words, an establishment can be defined, ideally, as an economic unit that engages, under a single ownership or control - that is, under a single legal entity – in one, or predominantly one, kind of economic activity at a single physical location – for example, a mine, factory or workshop. This ideal concept of the establishment is applicable in many of the situations encountered in industrial inquiries, particularly in manufacturing.

16.1 Establishment Name

This refers to the registered name of a Business or the name under which the unit does business. For small units, which do not have Business names, the name of the owner or one of the partners will be used. Names should be given in full.

16.2 Statistical Unit

Is the unit of measure for which the required statistical information is gathered. Or is where the required information is collected.

16.3 Regional Code

Regional codes consist of two digits that is 01 – 26. Tanzania Mainland has 26 administrative regions.

16.4 District Code

The district codes consist of two digits confined within the district.

16.5 Location

Refers to the smallest area where the establishment is located. In town, it consists of the street/road name, house number and the postcode. While in the village, the name of the village and the hamlet (part of a village) is given.

16.6 Area

Refers to the name of the locality in which the establishment is situated. For instance, Kariakoo, Magomeni and Chang'ombe.

16.7 Business

An organization engaged in production of goods, services, or both to consumers. It is also known as enterprise or firm.

16.8 Industrial Activity

Refers to the economic activity of an establishment. It includes all activities as stipulated in the International Standard Industrial Classification (ISIC)-Revision 4. If an establishment is engaged in two economic activities, it should be separated into two activities as main activity and other activity.

16.8.1 Main Activity

Activity of an establishment that contributes most to the value added for his / her business.

16.9 Ownership

The state or fact of being an owner

16.10 Nationality

The status of belonging to a particular nation, whether by birth or naturalization.

16.11 Registration of an Establishment

Refers to the process of registering or of being registered. Example A business name is simply a name or title under which a person or entity conducts a business.

16.12 Persons Engaged (Employee)

These are persons who work in an establishment with or without payment (during the reference period). They include paid up employees, working proprietors and unpaid helpers or family workers. This category includes both contract and permanent workers.

16.12.1 Working Proprietors

These are active owners of the Unit, they usually take no regular salary or wages, but earn all the profit resulting from their activity (partners share in whatever ways they have agreed upon).

All working cooperative members should be regarded as employees.

16.12.2Unpaid Helpers

These are persons like members of religious institutions, prisoners, national service, militia and the like who work for at least one third of the working time normal for the establishment. They work without regular pay or any agreed amount of money to be paid for work done.

16.12.3Unpaid family Worker:

Is a member of a family of the owner/owners of an establishment, usually working for the establishment without payments.

16.13 Total Persons Engaged

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

16.14 Capital Investment

Refers to money invested in a business with the understanding that the money will be used to purchase fixed assets, rather than used to cover the business' day-to-day operating expenses.

16.15 Annual Turnover

Refers to total amount of money earned by a business for a particular period of time, normally one year, either financial year or calendar year.

16.16 Micro Enterprises

This can be defined as enterprises which employ less than 5 persons and whose annual turnover or annual balance sheet total does not exceed 1 million. Usually, not all microenterprises fall under the informal sector.

16.17 Small Enterprises

Enterprises which employ 5 persons or greater and less than 50 persons and whose annual turnover or annual balance sheet total is between 1 mill to 49.9 million.

16.18 Medium Enterprises

Enterprises which employ 50 persons or greater or less than 100 persons and whose annual turnover or annual balance sheet total is between 50mill to 199.9 million.

16.19 Large Enterprises

Enterprises which employ more than 100 persons and whose annual turnover or annual balance sheet total is above 200 million.

CHAPTER SEVENTEEN
GEO-INFORMATION SYSTEM /SPATIAL DATA

17.0 Introduction

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.

17.1 Maps

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 physically due to limitations imposed by his/her size or his/her 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.

17.1.1 Base Map

A Base Map is a map depicting background reference information such as landforms, roads, landmarks, and political boundaries, onto which other thematic information is placed. A base map is used for locational reference and often includes a geodetic control network as part of its structure. A base map provides a user with context for a map. You can add information to a base map by overlaying other information on top of it. Base maps contain reference information that may provide different geospatial information based on what the cartographer is trying to communicate.

17.1.2 Physical Map

A physical map is one that shows the physical landscape features of a place. They generally show things like mountains, rivers and lakes and water is always shown with

blue. Mountains and elevation changes are usually shown with different colors and shades to show relief.

17.1.3 Topographic Map

A topographic map is a detailed and accurate two-dimensional representation of natural and human-made features on the Earth's surface. The most distinctive characteristic of a topographic map is that the three-dimensional shape of the Earth's surface is modeled by the use of contour lines. Contours are imaginary lines that connect locations of similar elevation. Contours make it possible to represent the height of mountains and steepness of slopes on a two-dimensional map surface. A topographic map is similar to a physical map in that it shows different physical landscape features. They are different however because they use contour lines instead of colors to show changes in the landscape.

Topographic maps produced by the Tanzania Surveys and Mapping Division are generally available in two different scales: 1:50,000 and 1:25,000. Maps with a scale of 1:25,000 are relatively large-scale. At this scale, features as small as a single home can be shown. The smaller scale 1:50,000 topographic map is more of a general-purpose reconnaissance-type map.

17.1.4 Thematic Map

A thematic map is a map that focuses on a particular theme or special topic. An example of a thematic map would be one showing the population change of Tanzania in specific locations from 1998 to 2012.

17.1.5 Census/Survey Maps

Census maps refer to the smallest geographic area from which census/survey data are collected. They are usually called Enumeration Areas (EAs). The process of creating 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).

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.

17.1.6 Supervisor Area Maps

The maps refer to an area covered by one supervisor during censuses and surveys. A 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.

17.1.7 Statistical Maps

These refer 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.

17.1.8 Point Symbol Maps

Point symbol maps refer to dots or graduated symbols used in representing a certain value on the statistical map.

17.1.9 Choropleth (Shaded) Maps

Choropleth maps refer to administrative areas colour shaded to present several classes of statistical data, such as densities, per capita, ratio of one characteristic to another, etc.

17.1.10 Isopleth Maps

These refer to maps representing statistical data by a series of lines each connecting points at which a given variable has a specific value.

17.1.11 Online Maps

Are digital representations of geographical areas that provide information about locations, routes, and features.

17.1.12 Web Maps

Are online maps created with ArcGIS that provide a way to work and interact with geographic content organized as layers, they are shared on the web and across smartphones and tablets.

Tablet: Is a mobile device, typically with a mobile operating system and touchscreen display processing circuitry, and a rechargeable battery in a single, thin and flat package. Tablets, being computers, have similar capabilities, but lack some input/output abilities that others have. Modern tablets largely

resemble modern smartphones, the only differences being that tablets are relatively larger than smartphones, with screens 7 inches or larger, measured diagonally, and may not support access to a cellular network. Unlike laptops, tablets usually run mobile operating systems, alongside smartphones.

17.1.13 Offline Map

Is a digital map that you can access and use even when you don't have an active network connection. Maps has an offline feature to help you navigate safely even when your phone might be showing zero bars.

17.2 Map Elements

17.2.1 Scale

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.

17.2.2 Map Symbols

Map symbols refer 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.

17.2.3 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.

17.3 Codes

Codes refer 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 and villages.

17.3.1 Regional and District Codes

Regional and District Codes refer to a two-digit number identifying an administrative region and district; with each respective code having two digits.

17.3.2 Ward/Shehia Code

Ward/Shehia Code refers to an administrative ward or shehia. A ward/shehia code has three digits. The first two digits stand for a serial number of the ward within the district, the third digit classifies the ward/shehia into whether it is pure rural (1), pure urban (2) or mixed (3). For example, ward/shehia 031 means third ward/shehia in a district which is pure rural; 072 means seventh ward/shehia which is pure urban; and 113 means eleventh ward/shehia which is mixed, that is, part of it is rural while the rest of it is urban.

17.3.3 Village/Street Code

Village/Street Code refers to a two-digit number identifying an administrative village/mtaa.

17.3.4 EA Code

EA Code refers to a number identifying the smallest geographic area from which census/survey data are collected. EA code has twelve-digits which is a collection of all levels of administration including the number of and EA which has three digits. That is, an EA code comprises two-digit regional code, two-digit district code, three-digit ward/shehia code, two-digit village/street code and a three-digit EA number.

17.4 Aerial Photography

It refers to a process of recording features on the earth using remote sensing instrument(s).

17.5 Satellite Imagery

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 sensors or scanners to sense or scan 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.

17.6 Global Positioning System (GPS)

It refers to space-based navigation system that provides location and time information in all-weather conditions anywhere or near the earth.

17.7 Automated Cartography

Automated cartography refers to the map production process using computers, automatic drafting equipment, and microfilm systems. The development of automated cartography increases the speed and accuracy while 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.

17.8 Arc GIS

This is a software that allows handling and analyzing geographic information by visualizing geographical statistics through layer building maps like climate data or trade flows.

17.8.1 ARC GIS Platform

A is a computer system that analyzes and displays geographically referenced information.

17.8.2 Collector for Arc GIS

Is a mobile data collection app that makes it easy to capture accurate data from the field and return it to the office.

17.8.3 ArcMap

Is a geospatial software to view, edit, manage and analyze geographic data, software for creating, analyzing, and visualizing spatial data and maps.

17.8.4 Arc Catalogue

Is an application that helps to create, organize, and manage all Arc GIS content. This includes various types of geographic information such as:

- **Geodatabases:** These store spatial data, including feature classes, tables, and relationships.
- **Raster files**: These represent imagery or gridded data.
- **Map documents (MXD):** These contain map layouts, symbology, and data layers.
- **Globes**: These are 3D representations of the Earth's surface.
- **Layers:** These define how data is displayed on maps.
- **Geoprocessing models:** These automate spatial analysis tasks.
- **Python scripts**: These allow custom scripting within ArcGIS.
- **ArcGIS services:** These enable sharing and publishing of data via ArcGIS Server.

17.8.5 ArcGIS online

Is secure mapping and spatial analysis software as a service (SaaS) platform that empowers organization to unlock geospatial insights. Built on scalable and resilient technology, an organization can collect and manage data, analyze it, and improve decision-making by easily sharing maps and apps. Seamlessly collaborate with the help of a configurable sharing model and a variety of integrated apps and capabilities.

17.8.6 ArcGIS Enterprise

Is the foundational software system for GIS, powering mapping and visualization, analytics, and data management. It is the backbone for running the Esri suite of applications and your own custom applications.

17.9 Shapefile

Is a geospatial vector data format for geographic information system (GIS) software. It is developed and regulated by Esri as a mostly open specification for data interoperability among Esri and other GIS software products. The shapefile format can spatially describe vector features: points, lines, and polygons, representing, for example, water wells, rivers, and lakes. Each item usually has attributes that describe it, such as name or temperature.

17.10 Schema

Is a cognitive framework or concept that helps organize and interpret information. Simply put, a schema describes patterns of thinking and behavior that people use to interpret the world.

17.10.1 Publish a Schema

Refer on how to design or take the state of the project, compare that to a database, and push those changes. Publish functionality includes the schema comparison portion, but

then just picks up all differences and acts on them. It can also run the pre/post deploy scripts you have set up.

17.11 Geodatabase

Is a collection of geographic datasets of various types held in a common file system folder, or a multiuser relational database management system such as IBM Db2, Microsoft SQL Server, Oracle, PostgreSQL, or SAP HANA.

17.12 Landmark

Is a recognizable natural or artificial feature used for navigation, a feature that stands out from its near environment and is often visible from long distances. In modern day use, the term can also be applied to smaller structures or features, that have become local or national symbols.

17.13 Enumeration Area

Is a geographic region canvassed by one or more census representatives, commonly referred to as enumerators. These areas cover the entire territory of a given country and are composed of one or more adjacent smaller areas, often corresponding to neighbourhood blocks or other manageable units. The purpose of defining EAs is to facilitate the census enumeration process by dividing the work into smaller, more manageable sections. EAs are typically determined based on the number of households they contain, with urban areas having more households than rural areas due to the proximity of dwellings. The boundaries of an EA usually follow physical features such as roads, rivers, and fence lines, making it easier for field staff to identify their assigned area of interest. During a national census, data collection occurs at the EA level, making it the smallest statistical sample unit in the census process

17.14 EA Delineation

Is the action of describing or portraying boundary precisely, the action of indicating the exact position of a border or boundary.

17.15 EA Geocode

Are the specific location's geographic coordinates, which typically include its latitude and longitude that represents a specific geographic place such as a landmark, street address, place name, or location. These coordinates help pinpoint a place on the Earth's surface. Geocodes are plottable on maps and have applications in navigation, routing, spatial analysis, and insurance risk analytics.

17.16 Attribute Table

Are database electronic storage container with a top-down structure in which the items contained are related to each other and that relationship allows for the data to be quickly and efficiently queried and retrieved for use.

17.17 Location

Is a particular place or position, an actual place or natural setting in which a film or broadcast is made, as distinct from a simulation in a studio. Is the action of locating someone or something.

17.18 Accuracy

Refer to the quality or state of being correct or precise, the degree to which the result of a measurement, calculation, or specification conforms to the correct value or a standard.

CHAPTER EIGHTEEN
SAMPLING

18.0 Introduction

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.

18.1 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.

18.2 Target Population

The set of elements about which information is wanted and estimates are required. Practical considerations may dictate that some units are excluded (e.g. Institutionalized individuals, the homeless, or those who are not be possible to access Without incurring excessive cost).

18.3 A Sample

A set of elements taken from a population.

18.4 A Statistic

A numerical characteristic of a sample.

18.5 Parameter

A numerical characteristic of population.

18.6 Response rate

Percentage of sampled units who actually participate in the study.

18.7 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

18.8 Confidence Interval

A measure that tells the possible range within which the true population characteristic lies with a certain level of confidence (usually at 95 percent level).

18.9 Design effect (Deff)

A parameter measuring the efficiency of a used sampling plan compared to Simple Random Sampling Without Replacement (SRSWOR).

$$Deff = \frac{var(\bar{y})}{var(\bar{y}_{srswor})}, \qquad Deft = \sqrt{Deff} = \frac{se(\bar{y})}{se(\bar{y}_{srswor})}$$

18.10 Sampling Frame

Refers to a list of units from which a sample is to be selected. It must have characteristics to be studied.

18.11 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, etc. depending on the stages of sampling.

18.12 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.

18.13 Statistical Error

The difference between the true population parameters and the estimated statistics from a sample.

18.14 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.

18.15 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.

18.16 Sampling Procedure

Refers to the approach followed to select sampling units or elements from the population: It includes non – probability sampling or probability sampling.

18.16.1 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.

18.16.2 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.

18.17 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.

18.18 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 stratum (i.e. take random samples from a low-income household, 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).

18.19 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.

18.20 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.

18.21 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.

18.22 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.

18.23 Sample Allocation

Refers to the process of distributing or allocating a total sample size to different strata, so that a separate sample is selected from each stratum.

18.24 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.

18.25 Primary sampling unit (PSU)

Geographical area comprising one or more enumeration areas of the same type (and therefore not necessarily contiguous) that together have at least one hundred dwelling units.

18.26 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 survey.

18.27 Adjustment for Statistical Purposes

A set of procedures employed to improve *coverage*, *classification*, timing or valuation of the data, conform to an accounting or recording basis, or address data quality differences in compiling specific datasets.

18.28 Administered Item

Registry item for which administrative information is recorded in an administration record.

18.29 Administration Record

Collection of administrative information for an administered item.

18.30 Administrative Data

The set of information collected primarily for administrative purposes, usually by government departments and other organizations. This data is gathered as part of routine record-keeping, management, and operational activities.

18.31 Administrative Source

A data holding containing information collected and maintained for the purpose of implementing one or more administrative regulations.

18.32 Bias

An effect which deprives a statistical result of representativeness by systematically distorting it, as distinct from a random error which may distort on any one occasion but balances out on the average.

18.33 Code

A language-independent set of letters, numbers or symbols that represent a concept whose meaning is described in a natural language.

18.34 Coding

The process of converting verbal or textual information into codes representing classes within a classification scheme, to facilitate data processing, storage or dissemination.

18.35 Cold Deck

The imputation technique used during data editing where missing or inconsistent values are calculated or derived from other information about the household or person. Synonym logical imputation. See hot deck.

18.36 Coverage

The definition of the population that statistics aim to cover.

18.37 Coverage Error

Error caused by a failure to adequately cover all components of the population being studied, which results in differences between the target population and the sampling frame.

18.38 Data

A representation of facts, concepts, or instructions in a formal manner, suitable for communication, interpretation, or processing by humans or by automatic means.

18.39 Data Confidentiality

A property of data, usually resulting from legislative measures, which prevents it from unauthorized disclosure.

18.40 Data Editing

Activity aimed at detecting and correcting errors, logical inconsistencies and suspicious data.

18.41 Data Imputation

The procedure of entering a value for a specific data item, where the response is missing or unusable.

18.42 Data Processing

The operation performed on data in order to derive new information according to a given set of rules.

18.43 Hot deck

The imputation technique used in data editing where the source for imputed values is constantly updated from valid response combinations encountered during processing, thus reflecting the reality of the households and persons most recently processed. Synonym: dynamic imputation. See cold deck.

18.44 Item response rate

The ratio of the number of eligible units responding to an item to the number of responding units eligible to have responded to the item.

18.45 Macro data

Observation data gained by a purposeful aggregation of statistical micro data.

18.46 Matching

An operation whereby households and individuals enumerated during a census and a post-enumeration survey are compared for similarities and differences.

18.47 Metadata

Data about data, that refers to the definitions, descriptions of procedures, system parameters, and operational results which characterize and summaries statistical programs.

18.48 Micro data

Observation data collected on an individual object or statistical unit.

18.49 Probing

The technique that is used to obtain a complete and relevant response by asking further questions.

18.50 Questionnaire

A group or sequence of questions designed to elicit information upon a subject, or a sequence of subjects, from an informant.

18.51 Random Number

A number allocated to a statistical unit that is mainly used for sampling purposes.

18.52 Reference Period

The period of time (day, week, month, or year) for which information is relevant.

18.53 Refusal

Situation when a household or individual refuses to answer the questions or complete the questionnaire.

18.54 Respondent

The person or organization that answers the questions or completes the questionnaire.

18.55 Statistics

Is a process that involves scientific methods of collecting, organizing, processing, analysing, presenting, and interpreting data.

18.56 Official statistics

Is the statistics produced, validated, compiled and disseminated by or under the authority of the National Statistics Offices.

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