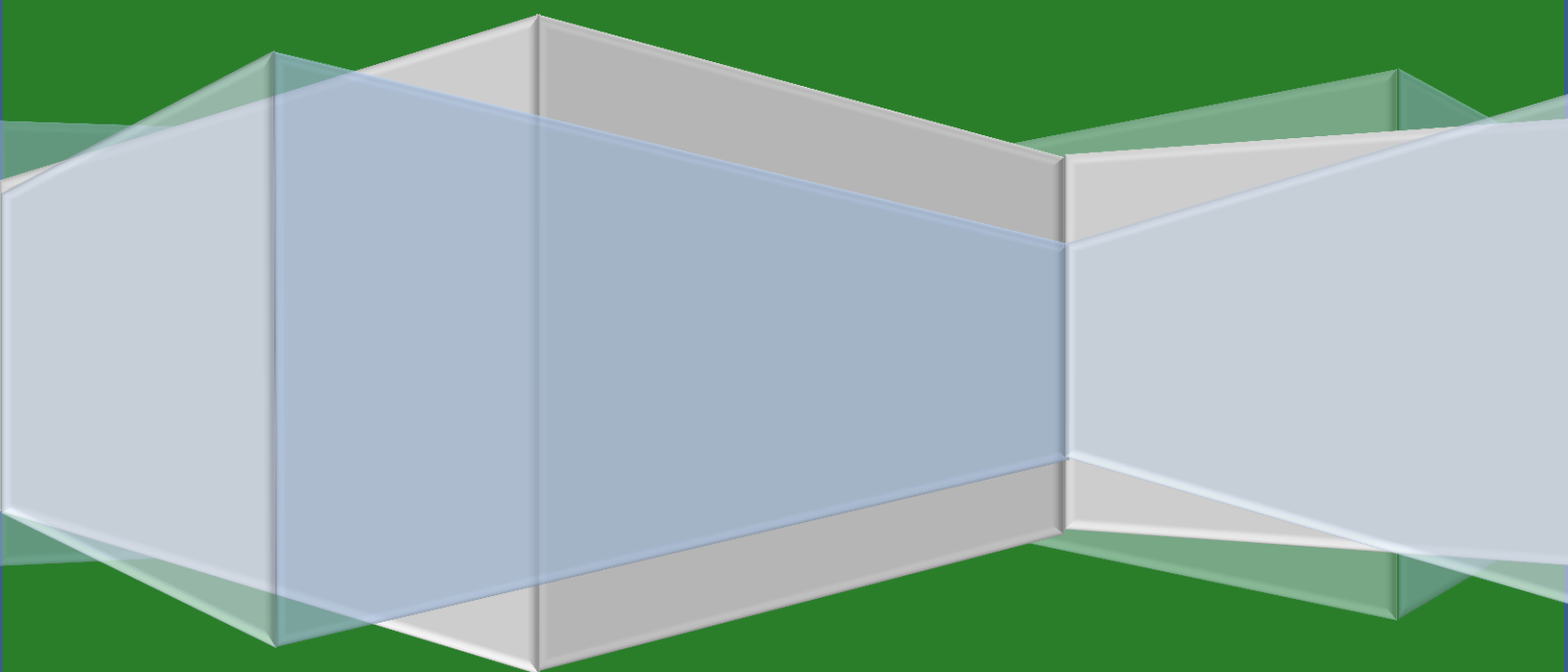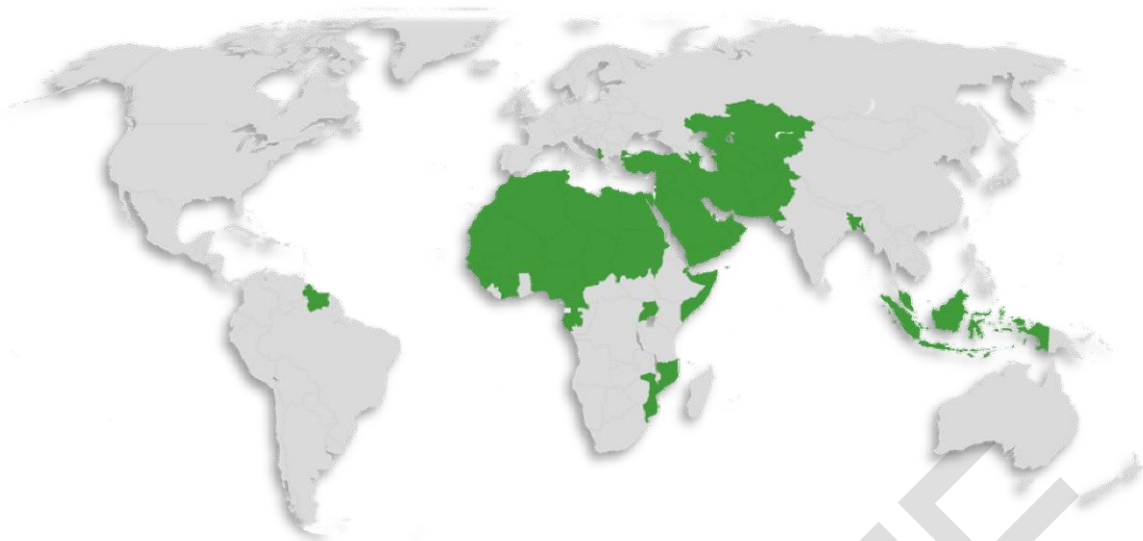# OIC ACCREDITATION AND CERTIFICATION PROGRAMME FOR OFFICIAL STATISTICIANS

STATISTICAL CLASSIFICATIONS

ORGANISATION OF ISLAMIC COOPERATION

STATISTICAL, ECONOMIC AND SOCIAL RESEARCH AND TRAINING CENTRE FOR ISLAMIC COUNTRIES

SESRIC

STATISTICAL CLASSIFICATIONS

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ORGANISATION OF ISLAMIC
COOPERATION

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RESEARCH AND TRAINING CENTRE FOR
ISLAMIC COUNTRIES

Course Content

1. <u>Introduction</u>

Statistical classifications are considered of great importance due to the diverse uses in various statistical activities and others. Being the language spoken by the world as it represents the language of communication among nations in the field of statistics and for the various economic, demographic, social and environmental activities and in the area of the World Trade ... etc.

Therefore, many countries worked on the application of these classifications longstanding as well as many international organizations focused on (United Nations, European Union, World Trade Organization, International Monetary Fund, World Bank, World Trade Organization, Organization of Islamic Cooperation... etc.) and worked on updating it constantly in addition to several workshops being organized for the countries in order to use them in their statistics. The fact that the statistical classifications application helps the statistical agencies to develop statistical indicators, enhance data quality and reliability and also works to develop working methodologies to keep pace with the surrounding changes.

Statistical agencies are seeking continuously to develop the action mechanism of the use of statistical classifications and their update being aware of the importance of classifications in statistical work and implementing the international recommendations, which obliges the states to work with in order to create internationally unified classifications enabling international comparison of statistical data and also supporting the statistical infrastructure development in the countries to enhance the degree of inclusiveness, quality and reliability of the data.

There is a set of statistical classifications from which the most notably will be addressed in this course, namely:-

1. International Standard Industrial Classification of Economic Activities ISIC
2. Harmonized System for Foreign Trade Statistics HS.
3. Central Product Classification CPC.
4. Classification by Broad Economic Categories BEC.
5. Standard International Trade Classification SITC.
6. Classification of Individual Consumption by Purpose COICOP
7. Classification of the Functions of Government COFOG
8. System of National Accounts SNA

Knowing that statistical classifications require practice by specialists in statistical work to get to know them more broadly, what will be addressed in this course will help the trainee to understand these classifications and their working areas then give him a space for researching, learning and practicing to expand his capacities and experiences through practice, research and continuous learning.

2. Sectors and Activities

International Standard Industrial Classification of Economic Activities ISIC4 which is the last updated version that has been updated and adjusted is considered in line with the application requirements of the system of national accounts SNA2008 and has a direct relationship through which most of the statistical work is being implemented giving that it includes all the activities and is used in the economic, social, demographic and environmental fields and has a relation with the rest of the other classifications used in the diverse statistical areas.

The fact that the system of national accounts is the general framework for all the statistical data, the SNA of 1993 has been revised in 2008. Then the new concepts introduced in the revised system had been taken into account during the preparation of the fourth revision of the International Standard Industrial Classification.

Therefore, sectors and activities have been divided in this course based on the International Standard Industrial Classification of Economic Activities ISIC4 and linked to framework used in SNA2008 SNA which consists of five main sectors in addition to the outside world sector then the activities were distributed each in the corresponding sector.

Figure 1 illustrates the sectors according to the SNA.
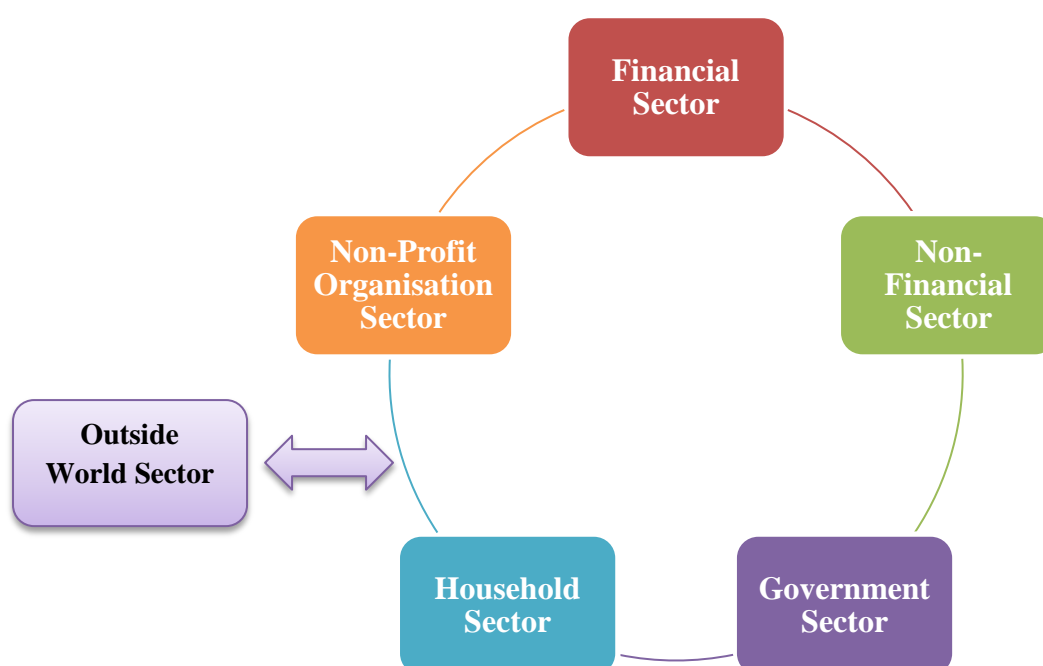
STATISTICAL CLASSIFICATIONS

Table 1 shows the distribution of sectors and activities in accordance with the SNA2008 System of National Accounts and the International Standard Industrial Classification ISIC4

Sectors	Activities
(1) **Non-Financial Sector**	**Agriculture, forestry and fishing**
	Mining and quarrying
	Manufacturing
	Electricity, gas, steam and air conditioning
	Water supply and sewage, waste management and remediation activities
	Construction
	Wholesale and retail trade, repairing of machinery, transportation and storage
	Accommodation and food service activities
	Information and Communication
	Real estate and rental activities
	Professional, scientific and technical activities
	Administrative and support service activities
	Arts and Entertainment
	Other service activities
(2) **Financial Sector**	**Financial and insurance activities**
(3) **Government Sector**	**Public administration and defense; Compulsory social security**
	Education
	Human health and social service activities
(4) **Household Sector**	**Households**
(5) **Non-Profit Institutions Sector**	**Regional and International Institutions and Authorities**

Non-Financial Sector

Consists of institutional units working principally in the production of market goods and non-financial services.

Financial Sector

Consists of institutional units working principally in financial intermediary activities or financial assistance activities.

General Government Sector

Consists of institutional units exercising legislative or executive or judicial powers and the key function of governmental units is undertaking the responsibility of providing goods and services to the community as a whole or to the individuals as well as the government is re-distributing the income and wealth.

Household Sector

The household is considered as the organizational unit of this sector and it is defined according to the concept of this system being (a small group of individuals involved in one livelihood and contribute together in their income or wealth to cover the cost of living and consume some goods and services collectively, such as housing and food....etc.)

Sector of Non-Profit Institutions Serving Households

Consists of legal or social units established for the purpose of producing goods and services but does not target a return or a profit as they offer these goods and services to the household sector for free or for a nominal fee

3. The role of statistical agencies and international organizations in the application of statistical classifications

The role of statistical agencies and international organizations in the application of statistical classifications is considered essential and important and occupies a priority in their work. These entities keen on an ongoing basis to review and update the classifications and develop their use mechanism in the field of statistical work being fundamental to the work as it helps significantly in the statistical infrastructure development.

The international organizations interested in statistical work tirelessly work for the revision and update of the classifications in line with the economic, social, cultural, technical and in terms of information developments in the surrounding environment and are holding a lot of meetings, conferences and workshops for the participation of statistical agencies and experts in the process of development and update of the classifications to gain access to updated classification versions of help to the development of statistical work and the raise of the data reliability, quality and comprehensiveness degree.

The most important actions carried out by the statistical agencies and international organizations in the application of statistical classifications can be stated here below:

1. Review the statistical classifications continuously.
2. Update the classifications in different time periods to keep pace with the economic, social, demographic and environmental developments surrounding the statistical work.
3. Organize local and international conferences and workshops designed to review and update the classifications.
4. Formation of international committees composed of experts in the field of classifications and statistics.
5. Identify new activities that require inclusion into new versions of the classifications.
6. Communication and coordination between statistical agencies and international organizations when reviewing and updating the classifications.
7. Training statistical manpower working in statistical classifications.
8. Exchange of experiences between countries and regions.
9. Increase the level of statistical concepts, definitions and classifications in the field of standardization and enhance the experiences of countries in the field of methodologies, evidence and classifications according to international recommendations.
10. Setting rules, restrictions and obligations for the countries regarding the use mechanism of the classifications, data dissemination levels and data availability and confidentiality.

STATISTICAL CLASSIFICATIONS

Figure 2 illustrates the role of statistical agencies and international organizations in updating the classifications

Among the most prominent and important entities engaged in the development of statistical classifications there are- :

- National Statistical Agencies in the countries.
- United Nations
- International Monetary Fund
- WTO
- World Customs Organization
- Organization of Islamic Cooperation
- League of Arab States
- European Union
- International Donor Organizations
- Other Regional and International organizations interested in statistical work

4. Satistical Classifications History

We will refer to the history of the most two important classifications linked to the economic activities:

(A) International Standard Industrial Classification ISIC

1. International Standard Industrial Classification, first revision in 1958
2. International Standard Industrial Classification, second revision in 1968
3. International Standard Industrial Classification, third revision in 1990 and revision 3.1 in 2004.
4. International Standard Industrial Classification, fourth revision in 2008.

(B) Harmonized System HS

- The first commercial classification of goods for foreign trade was issued by the League of Nations in 1938 and was called the mini-table for foreign trade goods classification.

- In 1950, the Statistical Commission of the United Nations Organization had issued the International Standard Classification for International Trade.

- In 1960, the United Nations Organization had modified the classification mentioned above and issued what it called Amendment No. (1), based on the changes that have occurred since 1950.

- The existence of a complete connection between each item of the International Standard Classification for International Trade and another classification issued by the Customs Cooperation Council in Brussels (CCC) has been found useful - the two classifications have been built on different basics.

- The International Standard Classification for International Trade was built on an economic basis, consistent with the World Trade movements and is therefore appropriate for trade and economic analysis to facilitate international comparison.

- The Classification of the Customs Cooperation Council (CCC) was developed for customs purposes and was extracted by Western Europe countries and a growing number of countries as well as the Arab League.

- In 1976, the United Nations Statistical Commission agreed at its nineteenth session on a program to coordinate the existing classifications of activities and develop a system for the different classifications.

- The United Nations published the CPC in 1991 and made it available for users at the national and international levels.

5. <u>Statistical Classification Policies:-</u>

The Statistical Classification policies can be divided into two parts:

(A) Classification or National Statistics policies:

- Considered being the responsibility of local government and national agencies of statistics which updates and develops a National Statistical Classification (NSCs) for internal use.

- The local statistical agency is considered to be the custodian of national statistics and, at the same time, responsible for the planning activities for the training of local classification users, develop and review the classification and ensure its good work .

(B) Classification or International Statistics policies:

The classification, which is set up and developed by international institutions to ensure the proper application of international conventions and to match and unify national and international information.

- The international statistical classifications (ISCs) are considered to be the result of international agreements between the national authorities responsible for statistics in different areas.

- International institutions such as the United Nations (UN), the World Customs Organization (WCO), the World Health Organization (WHO), the International Labor Organization (ILO) and other organizations are the sponsors of the various classifications.

6. Classification Forms:

There are three forms of classification :

(A) Reference Classification:

It is the classification that enjoys a broad and large acceptance through international agreements as well as it is validated and certified as a global model (such as Harmonized System HS or Standard International Trade Classification SITC, etc.).

(B) Derived Classification:

It is derived from the reference classification as it is set up through a redistribution or assembly of some parts of the basic or reference classification. An example of this is the Classification by Broad Economic Categories (BEC) which is derived from the Standard International Trade Classification (SITC), or the General Industrial Classification of Economic Activities within the European Communities (NACE) which is derived from the International Standard Industrial Classification (ISIC).

(C) Related Classification:

It aims to achieve a particular purpose or serve a certain point, such as the North American Industry Classification System (NAICs) which is related to the International Standard Industrial Classification (ISIC).

Figure 3 illustrates the statistical classifications forms
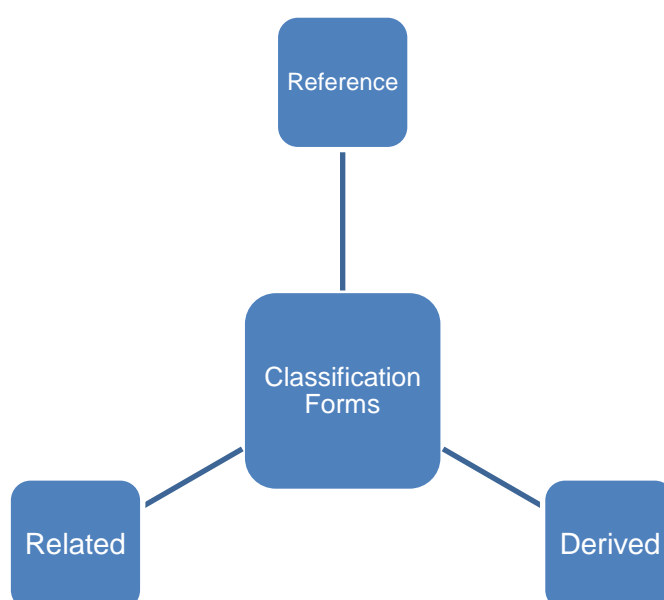
7. Why the statistical classifications are being updated ?

1. The emergence of new activities and industries in the economic field

2. The emergence of new technologies

3. The change in the population spending pattern

4. The emergence of consumers new cultures

5. The diversity of trade methods and the emergence of e-commerce and e-marketing

6. The change of Global trade structure and its evolution over time

7. The entry of new commodities to the markets or improvements on other goods

8. The conditions to access the World Trade Organization

9. Terms of donor countries in the granting of aid, especially in the area of transparency and good governance

10. The World interest in environmental, climate change and green accounts issues ... etc.

8. Why the need for statistical classifications

1. Providing a unified framework for the exchange of information and assistance and enabling the international and regional comparisons.
2. Assisting in the development of statistical vocabulary in the applied evidence and classifications.
3. The classifications are considered fundamental and necessary requirements for the statistical work.
4. Assisting in the classification of variables and characteristics of the economic, and social statistical indicators.
5. Assisting in the preparation of variables in digital form, which contributes to the service of the countries' economic and social plans.
6. Helping all categories of data and information users to understand the meaning of statistical vocabulary at one level and on the basis of that, the information analysis results will be clear and accurate.
7. Coordinating the variables and the properties in groups making the understanding of the data easier when disseminated.
8. Making the monitoring process of changes and developments that occur on some phenomena easy and enable monitoring and highlighting them in the comparison works for different periods of time.
9. Enhance the degree of data inclusiveness and coverage.
10. Increase the level of dependability and reliability of statistical data in the fields of development plans preparation, anti-poverty and increasing development rates.

9. The most important types of the classifications and statistical systems:-

There are many classifications used in the statistical work and the prominent among them are classified by use as follows:

Figure 4 illustrates the types of classifications distributed by their use areas
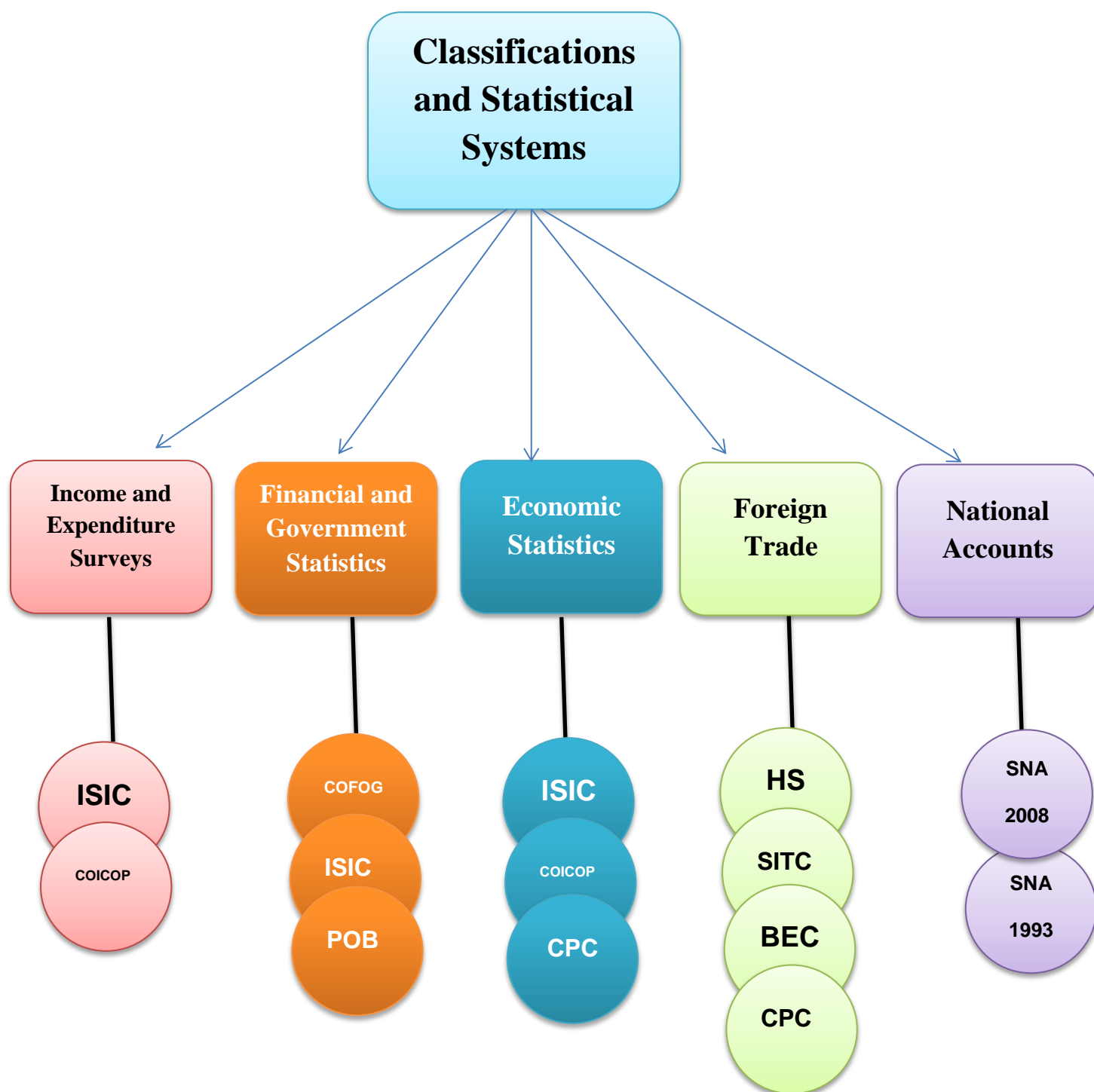
9.1   System of National Accounts

The SNA is composed of a coherent, consistent and integrated set of macroeconomic accounts, budgets and schedules that are based on a set of concepts and definitions, classifications and accounting rules agreed internationally.

Accordingly, the system provides a comprehensive accounting framework through which economic data can be compiled and displayed in a form designed for the purposes of economic analysis, decision-making and policy-making and the accounts provide tremendous amount of detailed information about the reality of an economy prepared in accordance with the rules and accounting concepts. The information is gathered practically for successive periods of time and thus provides a steady stream of data that cannot be dispensed with in monitoring, analyzing and evaluating the performance of the economy during different periods of time.

The SNA has seen several updates; the most prominent are (SNA1953, SNA1968, SNA1993, and SNA2008).

SNA Structure:

The System of National Accounts consists of a number of integrated accounts led by a group of accounts called the central system accounts which include :

(A) Current accounts, namely:

- production accounts
- income use distribution accounts

(B) Capital accumulation accounts

- Include capital account; financial account, account of changes in the volume of assets, revaluation account, gains and losses on real and neutral acquisitions account.

(C) Budget accounts

- Include the opening balance sheets, changes in the balance sheet and final balance sheets.

(D) External world accounts.

- These accounts are recorded as accounts unifying the economy as a whole, and as detailed sectoral accounts, being presented with a unified and integrated matrix to manifest the economic and financial transactions arising from the economic activities of traders, residents and non-residents for a particular economy over a period of time which is usually a year or as sectoral accounts, i.e. for institutional units, according to the system concepts.

9.2   Statistical Classifications

(A) International Standard Industrial Classification of All Economic Activities ISIC

The economic activities were subdivided in a hierarchical structure of four levels including categories being identified into several other detailed levels until the fifth level. So as to facilitate the data collection, display and analysis in detailed levels of the economy in a uniform manner internationally comparable. These categories are called chapters at the highest levels and symbolized by alphabet designed to facilitate economic analysis. The chapters are divided to broad assemblies then to successive categories of more detailed numerical codes, as there are sections with double digits level and groups of three numbers then branches with four numbers and then the lowest detailed items from five digits which are the local levels of the classification, the most detailed levels**.**

The classification consists of 21 chapters on the first level distributed on 88 sections in the second level and a total of 232 groups on the third level and 410 activities on the fourth level**.**

Figure 5 shows the activity distribution levels
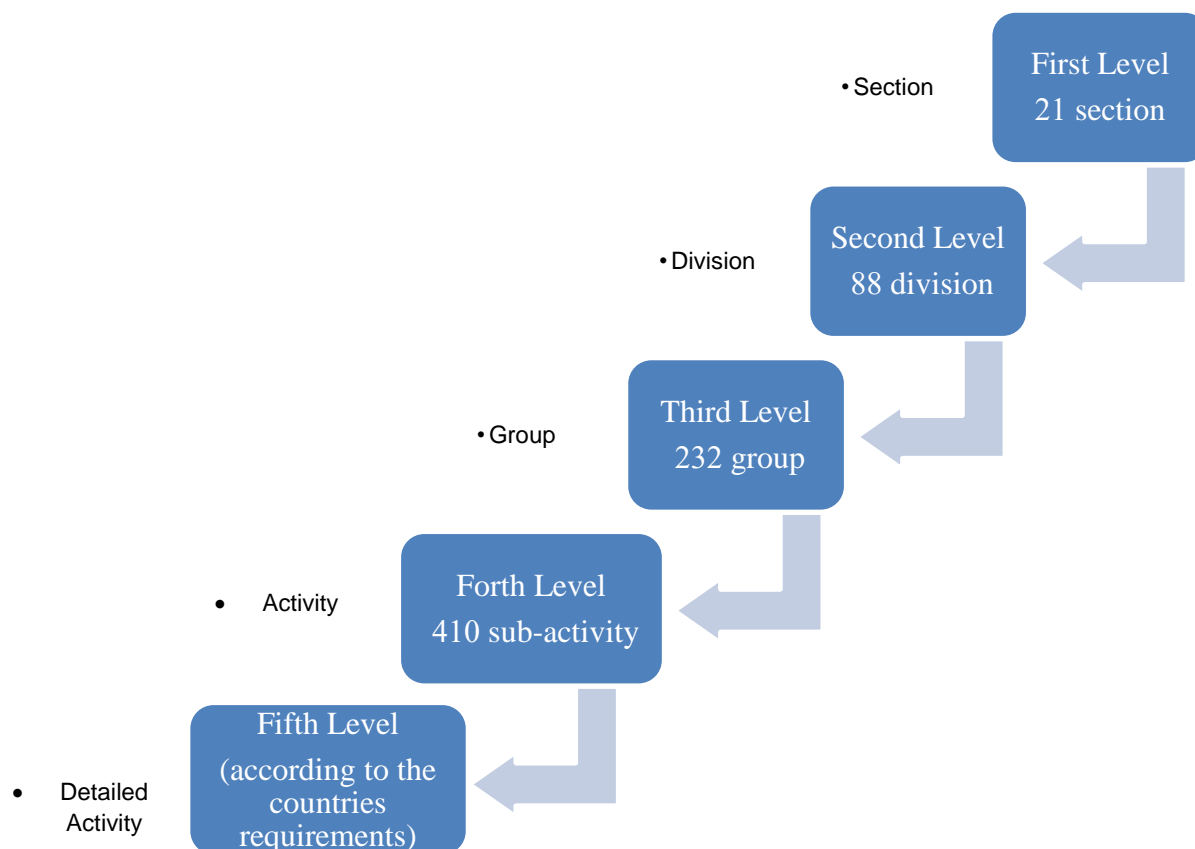
- Section — First Level 21 section
- Division — Second Level 88 division
- Group — Third Level 232 group
- Activity — Forth Level 410 sub-activity
- Detailed Activity — Fifth Level (according to the countries requirements)

Table (1), a model illustrating the structure of the International Standard Industrial Classification ISIC4

Section	Division	Group	Class	Activity	Description
A					Agriculture, forestry and fishing
	01				Crop and animal production, hunting and related service activities
		011			Growing of non-perennial crops
			0111		Growing of cereals (except rice), leguminous crops and oil seeds
				01111	Growing of cereals (wheat, grain maize, barely, rye,...etc.)
				01112	Growing of leguminous crops (beans, broad beans, lentils,...etc.)
				01113	Growing of oil seeds (soya beans, groundnuts, mustard seeds,...etc.)
				01119	Growing of crops not classified elsewhere
			0112		Growing of rice
				01120	Growing of rice
			0113		Growing of vegetables and melons, roots and tubers
				01131	Growing of leafy or stem vegetables (lettuce, spinach, vegetables,...etc)
				01132	Growing of fruit bearing vegetables (cucumbers, eggplants,tomatoes, watermelons, cand others)
				01133	Growing of root, bulb or tuberous vegetables (carrots, garlic, onions,and others)
				01134	Growing of roots and tubers (potatoes, sweet potatoes, cassava, yams and others)

Considerable effort was made in the fourth revision of the International Standard Industrial Classification in order to address the need for convergence between existing activity classifications at the international level and multi-countries. The experience gained from the implementation of the classifications and the ongoing development works of the classifications in the countries have contributed a lot in the fourth revision of the International Standard Industrial Classification. The explanatory notes have been expanded to provide additional details as to permit more accurate interpretation of the content and the limits of individual branches, which reduces the ambiguity in the application of the fourth revision of the International Standard Industrial Classification.

The fourth revision of the International Standard Industrial Classification reinforces the importance of classification by providing a better structure for the global economy picture in the current time, with the recognition of new industries have been arisen in the past twenty years and facilitating international comparison through increased compatibility with existing regional classifications and the main features of the classification.

The scope of the International Standard Industrial Classification covers generally productivity activities, i.e., economic activities within the production limits in the national accounts system and a few exceptions was applied to allow the classification of activities from outside of production limits but are characterized by the importance of other different types of statistics.

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The following table shows the first level of economic activities according to ISIC4.

Table 2 shows the economic activities according to the ISIC4

ISIC 4	Economic Activity
A	Agriculture, forestry and fishing
B	Mining and quarrying
C	Manufacturing
D	Electricity, gas, steam and air conditioning
E	Water supply and sewage, waste management and remediation activities
F	Construction
G	Wholesale and retail trade and maintenance of machinery
H	Transportation and storage
I	Accommodation and food service activities
J	Information and Communication
K	Financial and insurance activities
L	Real estate and rental activities
M	Professional, scientific and technical activities
N	Administrative and support services activities
O	Public administration and defense; compulsory social security
P	Education
Q	Human health and social service activities
R	Arts and Entertainment
S	Other service activities
T	Households
U	Regional and international institutions and authorities

(B) Harmonized System for Commodity Description (HS):

The Customs Cooperation Council adopted the Harmonized System in June 1983 and the International Convention related to the system entered into effect on January 1, 1988. The HS contains 5113 subheadings and 1241 headings divided into 97 chapters and 21 sections.

How the Harmonized System for Commodity Description works (HS):

- The Harmonized System is an international classification of six digits that was developed by the World Customs Organization WCO.

- Some states expanded it to a classification of eight digits for export purposes and a classification of ten digits and more for the purposes of customs.

- It is used in order to know the applied duty ratio to any commodity by reference to the Nomenclature, which is the only way to determine the chapter, the item and the rate of customs duty for a particular commodity.

- Goods are arranged following their manufacturing level, namely:

    - Raw materials.
    - Semi-finished products.
    - Finished products distributed among the following groups:
        - Animals
        - Plants.
        - Natural Resources.
        - Industrial products.

For Instance:

- Live animals are listed under the first chapter and skins
- Animal Hides under chapter 41
- Leather boots under chapter 64, and there is the same order in the chapters and headings.

Harmonized System for Commodity Description structure (HS):

The Harmonized System lists have been logically structured according to the economic activity or the forming materials.

The Harmonized System is divided to:

Table 3 illustrates the Harmonized System HS sections

Chapter code	Details
1	**Section I: live animals and animal products**
2	**Section II: vegetable products**
3	**Section III: animal or vegetable fats and oils and their cleavage products**
4	**Section IV: Prepared food stuffs, beverages, spirits and vinegar, tobacco and manufactured tobacco substitutes**
5	**Section V: metal products, soils, raw metal and mineral oils**
6	**Section VI: chemical or allied industries products.**
7	**Section VII: plastics and articles thereof, rubber and articles thereof**
8	**Section VIII: raw hides and skins, articles thereof, travel goods, handbags and similar containers**
9	**Section IX: wood and articles of wood, cork and articles of cork and manufactures of straw**
10	**Section X: pulp of wood, paper and paperboard and articles thereof and books**
11	**Section XI: textiles and textile articles**
12	**Section XII: footwear, headgear, umbrellas and their types and artificial flowers**
13	**Section XIII: articles of stone, plaster, cement, asbestos and glass**
14	**Section XIV: traditional precious metals, jewelry and money**
15	**Section XV: ordinary metals and products thereof**
16	**Section XVI: Machinery and mechanical appliances, electrical equipment and parts thereof**
17	**Section XVII: transport equipment**
18	**Section XVIII: Instruments for optical, photographic, film and test and surveillance equipment or measurement, medicine and surgery equipment, and varieties of watchmaking and musical instruments.**
19	**Section XIX: arms, ammunition and their supplies**
20	**Section XX: various products and goods such as furniture, toys and sports equipment.**
21	**Section XXI: art works and antiques.**

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Table 4 shows a model to arrange the structure of the Harmonized System

Chapter No.	Group	HS chapters	HS 6 Diges	Commodity name as for the HS clauses
1		Live Animals		
	0101			
			01011000	Breeding, purebred live horses, donkeys, mules, hinnies
			01011100	Breeding purebred horses
			01011900	Breeding non purebred horses
			01012000	Donkeys, mules, camels - hinnies
			01019000	Breeding, non purebred live horses, donkeys, mules, hinnies
	0102			
			01021000	Live animals from purebred bovines for breeding
			01029000	Live animals from non purebred bovines for breeding
	0103			
			01031000	Live animals from purebred swines for breeding
			01039100	Live animals from non purebred swines for breeding weighing less than 50kg
			01039200	Live animals from non purebred swines for breeding weighing 50kg and more
	0104			
			01041000	Live sheeps
			01042000	Live goats
	0105			
			01051100	Roosters and hens from gallus domesticus species weighing 185gr
			01051200	Live Turkeys weighing 185gr
			01051900	Live ducks, geese and guinea fowls weighing 185gr
			01059200	Roosters and hens from gallus domesticus species weighing 2000gr
			01059300	Roosters and hens from gallus domesticus species weighing more than 2000gr
			01059900	Live ducks, geese and guinea fowls weighing more than 185gr

The Structure of the Harmonized System of Classification

76 06 92 99 00

Chapter
Heading
Sub-Heading
Regional Tariff
National Tariff
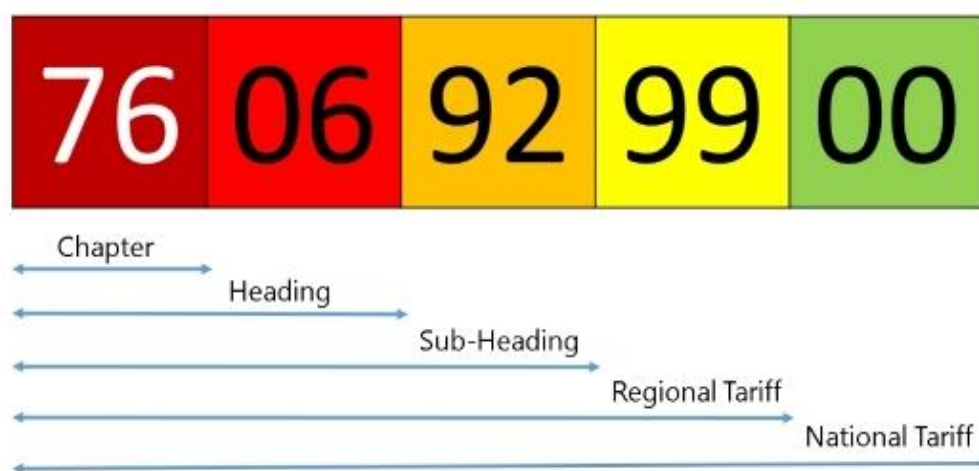
STATISTICAL CLASSIFICATIONS

(C) Standard International Trade Classification (SITC)

* aims to

- Compilation of statistics on international trade of all commodities.
- Enhance the possibility of international comparison between the countries.

* reflects

- The materials used in production.
- Manufacturing stage.
- Uses of goods.
- The importance of commodities in international trade.
- Technological changes.

* Classification structure

- Sections (10)
- Parts (67)
- Groups (261)
- Sub-Groups (1033)
- Elements (3121)

* Sections:

0 - Food and live animals.

1 - Beverages and tobacco.

2 - Raw materials (excluding oil).

3 - Crude oil and related materials.

4 - Plant and animal oils, fats and waxes.

5 - Chemicals and related products.

6 - Manufactured goods classified according to the material.

7 - Equipment and transport means.

8 - Various manufactured goods.

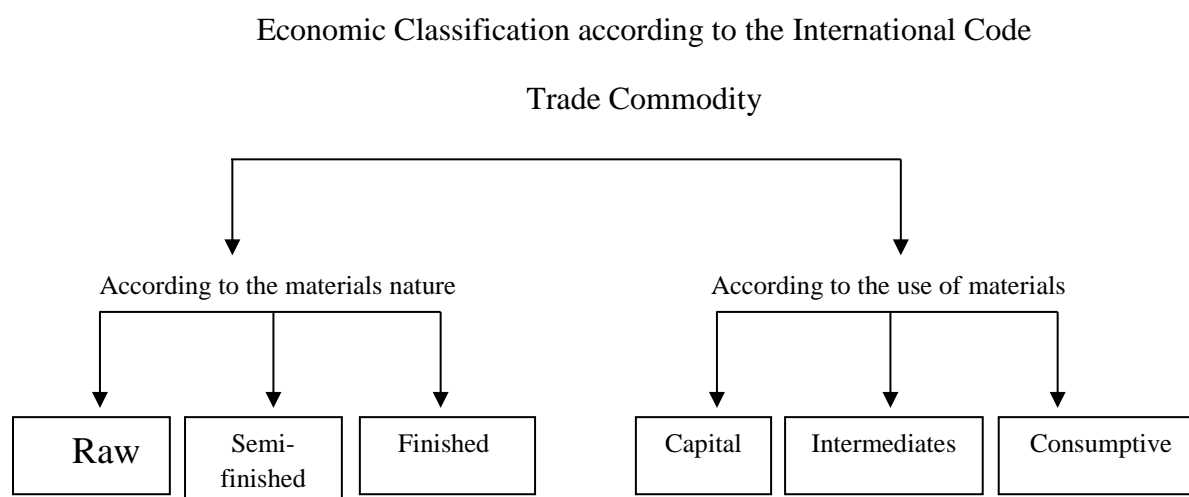9 - Goods not classified in any of the sections above.

(D) Classification by Broad Economic Categories BEC

The Classification by Broad Economic Categories was set in its original version, mainly for the users of the United Nations Statistics Division in summarizing data on international trade by large economic classes of goods and it has been designed to be used as a mean to transform the collected trade data under the Standard International Trade Classification and also the Harmonized System HS to the end-use categories that have significance within the framework of the System of National Accounts, i.e. groups working to bring the three main groups of goods in SNA: Capital goods, Intermediate goods and Consumptive goods. The classification by Broad Economic Categories includes 19 basic categories which can be assembled to bring the three main groups of goods allowing the linkage of trade statistics with other groups of public economic statistics, such as national accounts and industrial statistics - for the purposes of national, regional or global economic analysis.

The Statistical Commission predicted that the classification serves as guidelines for national classifications of imports according to broad economic categories, and it the following :

A- Economic Classification according to the materials nature.
B- Economic Classification according to the use of materials.

According to the following order: -

Economic Classification according to the International Code

Trade Commodity

According to the materials nature			According to the use of materials		
Raw	Semi-finished	Finished	Capital	Intermediates	Consumptive

(E) Central Product Classification CPC:

The Central Product Classification is divided to 10 chapters and the chapters from 0 to 4 are based on the Harmonized System and combine the HS codes in the categories of products suitable for various types of economic analysis in the context of national accounts and this part of the classification, such as the Standard International Trade Classification, allows the reordering of international merchandise trade statistics based on the Harmonized system for analytical purposes. The chapters from 5 to 9 of the CPC, they exceed the harmonized system categories to provide a classification of service products.

STATISTICAL CLASSIFICATIONS

Classification purpose and nature

- Provide a framework for international comparison of statistics relating to goods, services and assets.
- Develop the classification as a basis for better coordination between the various fields of economic statistics and relevant statistics and to strengthen the role of national accounts as an instrument for the coordination of economic statistics.
- The classification is provided basically to reassemble the basic statistics of the original classifications into a unified classification for analytical uses.
- The central product classification provides an inclusive classification of all goods and services.
- The CPC includes all products that could be a target for local or international transactions, or can be included in the inventory, and displays the products that are the result of economic activity.
- A tool to collect and compile all kinds of statistics that require products details as it covers the intermediate and final production or consumption or capital or foreign trade or prices formation.

Classification special coding system

- The coding system is a pyramid scheme, the classification consists of chapters (known by the first number) and sections known (by the first and the second numbers) and groups known (by the first three numbers) and categories known (by the first four numbers) and subcategories known (by the five numbers all together.(

- The chapters special codes are ranging from 0-9, each chapter has been divided into nine sections, at the third digit of the code each division may in turn be divided into nine groups which can be divided into nine categories and then again into nine sub-categories. The classification actually consists of nine chapters and 99 sections and 324 groups, 1266 categories and 2738 sub-categories.

Table 5 shows the Central Product Classification chapters

Code	Description
0	Agriculture, forestry and fishery products
1	Ores and minerals; electricity, gas and water
2	Food products, beverages and tobacco; textiles, apparel and leather products
3	Other transportable goods, except metal products, machinery and equipment
4	Metal products, machinery and equipment
5	Construction work and constructions; land
6	Trade services; hotel and restaurant services
7	Transport, storage and communications services
8	Business services; agricultural, mining and manufacturing services
9	Community, social and personal services

Table 6 shows the CPC structure sequence model

e,"Description"
0,"Agriculture, forestry and fishery products"
01,"Products of agriculture, horticulture and market gardening"
011,"Cereals"
0111,"Wheat and meslin"
01110,"Wheat and meslin"
0112,"Maize (corn)"
01120,"Maize (corn)"
0113,"Rice, not husked"
01130,"Rice, not husked"
0114,"Husked rice"
01140,"Husked rice"
0115,"Barley"
01150,"Barley"
0116,"Rye, oats"
01160,"Rye, oats"
0119,"Other cereals"
01190,"Other cereals"

(F) Classification of Individual Consumption According to Purpose COICOP

It is part of the System of National Accounts of 1993 and it is used in three significant statistical axes, namely: household expenditure and consumption and household budget surveys, indices of consumer prices, International Comparison Program ICP for GDP and constituent expenditures.

The classification of individual consumption by purpose is divided into three parts:

- Sections from 1-12 consumption expenditure per capita of households.
- Section 13: individual consumption expenditures for non-profit institutions serving households.
- Section 14: consumption expenditure per capita of general government

Table 7 shows the structure of the classification of individual consumption by purpose for the first level

Code	Description
01	Food and non-alcoholic beverages
02	Alcoholic beverages, tobacco and narcotics
03	Clothing and footwear
04	Housing, water, electricity, gas and other fuels
05	Furnishings, household equipment and routine household maintenance
06	Health
07	Transport
08	Communication
09	Recreation and culture
10	Education
11	Restaurants and hotels
12	Miscellaneous goods and services
13	Individual consumption expenditure of non-profit institutions serving households (NPISHs)
14	Individual consumption expenditure of general government

Table 8 shows the structure arrangement model of the Classification of Individual Consumption by Purpose

Code	Description
01	Food and non-alcoholic beverages
01.1	Food
01.1.1	Bread and cereals (ND)
01.1.2	Meat (ND)
01.1.3	Fish and seafood (ND)
01.1.4	Milk, cheese and eggs (ND)
01.1.5	Oils and fats (ND)
01.1.6	Fruit (ND)
01.1.7	Vegetables (ND)
01.1.8	Sugar, jam, honey, chocolate and confectionery (ND)
01.1.9	Food products n.e.c. (ND)

(G) Classification of the Functions of Government COFOG

Government Function classification was developed by the OECD and it classifies the government expenditure data, according to the system of national accounts requirements depending on the purpose and the first level of COFOG divides the expenditure into ten "functional" groups and each group is divided into several sections. The following table shows the number and type of functional groups.

Table 9 shows the structure of the Classification of the Functions of Government COFOG by major groups

Code	Description
01	General public services
02	Defence
03	Public order and safety
04	Economic affairs
05	Environmental protection
06	Housing and community amenities
07	Health
08	Recreation, culture and religion
09	Education
10	Social protection

Table 10 shows the structure model of the Classification of the Functions of Government COFOG

Code	Description
01	General public services
01.1	Executive and legislative organs, financial and fiscal affairs, external affairs
01.1.1	Executive and legislative organs
01.1.2	Financial and fiscal affairs
01.1.3	External affairs
01.2	Foreign economic aid
01.2.1	Economic aid to developing countries and countries in transition
01.2.2	Economic aid routed through international organizations
01.3	General services
01.3.1	General personnel services
01.3.2	Overall planning and statistical services
01.3.3	Other general services
01.4	Basic research
01.4.0	Basic research

10. <u>Statistical Classifications Connections and Working Mechanism</u>

<u>(A) The CPC relation with the International Standard Industrial Classification ISIC</u>

The Central Product Classification and the International Standard Industrial Classification are two public purpose classifications, as the Standard Classification of economic activities represents the activity side in these two connected classifications related to the United Nations and each subcategory of the CPC comprises goods or services that are mostly produced in a category or certain categories in the International Standard Classification of All economic activities. In order to meet the CPC users requirements who want to determine the relationship between the Central product Classification and the International Standard Industrial Classification, each sub-category in the Central product Classification includes a reference to the industry or listed Industries in the International Standard Classification of economic activities within which usually most of the designated goods and services are produced. The specified dominant subcategory in the Central Product Classification is shown in the tables that display the detailed structure of the Central Product Classification,

Table (11), a model that shows the relationship between the CPC and the ISIC

First level	Chapter	Second level	Section	Third level	Sub-chapter	Fifth level	sub-item	Forth level	The activity
					CPC				ISIC
0	Agriculture, forestry and fishery products								
		01	Products of agriculture, horticulture and market gardening						
				011	Cereals				
						01110	Wheat and meslin	0111	Cereals and other crops agriculture activity not classified elsewhere
						01120	Maize	0111	Cereals and other crops agriculture activity not classified elsewhere
						01130	Rice, not husked	0111	Cereals and other crops agriculture activity not classified elsewhere
						01140	Husked rice	1531	Manufactuing cereals milling products activity
						01150	Barely	0111	Cereals and other crops agriculture activity not classified elsewhere
						01160	Rye, oats	0111	Cereals and other crops agriculture activity not classified elsewhere
						01190	Other cereals	0111	Cereals and other crops agriculture activity not classified elsewhere

<u>(B) The Harmonized System HS relationship with the Central Product CPC:</u>

There is a close relationship between the Central Product Classification and the Harmonized System, where the sub-categories in the CPC in the chapters from 0 to 4 compose groups and operations that rearrange the whole of the categories in the Harmonized System and as a result, about 1143 sub-categories were created in the Central Product Classification by the use of more than 5000 item and sub-item in the Harmonized System as building blocks for the Central product Classification; Appendix No. 2 shows the relationship between both of them.

- There are several exceptions to the rule saying that each sub-category in the chapters from 0 to 4 correspond to one or more items or sub-items in the Harmonized System. For example, the sub-category 17300 in the CPC (steam and hot water) has no peer in the HS. Another exception is the group 333 in the CPC and its categories related to refined

petroleum products as the category contained in the CPC is equivalent to the entire item of 2710 in the Harmonized System, which is not divided then into sub-items where it was not possible to reach a practical agreement and put definitions to meet customs requirements.

Table (12), a model that shows the relationship between the HS and the Central Product Classification CPC

Chapter on first digit level	CPC Chapter name	Section on second digit level	CPC Section name	Sub-chapter on third digit level	CPC Sub-chapter name	Category on forth digit level	CPC Category name	HS Code	Commodity name as for the HS
0	Agriculture, forestry and fishery products								
		01	Products of agriculture, horticulture and market gardening						
				011	Cereals				
						0111	Wheat and meslin	10011000	Durum sheat
						0112	Maize	100019000	Other
						0113	Rice, not husked	10051000	Maize (Corn) Seed
						0114	Husked rice	10059000	Other
						0115	Barely	10061000	Rice in the husk
						0116	Rye, oats	10062000	Husked rice (brown rice)
						0119	Other cereals	10030000	Barely
								10020000	Rye
								10040000	Oats
								10070000	Grain Sorghum
								10081000	Buckwheat
								10082000	Millet
								10083000	Canay seed
								10089000	Other cereals not specified elsewhere

- The sub-categories for removable goods in the Central Product Classification (0 to 4 chapters) known as each one of them consists of one or more sub-items of the six numbers in the Harmonized System.

(C) HS relationship with the International Standard Industrial Classification of economic activities ISIC

- When the data is converted from the HS to the ISIC that enable to identify the goods trends at the level of each economic activity, whether it was a commercial or a service activity or in the field of transport and communications, or in the field of construction.
- The relationship is interconnected between the classifications and gives a clear view to the data analysts of the quality of high importance for imported goods, which will develop the infrastructure for local industries and thus enhances the production of local goods and export it abroad, as well as reducing the import of goods not representing a great importance which can be manufactured locally through the purchase of the technology and the training of local manpower and reduce the unemployment.

Table (13), a model that shows the relation between the HS and ISIC

Section	Division	ISIC Section name	Group	Group name	Class	CPC Class name	HS Code	Commodity name as for the HS
A	Agriculture, forestry and fishing							
	01	Crop and animal production, hunting and related service activities						
			011	Growing of non-perennial crops				
					0111	Growing of cereals and other crops not classified elsewhere		
							07131010	Seeds of peas of a kind used for sowing
							07131090	other peas (Pisum sativum) not used for sowing
							07132000	Dried chickpeas (garbanzos)
							07133110	Seeds of beans of a kind used for sowing
							07133120	Dried beans, shelled, …etc. but not used for sowing (vigna)
							07133190	Dried beans (Vigna), shelled,…etc. but not used for sowing
							07133210	Seeds of small red (adzuki) beans of a kind used for sowing
							07133220	Dried small red (adzuki) beans, shelled
							07133290	Dried beans, shelled, …etc. but not used for sowing
							07133310	Seeds of kidney beans, including white pea beans of a kind used for sowing
							07133320	Dried kidney beans, including white pea beans, shelled, …etc. not used for sowing
							07133390	Dried beans, shelled, …etc. not used for sowing

(D) The relation between the classification by Broad Economic Categories BEC and the Harmonized System HS

Through the close association between the Harmonized System and the classification by Broad Economic Categories, it is related to the Central Product Classification and the classification by Broad Economic Categories aims to be a way to convert foreign trade data that is collected using the Harmonized System into final use categories meaningful in the national accounts.

Table (14), a model that shows the relation between HS classification and the classification by Broad Economic Categories BEC
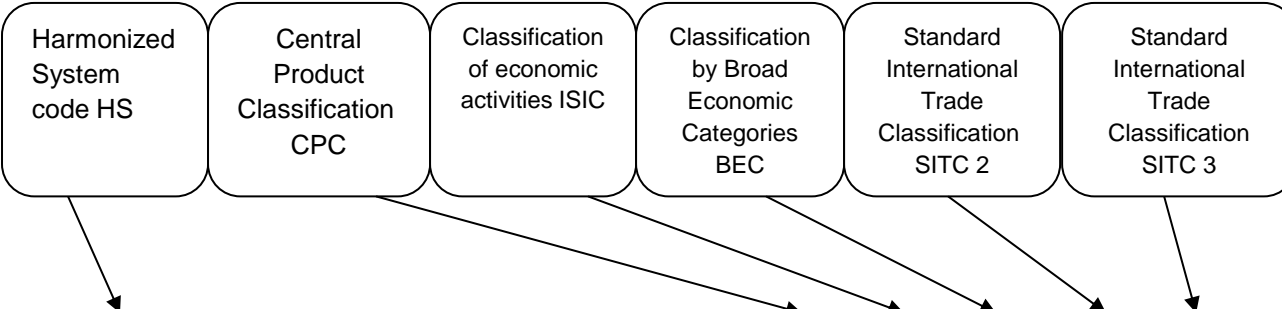
Group	Group Name	Section	Section Name	Chapter	Chapter Name	HS	Item Name
BEC Group	BEC A Det	BEC Sec	BEC A Sec	BEC Code	BEC A Det1		
1	Food and Beverage						
		11	Primary				
				111	Mainly for Industry		
						01011000	Live purebred breeding horses, asses, mules and hinnies
						01011100	Breeding purebred horses
						01011900	Breeding non-purebred horses
						01012000	Asses, mules and camels - hinnies
						01019000	Breeding live other than purebred horses, asses, mules and hinnies
						01029000	Breeding live animals from non-purebred bovines
						01039100	Breeding live animals from non-purebred swines weighing less than 50kg
						01039200	Breeding live animals from non-purebred swines weighing 50kg and more

Practical Example

Here, brief and illustrative examples will be notified about the connection between the Harmonized System and the rest of the other classifications as illustrative tables then a simple explanation.

If we take the first chapter of the Harmonized system "alive animals`, which includes commodity items according to the Harmonized System of the item (01011000) to the tariff item (01069090) we will find that these goods enter within the economic classification in the food and beverage section as mainly preliminary industry commodities and go in alive animals section and animal products in the Central Product Classification and go in the activity of animal husbandry in the classification of economic activities.

| Harmonized System code HS | Central Product Classification CPC | Classification of economic activities ISIC | Classification by Broad Economic Categories BEC | Standard International Trade Classification SITC 2 | Standard International Trade Classification SITC 3 |

HS	Description	CPC	ISIC	BEC	SITC2	SITC3
01011100	Breeding bloodstock	02113	0121	111	00150	001.51
01011900	Breeding non purebred horses	02113	0121	111	00150	001.51
01012000	Asses, camels and mules – Hinnies	02113	0121	111	00150	001.52
01021000	Breeding live animals from purebred bovines	02111	0121	410	00110	001.11
01029000	Breeding live animals from non-purebred bovines	02111	0121	111	00110	001.19
01031000	Breeding live animals from purebred swine	02121	0122	410	00190	001.31
01039100	Breeding live animals from non-purebred swine weighing less than 50 kg	02121	0122	111	00190	001.39
01039200	Breeding live animals from non-purebred swine weighing 50 kg or more	02121	0122	111	00190	001.39
01041000	Live sheep	02112	0121	111	00120	001.21

**The above table can be explained as follows:**

- the commodity code in the Harmonized System (01021000) refers to live animals commodity from breeding purebred cows and the relation between this item in the other classifications can be explained as follows- :

- this item in connected to item (02111) in the Central Product Classification CPC, which means that this item enter in the cattle item under the chapter of live animals.

- This item is connected to the item (0121) in the classification of economic activities, which means that this item enters in the activity of animal husbandry.
- This item is also linked to the item (410) in the expanded classification by economic code, which means that this item fall under capital goods.

The same way goes for the rest of the items, which falls under a certain name and a specific category in the rest of the other classifications   .

11. Use of statistical classifications in economic and population data

The collection, encoding, tabulating, classification and dissemination process of statistical data relays mainly on the classifications and no surveys or censuses can be carried out without them. The guide of economic activities ISIC can be used in several surveys and censuses as a pillar of the work, especially when implementing economic surveys and also when implementing the census, especially, Establishment Census to be classified following the economic activity.

Figure 6 shows the statistical data and their sources
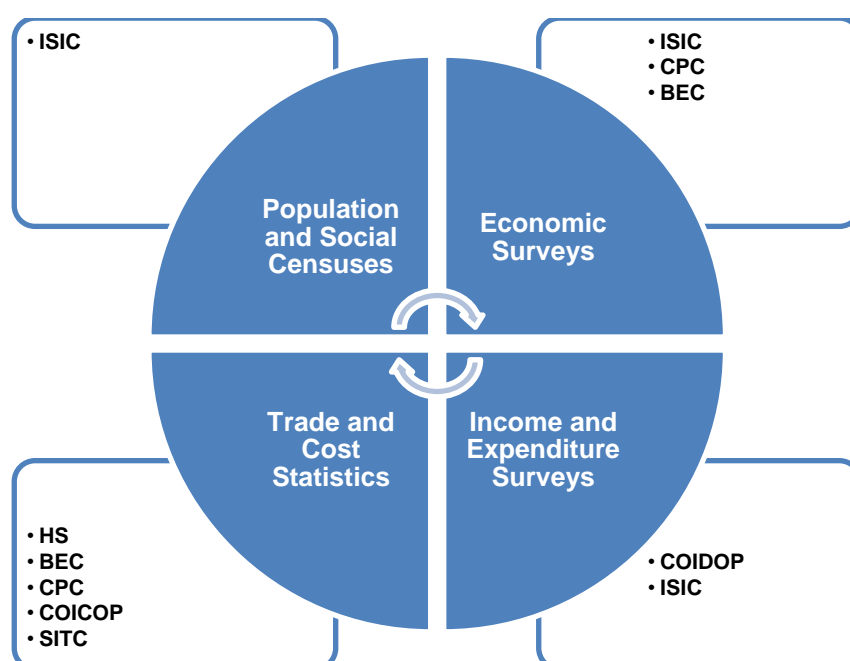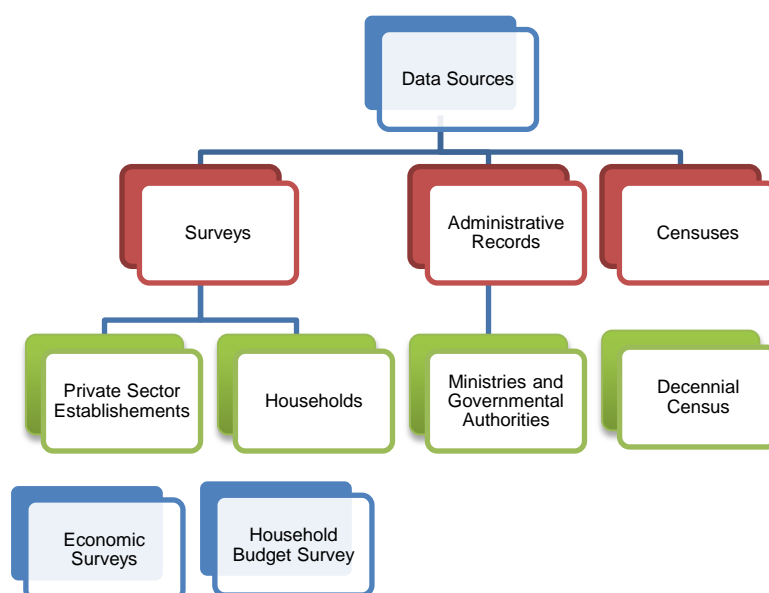
12. Statistical classifications relation with SNA

The SNA is considered a framework in which fall all related statistical classifications and through the system, the economy image is being clearly displayed and enables to identify the changes in specified time intervals.

The objective of the implementation of statistical surveys flows in the end to serve national accounts and, therefore, the use of international statistical classifications internationally used helps in the installation of the national accounts with a high degree of inclusiveness and data coverage and enhance the quality of these indicators and make it viable for international comparison and the preparation of time series that enables the data analysis.

Figure 7 illustrates the classifications relation and its role in the composition of National Accounts

13. Statistical classifications and enhancing the quality of statistical data

Statistical classifications contribute to enhancing the quality of statistical data through the following:

1. Help in raising the degree of inclusiveness and coverage of the data

2. Help in building data based on international classifications rules.

3. Work on the classification, tabulation and presentation of statistical data.

4. Enable the preparation of time series for statistical data.

5. Assist in the preparation of reports viable to international comparisons.

6. Facilitate the collection of statistical data, questionnaire design and encoding.

7. Contribute to the development of programs and statistical systems.

8. Help build statistical organizational structures in accordance with the activities and sectors.

9. Help in raising the reliability of statistical data.

10. Assist in the development of statistical work concepts.

11. Help in finding trained statistical manpower and increase their practical experiences.

14. Statistical classifications, availability and dissemination policy of statistical data

The classifications enables the real contribution in the preparation of the data tables and make them available for dissemination in several sectoral levels and at the level of the main and sub-activities and help decision makers and data users to take maximum benefit of the statistical data and also enable to access and transparency in the dissemination of data at acceptable levels and that:

- The ability to display statistical data on the main and sub-levels and even lower level.

- Assist in the provision of sectoral data.

- Help to display the data and use it in many ways.

- Enable the provision of data according to dissemination policies and maintain individual confidentiality.

- Contribute to the implementation of international recommendations regarding the dissemination and availability in terms of classification and level in accordance with the Data Dissemination System GDDS and Special Data Dissemination Standard SDDS

15. <u>References</u>

- Classifications, Evidences and Methodologies issued by the United Nations
- SNA2008 National Accounts System, United Nations
- A variety of statistical works in the field of classifications of the statistical expert author of this course